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MAY 26 1992

WATER RESOURCES DEPT.  
SALEM, OREGON

388-4255

May 20, 1992

Mr. Steve Brown  
Oregon Water Resources Department  
3850 Portland Road, N.E.  
Salem, Oregon 97310

Re: Eagle Ridge Development Corporation  
Water Right Appropriation Application  
OWRD File Number: G-12905  
W&HP Job Number: 526-0101

Dear Steve:

Earlier this year, Eagle Ridge Development Corporation submitted a groundwater appropriation application, intended to allow expansion of the Eagle Crest Resort. Processing of the application and receipt of the associated permit is critical to the continued success of the Eagle Crest Resort, and we respectfully solicit your assistance.

Our groundwater appropriation application requests quasi-municipal use for the expansion of the resort. An irrigation permit, for the same groundwater well, was issued earlier (reference permit number G-11313). Our application included a hydrogeological analysis and complete test pumping results. The test pump on the existing irrigation well demonstrated a 1500 gpm discharge with no draw down.

Eagle Ridge Development Corporation has worked continuously for approximately two years to obtain the necessary land use approvals to support resort expansion. Immediate expansion of the resort is critical to maintain sales momentum and the associated programs and staff. Delays in water right application processing could lead to delays in land development and dramatically impact operations at the resort.

In addition, the construction weather window in central Oregon is restricted, and delays now could have a significant impact on schedules and costs, by driving construction into winter months.

The economic value of the Eagle Crest Resort to Deschutes County has been carefully documented in Deschutes County land use files. I believe delays in water right application processing will not only adversely impact Eagle Crest, but Deschutes County as a whole.





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WATER RESOURCES DEPT.  
SALEM, OREGON

Mr. Steve Brown  
May 20, 1992  
Page 2

I recognize that you have a significant workload and numerous applications to review, and I would not submit this letter if our situation were not critical. We do appreciate your efforts and assistance, and again respectfully request your approvals for Eagle Crest. Thank you for your consideration.

Very truly yours,  
W&H PACIFIC, INC.

A handwritten signature in cursive script, appearing to read 'Tom Walker'.

Thomas A. Walker, P.E., C.W.R.E.  
Senior Associate

cc: Bill Lyche





GW

# WaterWatch

O F O R E G O N

May 16, 1992

Stephen C. Brown  
Water Resources Department  
3850 Portland Rd. N. E.  
Salem, OR 97310

RE: Application for Permit #G12905 Eagle Ridge Development  
Deschutes River Basin, Deschutes Co., 4.01 cfs, Muni

WaterWatch has reviewed the limited amount of information contained in the public notice of this water right application. Based upon that information, WaterWatch raises the following issues, questions and concerns:

Is there unappropriated water available for this proposed use? How will the Department determine water availability for this proposed use? What will be the cumulative effect of this proposed use, in combination with other, already existing uses of the aquifer?

Is the groundwater source in question in hydraulic connection with surrounding surface waters? If so, what is the amount of surface water depletion and what effect will this proposed use have on instream flows necessary to protect the public's interest in fish, wildlife, recreation and a healthy aquatic system? We oppose an application which in any way reduces surface water flows needed for the public uses that are served by instream water rights.

Given the importance of this groundwater resource, and the Department's limited enforcement staff, it only makes sense to require this applicant to measure and record water use. Measurement not only helps the Department carry out its statutory mandate to promote the control of water resources in Oregon for all beneficial uses, it helps the Department protect the public's interest in assuring the use is within the bounds of the permit. ORS 536.220(1)(a), 537.170(5).

Will this proposed use be compatible with Goal 5 elements of the local comprehensive plan?

It is a high priority of the state to eliminate waste and improve the efficiency of water use. OAR 690-410-060(1). Statewide policy also calls upon water users to use and maintain their water systems in a manner consistent with the state's priority. What conditions are proposed for this permit that will carry out and encourage compliance with state policy?

Is this an existing illegal use of water? If so, will the continued use without a permit cause harm to existing water rights and the public interest?

We request copies of the draft permit and the groundwater staff's analysis of this application.

Sincerely,

Jim Myron

bc:



May 11, 1992

EAGLE RIDGE DEVELOPMENT CORPORATION  
PO BOX 1215  
REDMOND, OR 97756

REFERENCE: File(s) G-12905

We received your application(s) proposing to use water, along with supporting data and fees. Your receipt is enclosed unless you received it earlier. The application has been assigned the above referenced file number and will be reviewed in detail as time allows. If you need to call or write to us, be sure to reference the file number(s) listed above so we may assist you promptly.

Applications which are received in proper form with required maps, supporting data and fees can be considered for approval by issuance of permits following a mandatory 60-day waiting period and after public interest matters are resolved.

Processing of applications which require additional information will be delayed further. If you feel that a delay in the processing of your application will cause a hardship, please advise in writing.

If the application is approved, the use allowed by the permit will be subject to the Water Resources Commission's Basin Program statements, instream flow requirements, and demands of prior rights.

If you have any questions, please contact the Water Right Section at the telephone number referenced below.

cc: CWRE



---

3850 Portland Rd NE  
Salem, OR 97310  
(503) 378-3739  
FAX (503) 378-8130



Land Use Information Form: Permits, Hydroelectric Licenses, Water Uses In Addition to Classified Uses

*This information is needed to determine compatibility with local comprehensive plans as required by ORS 197.180. The Water Resources Department will use this and other information to evaluate the water use application. DO NOT FILL OUT THIS FORM IF water is to be diverted, conveyed, and/or used only on federal lands.*

Applicant's Name: Eagle Ridge Development Corporation  
Address: P.O. Box 1215  
City: Redmond State: OR Zip: 97056 Day Phone: 923-0807

Please provide information as requested below for all tax lots on or through which water will be diverted or used. (Attach extra sheets as necessary.) Applicants for municipal use, or irrigation uses within irrigation districts, may substitute existing and proposed service area boundaries for the tax lot information requested below.

| Tax Lot or Local I.D.# | Plan Designation/Zoning<br>(e.g. Rural Residential/RR-5) | Check All That Apply |                |                 |
|------------------------|----------------------------------------------------------|----------------------|----------------|-----------------|
|                        |                                                          | Water Diverted       | Water Conveyed | Water Use       |
| TL 1500 T15            | SR 12 E EFU 40                                           | X                    | X              | Quasi-Municipal |
| TL 100 & 101           | T15S R 12E SEC 22 EFU 40                                 | X                    | X              | Quasi-Municipal |
| TL 1500 T15            | S R 12E SEC 23B EFU 40                                   | X                    | X              | Quasi-Municipal |

Please list all counties and cities within which water is proposed to be diverted, conveyed, and/or used. Deschutes County

The following section must be completed by a planning official from each county and city listed unless your project will be located entirely within city limits. In this case, only the city planning agency must complete this form. Please request extra forms as needed.

**For Local Government Use Only**

Local government planning officials are to complete the remainder of this form. If this form can not be completed while the applicant waits, please sign and detach the receipt as instructed below. Please mail the completed form directly to the Water Resources Department (3850 Portland Rd. NE, Salem, OR, 97310) within 60 days of the date of receipt as shown below. If the form is not completed within 60 days, the Department may take action to approve the water use.

a) Check the appropriate box below and provide requested information.

- ☐ Land uses to be served by proposed water uses (including proposed construction) are allowed outright or are not regulated by your comprehensive plan. Cite applicable ordinance section(s): \_\_\_\_\_. Go to section b) on reverse side.
- ☒ Land uses to be served by proposed water uses (including proposed construction) involve discretionary land use approvals as listed in the table below. **Note:** Please attach documentation of applicable local land use approvals which have already been obtained. (Record of Action plus any accompanying findings is sufficient.)

| Type of<br>Land Use Approvals Needed<br>(e.g.: plan amendments, rezones,<br>conditional use permits, etc.) | Cite Most Significant,<br>Applicable Plan Policies &<br>Ordinance Section References | Please check the box that applies: |                   |                                 |
|------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|------------------------------------|-------------------|---------------------------------|
|                                                                                                            |                                                                                      | Already<br>Obtained                | Already<br>Denied | Being Pursued<br>Satisfactorily |
| Conditional Use Permit                                                                                     | Co-Code 18.113.050 (11) and                                                          |                                    |                   |                                 |
| Site Plan Review                                                                                           | 18.113.070 (K)                                                                       |                                    |                   |                                 |
|                                                                                                            |                                                                                      |                                    |                   |                                 |
|                                                                                                            |                                                                                      |                                    |                   |                                 |
|                                                                                                            |                                                                                      |                                    |                   |                                 |
|                                                                                                            |                                                                                      |                                    |                   |                                 |

(over)

### Receipt for Request for Land Use Information

WRD Applicant Name: \_\_\_\_\_

This receipt must be signed by a local government representative and returned to the applicant for inclusion in the WRD application IF the local government can not provide the above requested land use information while the applicant waits.

City or County: DeKalb County  
Staff Contact: George J. Read Phone: 388-6575  
Signature: George J. Read Date of Information Request: \_\_\_\_\_  
(over)



(For Local Use Continued)

b) Please provide printed name and written signature.

Name: George J. Read

Title: Planning Director

Date: 3-19-92

Phone: 388-6575

Signature: George J. Read

Local governments are invited to express special land use concerns or make recommendations to the Department regarding this proposed use of water below, or on a separate sheet. For additional information call Roberta Jortner or Rick Bastasch at 378-3671.

Additional Comments:

A land use application has not yet been filed.

The applicant has had pre-application discussions with  
the County. Attached are county standards and criteria for  
water use in a Destination Resort.



## EAGLE CREST PARTNERS LTD. &amp; AFFILIATES REDMOND, OREGON 97756

0031486

| DATE          | INVOICE NO. | DESCRIPTION     | INVOICE AMOUNT | DEDUCTION                                                         | BALANCE |
|---------------|-------------|-----------------|----------------|-------------------------------------------------------------------|---------|
| 4-30-92       | 430         | CIP E/R LOTS    | 450.00         | .00                                                               | 450.00  |
|               |             |                 |                | RECEIVED<br>MAY 14 1992<br>NATION-UNION CREDIT<br>BALANCE, OREGON |         |
| CHECK<br>DATE | 4-30-92     | CHECK<br>NUMBER | 31486          | TOTALS                                                            | 450.00  |
|               |             |                 |                |                                                                   | .00     |
|               |             |                 |                |                                                                   | 450.00  |

PLEASE DETACH AND RETAIN THIS PORTION FOR YOUR RECORDS.





Application No. 6-12905  
Permit No.

RECEIVED

MAY 04 1992

WATER RESOURCES DEPT.  
SALEM, OREGON

April 28, 1992

Mr. Steve Brown  
Oregon Water Resources Department  
3850 Portland Road, N.E.  
Salem, Oregon 97310

Re: Eagle Ridge Development Corporation  
Water Right Appropriation Application  
526-0101

Dear Steve:

I have enclosed a groundwater appropriation application, four copies of an application map, and a land use compatibility statement for a proposed expansion of water rights. In addition, I have enclosed an application fee in the amount of \$450.00. The application fee was calculated as noted below:

|                                                        |                  |
|--------------------------------------------------------|------------------|
| Examination Fee                                        | \$ 200.00        |
| Initial One CFS Quasi-Municipal Use                    | \$ 100.00        |
| Each Additional CFS Quasi-Municipal Use @ \$50.00/each | \$ 150.00        |
| <b>Total</b>                                           | <b>\$ 450.00</b> |

On August 12, 1991, Eagle Ridge Development Corporation was granted permit number G-11313 to appropriate groundwater for golf course irrigation and associated golf course commercial activities. Subsequently, two wells have been constructed and land use approvals have been obtained for residential development. A copy of our irrigation permit and well logs are enclosed for your review and use. A hydrogeologic study including pump test results for two wells is also enclosed.

At this time, Eagle Ridge Development Corporation is completing construction of the initial 18-hole golf course. Based upon pump test results from the initial production well, an adequate water supply will be available for irrigation and initial residential development. When the second 18-hole golf course is constructed, we expect to drill an additional well to provide the necessary irrigation and domestic supplies.

Well locations shown on the attached application map are intended to coincide with permit number G-11313, and the subsequent OWRD correspondence dated October 18, 1991. No wells in addition to these on permit G-11313 are proposed.

We have designated a quasi-municipal use on the enclosed application and intend water to be utilized for domestic, commercial, landscape irrigation, fire protection, construction watering, lake maintenance, swimming pools, and similar resort related purposes.





Mr. Steve Brown

April 28, 1992

Page 2

In addition, we expect to construct a pipeline between the Eagle Ridge well and the existing Eagle Crest Resort to allow a reliable back-up supply for both projects. Typically, the back-up supply will only be utilized periodically, but provides a significant reliability factor for all residents. For this reason, I have included the Eagle Crest Resort project, and other adjacent lands, that are expected to be within the domestic water system service district.

The existing and proposed Eagle Ridge wells will be utilized for both irrigation and domestic purposes, through appropriate valving and piping networks. Approved backflow prevention assemblies will be provided at all connection points to irrigation systems. All use of domestic water will be regulated by the Oregon Health Division and the Public Utility Commission.

Please consider the enclosed documents and contact me with any questions or needs for additional information. Your assistance is sincerely appreciated and your advice solicited.

Very truly yours,

W&H Pacific

A handwritten signature in cursive script that reads 'Tom Walker'.

Thomas A. Walker, P.E., C.W.R.E.  
Senior Associate

cc: Bill Lyche





Application No. G-12905  
Permit No.

RECEIVED  
OCT 22 1991

Oregon

W & H PACIFIC INC.

WATER  
RESOURCES  
DEPARTMENT

October 18, 1991

Eagle Ridge Development Corporation  
P.O. Box 1215  
Redmond, OR 97756

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MAY 04 1992

WATER RESOURCES DEPT.  
SALEM, OREGON

Reference: File G-12429, Permit G-11313

The Department has reviewed your request to change the location of the wells as authorized under your permit G-11313.

Staff has concluded that your proposal to place the wells no closer than 2000 feet from the Deschutes River is acceptable and will be allowed under your permit.

If you have any questions, please contact me.

Sincerely,

Stephen C. Brown  
Senior Water Rights Specialist  
Field Operations Division

cc: Mr. Tom Walker, PE, CWRE  
Mr. Donn Miller, WRD  
Mr. Bob Main, Region Manager

0550



3850 Portland Rd NE  
Salem, OR 97310  
(503) 378-3739  
FAX (503) 378-8130

## Description of Water Use

Application No. 6-12905

**Note to Applicant:** This sheet will provide local planning staff with a basic description of your proposed water use. Please fill out this sheet before bringing the attached land use form to your local planning office. It will help local planning offices complete your land use information form quickly.

**Note to Local Planning Officials:** Please initial this sheet. Do not separate it from the land use information form. If needed, please make a separate copy for your records.

Applicant Name: Eagle Ridge Development CorporationAddress: P.O. Box 1215  
Redmond, OR 97056Phone: 923-0807

MAY 04 1990

WATER RESOURCES

Please indicate what you will use the water for. Check all boxes that apply and fill in the blanks with key characteristics of the project

☐ Irrigation (crop type, golf course, nursery or greenhouse): \_\_\_\_\_

☐ Livestock (type of livestock, feedlot, slaughterhouse): \_\_\_\_\_

☒ Residential (# units, single or multi-family, # lots if partition or subdivision): \_\_\_\_\_

Approximately 500 single or multi-family units

☒ Commercial (i.e., retail, office, restaurant, gas station, hotel, service, etc.): \_\_\_\_\_

Retail, restaurant, hotel, recreational facilities, etc.

☐ Industrial (i.e., factory, pulp mill, research and development, processing, etc.): \_\_\_\_\_

☐ Institutional (i.e., school, library, etc.): \_\_\_\_\_

☐ Mining (aggregate, metal, open pit, placer, etc.): \_\_\_\_\_

☐ Recreation (park, campsite, pond, etc.): \_\_\_\_\_

☐ Fish and Wildlife (pond, hatchery, etc.): \_\_\_\_\_

☐ Hydropower (dam, reservoir, power generating or transmitting facilities): \_\_\_\_\_

☐ Other (Name and list key characteristics): \_\_\_\_\_

| Indicate sources for the proposed water use below:                              | Indicate the estimated quantity of water the use will require.                      |
|---------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| <input type="checkbox"/> Surface Water<br>Name sources: _____<br>_____<br>_____ | _____ Cubic feet per second.<br><u>± 500</u> Gallons per minute.<br>_____ Acre-Feet |
| <input type="checkbox"/> Reservoir or pond                                      |                                                                                     |
| <input checked="" type="checkbox"/> Ground Water                                |                                                                                     |



# IMPORTANT MESSAGE

FOR WRIG

DATE 9/14 TIME 11:15 A.M.  
P.M.

M Sandra Sands

OF Alliance for Resp Land

PHONE 548-8643 Use

AREA CODE

NUMBER

EXTENSION

☐ FAX

☐ MOBILE

AREA CODE

NUMBER

TIME TO CALL

TELEPHONED

PLEASE CALL

CAME TO SEE YOU

WILL CALL AGAIN

WANTS TO SEE YOU

RUSH

RETURNED YOUR CALL

WILL FAX TO YOU

MESSAGE

WR objection  
G 12905

6-12742 - offsite  
max fev

SIGNED WR

TOPS



FORM 4005  
LITHO IN U.S.A.



Application No. G-12905  
Permit No. [redacted]

MAY 04 1992

WATER RESOURCES DEPT.  
SALEM, OREGON

RECEIVED  
MAR 9 1992

RECEIVED  
MAR 22 1992

W & H PACIFIC INC.

March 5, 1992

Mr. George Read  
Deschutes County Planning Director  
1130 N.W. Harriman  
Bend, Oregon 97701

Re: Eagle Crest  
Water Right Applications  
526-0101

Dear George:

Eagle Crest is in the process of completing applications for additional water rights. The enclosed land use compatibility statement is a standard Oregon Water Resources Department form, and is required as a part of our water right application. Your review and execution of this form are respectfully requested.

Eagle Crest has quasi-municipal water rights of record, together with irrigation water rights for the golf course and other open space areas. Eagle Crest recently constructed a well on the west side of the Cline Falls Highway, primarily to irrigate the golf course. We believe the well will have significant capacity, in excess of that required for golf course irrigation. Our current application is intended to allow use of the excess capacity to supplement our existing domestic water supply system. The proposed domestic water supply system for Eagle Crest will inter-tie all wells, pumps, reservoirs, and distribution systems to increase reliability, capacity, and provide redundant safeguards for the entire project. Our current application will include quasi-municipal rights on the recently constructed wells, and cover the existing resort as well as the proposed expansions.

Obtaining water right permits has become a very long and cumbersome process and it is critical that this process be initiated as soon as possible. Your assistance in this matter is appreciated. Please never hesitate to contact Bill Lyche or me with any questions or needs for additional information. Thank you for your assistance.

Very truly yours,  
W&H Pacific

Thomas A. Walker, P.E., C.W.R.E.  
Senior Associate

cc: Bill Lyche





services such as police and fire will be provided on the site to serve the proposed development.

- J. Streams and Drainage. Unless otherwise agreed to in writing by the adjoining property owner(s), existing natural drainages on the site will not be changed in any manner which interferes with drainage patterns on adjoining property. All surface water drainage changes created by the development will be contained on site in a manner which meets all standards of the Oregon State Department of Environmental Quality (DEQ). The erosion control plan for the subject development will meet all standards of ORS Chapter 468.

K. Adequate water will be available for all proposed uses at the destination resort, based upon the water study and a proposed water conservation plan. Water use will not reduce the availability of water in the water impact areas identified in the water study considering existing uses and potential development previously approved in the affected area. Water sources shall not include any perched water table. Water shall only be taken from the regional aquifer. Where a perched water table is pierced to access the regional aquifer, the well must be sealed off from the perched water table.

- L. The wastewater disposal plan includes beneficial use to the maximum extent practicable. Approval of the CMP shall be conditioned on applicant's making application to DEQ for a Water Pollution Control Facility (WPCF) permit consistent with such an approved wastewater disposal plan. Approval shall also be conditioned upon applicant's compliance with applicable Oregon Administrative Rules regarding beneficial use of waste water, as determined by DEQ. Applicant shall received approval of a WPCF permit consistent with this provision prior to applying for approval for its Final Master Plan under this Chapter.
- M. The resort will mitigate any demands it creates on publicly owned recreational facilities on public lands in the surrounding area.
- N. Site improvements will be located and designed to avoid or minimize adverse effects of the resort on the surrounding land uses. Measures to accomplish this may include establishment and maintenance of buffers between the resort and adjacent land uses, including natural vegetation and appropriate fences, berms, landscaped areas and similar types of buffers; and setback of structures and other developments from adjacent land uses.



adverse effects or conflicts;

Permit No.

10. A description of the proposed method for providing emergency medical facilities and services and public safety facilities and services including fire and police protection.

11. A study prepared by a hydrologist, engineering geologist or similar professional certified in the State of Oregon describing:

- a. An estimate of water demands for the destination resort at maximum buildout, including a breakdown of estimated demand by category of consumption, including but not limited to residential, commercial, golf courses and irrigated common areas;
- b. Availability of water for estimated demands at the destination resort, including (1) identification of the proposed source; (2) identification of all available information on ground and surface waters relevant to the determination of adequacy of water supply for the destination resort; (3) identification of the area that may be measurably impacted by the water used by the destination resort (water impact area) and an analysis supporting the delineation of the impact area; and (4) a statistically valid sampling of domestic and other wells within the impact area.
- c. A water conservation plan including an analysis of available measures which are commonly used to reduce water consumption. This shall include a justification of the chosen water conservation plan. The water conservation plan shall include a waste water disposal plan utilizing beneficial use of reclaimed water to the maximum extent practicable.

For the purposes of this section, beneficial uses shall include, but are not limited to:

- (1) Irrigation of golf courses and greenways;
- (2) Establishment of artificial wetlands for wildlife habitation.

12. An erosion control plan for all disturbed land, as required by ORS Chapter 468. This plan shall include storm and melt water erosion control to be



APPLICATION FILE  
PRIORITY DATE

APPLICATION FILE G12905  
PRIORITY DATE

### MINIMUM REQUIREMENTS TO FILE

Name and mailing address  
Source of water  
Quantity of water  
Location of project  
Use of water  
Signature of applicant  
Allowable use by policy  
State Engineer withdrawal  
Legislative withdrawal  
Land use approved pending

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Application date stamped per money receipt date  
Stream Indexed  
Stream Code \_\_\_\_\_  
Scenic Waterway

- 1) Concluded - Scenic-Reg Ack letter
- 2) Under Study - Scenic-Ack letter
- 3) Basin 2 - Willamette-Ack letter

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Plat Carded and copy made YES NO  
Conflicts (well \_\_\_\_\_ surface \_\_\_\_\_) — X  
Prior ISWR # \_\_\_\_\_ —  
Within Irrigation District \_\_\_\_\_ (name) \_\_\_\_\_

\_\_\_\_\_

District excerpt received  
Entered in Paradox  
Prepare six copies of Draft Permit  
Send one copy to Data Center

5/12

cu

Stamp contents with application number  
Mail/Provide copies of draft permits to DEQ, ODFW,  
PARKS, AND WATERMASTER  
Mail ack letter (provided by Data Center) with  
receipt to applicant, cc to CWRE and file  
Place label on file and card  
If dam is over 10 feet or storage exceeds 9.2 AC-FT,  
route file to Dam Safety Section  
Notify Irrigation District

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|                                          | YES      | NO    |
|------------------------------------------|----------|-------|
| Ownership Statement                      | _____    | _____ |
| Name and address of all owners           | _____    | _____ |
| Other landowners notified                | _____    | _____ |
| Legal Description                        | _____    | _____ |
| Need Commission review                   | _____    | _____ |
| _____ Requests greater than 5.0 cfs      | _____    | _____ |
| _____ Dam height greater than 20 feet    | _____    | _____ |
| _____ Storage greater than 100 acre-feet | _____    | _____ |
| _____ Out of Basin diversion             | _____    | _____ |
| _____ Groundwater recharge project       | _____    | _____ |
| _____ Other substantial public interest  | _____    | _____ |
| GW comments received                     | resolved | _____ |
| ODFW comments received                   | resolved | _____ |
| DEQ comments received                    | resolved | _____ |
| Interest Groups                          | _____    | _____ |
| Water availability received              | _____    | _____ |
| Objections received                      | resolved | _____ |
| Protest received                         | resolved | _____ |
| Management Codes                         | _____    | _____ |

REMARKS: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

TOTAL: \_\_\_\_\_  
REFUND: \_\_\_\_\_  
DEFICIENT: 702

**Summary of Water Resources References in Goals  
and Rules for Goals**

**Goal 3: Agricultural Lands**

*Goal Statement:*

Definition of agricultural land includes consideration of "existing and future availability of water for farm irrigation purposes."

*Guidelines:*

Plans for the preservation and maintenance of farm land and farm use should consider the carrying capacity of the area's water resources.

*Implementation:*

Extension of water supplies into rural areas should meet the needs of agriculture, farm use, and non-farm uses.

Services that need to pass through agricultural lands should not be connected with any use not allowed under ORS 215.203 and 215.213.

*OAR 660-05:*

No reference to water.

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**Goal 4: Forest Lands**

*Goal Statement:*

The definition of forest lands includes lands "needed for watershed protection." Forest uses include watershed protection, soil protection from water, and maintenance of clean water.

*Guidelines:*

Plans for the preservation of forest lands for forest uses should consider the carrying capacity of the area's water resources.

*OAR 660-06:*

No reference to water.



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**Goal 5: Open Spaces, Scenic and Historic Areas, and Natural Resources**

*Goal Statement:*

Water areas, wetlands, watersheds, groundwater, significant natural areas, and lands needed for open space must be inventoried. Natural areas include water that has retained its natural character or that is important for habitat. Open space includes lands that, if preserved, would protect streams or water supplies. Potential and approved federal wild and scenic rivers and state scenic waterways must also be inventoried.

*Guidelines:*

Reservoir sites should be identified and protected against irreversible loss, especially for hydro.

Plans for open space, scenic areas, and natural resources should consider the water resources of the planning area.

*Implementation:*

Streamflow and water levels should be protected and managed at a level adequate for fish, wildlife, pollution abatement, recreation, esthetics and agriculture.

*OAR 660-16:*

No reference to water.

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**Goal 6: Air, Water and Land Resources Quality**

*Goal Statement:*

Discharges are to be measured with respect to the water resources of the applicable river basins included in state environmental quality statutes, rules, standards, and implementation plans.

*Guidelines:*

Plans should buffer lands uses which create conflicting requirements and impacts upon water resources.

All plans and programs affecting waste and process discharges should be coordinated within the applicable river basins described in state environmental quality statutes, rules, standards and implementation plans.

*Implementation:*

No reference to water.

*No OARs for Goal 6*

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**Goal 7: Areas Subject to Natural Disasters and Hazards**

*Goal Statement:*

Areas of natural disasters and hazards are defined as areas subject to "natural events" including stream flooding and "ground water".

*Guidelines:*

Plans for areas of natural disasters and hazards should consider the water resource carrying capacity of the planning area.

*Implementation:*

Natural hazards that could result from new developments, such as runoff from paving projects, should be evaluated and provided for.

*No OARs for Goal 7.*

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**Goal 8: Recreational Needs**

*Goal Statement:*

For destination resorts, important natural features including rivers, streams, and significant wetlands must be maintained. Riparian vegetation within 100 feet of rivers, streams, and significant wetlands must be maintained. Key facilities intended to serve the entire development must be physically provided or guaranteed through surety bonding. A "self-contained" development means that water and other facilities are provided on-site and are limited to the needs of the resort.

*Guidelines:*

Plans for recreation should consider the carrying capacity of the planning area's water resources.

*Resort Siting:*

Plans and ordinances should prohibit or discourage alterations and structures in the 100 year floodplain.



---

**Goal 9: Economy of the State**

*Goal Statement:*

Plans must be based on inventories of areas suitable for increased economic growth after considering the availability of renewable resources.

*Guidelines:*

Economic development projections and comprehensive plans should consider the availability of the necessary natural resources to support expanded industrial development and populations.

Plans should designate the type and level of public facilities and services needed to support proposed economic development.

Plans directed toward economic diversification and improvement should consider the water resources carrying capacity of the planning area.

*Implementation:*

No reference to water.

*OAR 660-09:*

No reference to water.

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**Goal 10: Housing**

*Goal Statement:*

No reference to water.

*Guidelines:*

Plans for housing should consider the water resources carrying capacity of the planning area.

*Implementation:*

No reference to water.

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**Goal 11: Public Facilities and Services**

*Goal Statement:*

No reference to water.

*Guidelines:*

Plans for public facilities should consider the water resources carrying capacity of the planning area.

*Implementation:*

No reference to water.

*OAR 660-11:*

Facility plans must address water necessary to support the land uses designated in the comprehensive plans within an urban growth boundary containing a population greater than 2,500. Plans for public facility systems include: sources of water and types of treatment; storage, pumping, and primary distribution; and major storm sewer drainageways, including streams, ditches, and retention basins. Public facilities plans must also include an inventory and assessment of the system elements, and policy statements or urban growth management agreements identifying the provider of each public facility system.

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**Goal 12: Transportation**

*Goal Statement:*

No reference to water resources.

*Guidelines:*

Plans for transportation should consider the water resources carrying capacity of the planning area.

*Implementation:*

No reference to water.

*No OARs for Goal 12*



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**Goal 13: Energy Conservation**

*Goal Statement:*

No reference to water.

*Guidelines:*

Plans for energy conservation should consider the existing and potential renewable energy sources in the planning area. Renewable energy sources include water and geothermal heat.

*Implementation:*

No reference to water.

*No OARs for Goal 13*

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**Goal 14: Urbanization**

*Goal Statement:*

No reference to water. However, establishment of urban growth boundaries must consider the orderly and economic provision for public facilities and services.

*Guidelines:*

Plans providing for the transition from rural to urban land use should consider the existing and potential renewable energy sources in the planning area.

*Implementation:*

No reference to water.

*No OARs for Goal 14*

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**Goal 15: Willamette River Greenway**

*Goal Statement:*

Inventories of the following are required: areas of annual flooding and flood plains, hydrological conditions, and other water uses in or near the Greenway.

*Guidelines:*

Extraction of known aggregate deposits may be permitted subject to compliance with state laws and local laws designed to minimize adverse effects on water quality and streamflow.

An agency receiving an application for a permit to conduct an activity on waters within the Greenway must immediately forward a copy of the request to the Department of Transportation.

Government agencies may not authorize or allow intensification, change of use or development on lands within the boundaries of the Greenway compatibility review area established by cities and counties without first giving written notice to DOT by immediately forwarding a copy of the request by certified mail -- return receipt requested. Notice of the action taken by the agency must be furnished to DOT. Change of use is defined as making a different use of the land or water than that which existed on December 6, 1975. It includes a change which requires construction or alteration of the land or water outside of existing buildings or structures and which substantially alters or affects the land or water. Modifications of existing structures or the construction or placement of such subsidiary structures or facilities as are usual and necessary to the use of existing improvements are not considered a change of use.

*Implementation:*

No reference to water.

*No OARs for Goal 15*



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**Goal 16: Estuarine Resources**

*Goal Statement:*

No reference to water resources, other than maintenance of water quality.

The State Water Policy Review Board, assisted by the Water Resources Department, the Department of Fish and Wildlife, the Department of Environmental Quality, the Division of State Lands, and the U.S. Geological Survey must consider establishing minimum fresh-water flow rates and standards so that resources and uses of the estuary will be maintained.

In estuarine areas the following WRC authorities are of special concern: Appropriation of Water (ORS 537.010-537.990, and 543.010-543.620).

*Guidelines:*

Water characteristics should be inventoried.

*OAR 660-17:*

Alteration is defined as any man-caused change in the environment including hydraulic change or changes that affect water quality.

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**Goal 17: Coastal Shorelands**

*Goal Statement:*

Inventories must be provided on the nature of hydrologic hazards and shoreland values in sufficient detail to establish a sound basis for water use management.

Coastal shorelands are to include natural or man-made riparian resources, especially vegetation necessary for stabilization. Shorelands that are committed to non-resource uses especially suited for water-dependent uses must be protected for water-dependent recreational, commercial, and industrial uses. Assessment of suitability should include potential for recreational use of riparian resources.

*Guidelines:*

Hazard areas must be inventoried, including areas where use may result in significant hydraulic alteration and areas in the 100 year floodplain. "Hydrography" must also be considered.

*No OARs on Goal 17.*

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**Goal 18: Beaches and Dunes**

*Goal Statement:*

Comprehensive plans must provide for diverse and appropriate use of beaches and dunes consistent with their water resource values. Inventories must be describe the groundwater resources of beaches and dunes.

*Implementation Requirements:*

Implementing actions and permit reviews must protect the groundwater from drawdown which would lead to loss of stabilizing vegetation, loss of water quality, or intrusion of salt water in water supplies. Building permits for single family dwellings are exempt from this requirement if appropriate findings are provided in the comprehensive plan or at the time of subdivision approval.

*Guidelines:*

No reference to water resources.

*No OARs on Goal 18.*



# OREGON'S STATEWIDE PLANNING PROGRAM\*

The State of Oregon has an extensive program for land-use planning. It is not the first or only statewide planning effort to be undertaken in this country, but it is one of the most comprehensive.

## *Aims of the Program*

The program has many aims and objectives, the most important of which are expressed in 19 statewide planning goals. Generally, the program is intended to

- conserve farm land, forest land, coastal resources, and other important natural resources;
- encourage efficient development;
- coordinate the planning activities of local governments and state and federal agencies;
- enhance the state's economy; and
- reduce the public costs that result from poorly planned development.

## *Legislative History*

The present system for statewide planning originated with Senate Bill 100 in the 1973 Legislature. Enacted as *The Oregon Land Use Act*, SB100 became effective on October 5, 1973.

The basic system from SB100 remains intact, but numerous adjustments and refinements have been made through subsequent legislation. The most notable recent measures were Senate Bill 237 and House Bill 2295, both from the 1983 Legislature. SB 237, *The Marginal Lands Act*, created optional provisions for counties to allow residential development on certain less productive farm and forest lands. HB 2295, *The Governor's Land Use Reform Act*, introduced changes to streamline the planning process and enhance economic development.

Statewide planning has been referred to and affirmed by Oregon's voters three times: in 1977 (the vote was 57 percent for, 43 percent against); 1978 (61 percent for, 39 percent against); and 1982 (55 percent for, 45 percent against). An initiative measure against the program in 1984 failed to get enough signatures to be placed on the ballot.

## *The State's Role*

Prior to the 1970's, the state's role in land-use planning was small. The state had enabling legislation that allowed cities and counties to plan and zone land; local governments did the actual planning and zoning largely at their discretion. Some jurisdictions had very effective plans and land-use ordinances; some had none at all.

With Senate Bill 100, the state *required* all of Oregon's 242 cities and 36 counties to adopt comprehensive plans and land-use regulations. It specified planning concerns that had to be addressed, set statewide standards which local plans and ordinances had to meet, and established a review process to ensure that those standards were met.

The state asserted greater responsibility in an area that traditionally had been a local concern, but the state also gave over some of its traditional powers to local governments: it promised that state agencies would work with local governments to develop coordinated comprehensive plans and that certain state-agency programs would conform to local plans after their approval by LCDC.

\*This is a brief summary of a complex topic. These statements should not be regarded as complete expressions of Oregon's planning laws or as official policies of the state's Land Conservation and Development Commission.  
Printed February, 1986

Because SB 100's program was new and complicated and because it altered the traditional state-local relationship in planning, many people misunderstood it. They concluded that the state had taken over land-use planning. The facts of the matter are these:

- The State of Oregon does not write or adopt comprehensive plans; cities and counties do.
- There is no "state land-use plan"; rather, there is a mosaic of 278 local plans that covers the entire state.
- The state does not zone land; again, local governments do that.
- The state does not administer common planning permits; cities and counties issue the permits for variances, conditional uses, subdivisions, land partitions, etc.

## *State Agencies Associated With Planning*

Although many state agencies are involved in the planning process, three organizations are central to it: LCDC, DLCD, and LUBA.

LCDC is the *Land Conservation and Development Commission*. This seven-person commission was created by Senate Bill 100. It began operating in January, 1974. Its members are appointed by the governor and confirmed by the state senate. They receive no salary. LCDC typically holds two-day public meetings in Salem once a month. It is the policy-making body that sets the standards for Oregon's statewide planning program.

DLCD is the *Department of Land Conservation and Development*. It is the state agency that administers Oregon's statewide planning program and that provides professional support to the lay commission that oversees the program. (This combination of a lay commission supported by an administrative agency is common in Oregon; almost all of the state's main programs use it.)

DLCD is among the smallest of Oregon's state agencies: It has a central staff of 30-40 in Salem, and field representatives in five other cities. The address and phone number of the Salem office are

Department of Land Conservation and Development  
1175 Court Street N.E.  
Salem, OR 97310  
Phone: (503) 378-4926

LUBA is the *Land Use Board of Appeals*. It is essentially a state court that rules on matters involving land use. An appeal of a county's zone change, for example, would go to LUBA, then to the state Court of Appeals, and finally to the state's Supreme Court. LUBA was established in 1979. It originally made recommendations to LCDC, which then made the actual rulings. Since 1981, however, LUBA has been an independent tribunal. LUBA is a three-member panel. Its office is in Salem at this address:

Land Use Board of Appeals  
100 High Street, Suite 220  
Salem, OR 97310  
Phone: (503) 373-1265

## *The Statewide Planning Goals*

Oregon's standards for land-use planning are set forth in 19 statements formally called the Statewide Planning Goals, but often referred to simply as "the goals." Although the word "goal" sometimes connotes vague statements of what may be done someday, that connotation does not apply here: Oregon's Statewide Planning Goals are quite detailed, they are mandatory, and they have the force of law.



The first fourteen goals were adopted by the Land Conservation and Development Commission on December 27, 1974. Goal 15, for the Willamette River Greenway, was adopted by LCDC on December 6, 1975. The final four goals, for coastal resources, were adopted on December 18, 1976. All 19 goals remained unchanged during the early years of the program. Revisions to eight of them were made in 1983 and 1984.

A complete set of the statewide goals can be obtained (at no charge) from the Department of Land Conservation and Development in Salem or at DLCD field offices in Portland, LaGrande, Bend, Medford, or Newport. A brief outline of the goals follows this summary.

### *Statutes, Administrative Rules, and Local Ordinances*

Several chapters of state laws (formally known as Oregon Revised Statutes and abbreviated "ORS") deal with planning and land use. The four most significant chapters are these:

- ORS Chapter 92, "Subdivisions and Partitions"
- ORS Chapter 197, "Comprehensive Land Use Planning Coordination"
- ORS Chapter 215, "County Planning; Zoning; Housing Codes"
- ORS Chapter 227, "City Planning and Zoning"

Official statements to clarify the statutes or express policies relating to state laws are called *Oregon Administrative Rules* (OAR's, or just "rules"). The administrative rules most applicable to land-use planning appear in OAR Chapter 660. Within that chapter are 20 divisions, each of which deals with a special topic, such as the incorporation of cities or the classification of estuaries.

At the local level, land use is governed by a city or county comprehensive plan and some regulations associated with it. Typically, a plan is adopted as an ordinance and its policies are mandatory; a zoning ordinance and a land-division ordinance specify how the plan's general policies are to be accomplished. For example, a county plan might contain a definition of agricultural land, an inventory of where such land occurs, and a policy to preserve that land. The zoning ordinance would establish farm use zoning for that land; the land-division ordinance would specify the procedures for dividing it.

### *State Approval of Local Plans (Acknowledgment)*

Each city and county is required to submit its comprehensive plan and associated land-use regulations to the state. The submittal goes to DLCD, which reviews it and schedules it for a hearing before the Land Conservation and Development Commission (LCDC). DLCD writes a report and makes recommendations. Other interested parties (state agencies, interest groups, private citizens) also have an opportunity to review the plan and report for or against its approval.

LCDC receives all of the written reports and comments and then reviews the city's or county's request for approval in a public hearing. DLCD, other agencies and organizations, and private citizens all have an opportunity to comment orally. The commission then may deny, continue, or approve the local government's request.

The formal term for LCDC's approval of a city's or county's plan is "acknowledgment of compliance with the Statewide Planning Goals." Most people familiar with the program just use the word "acknowledgment" to describe LCDC's approval.

The acknowledgment process took longer than was originally expected. The amount of work to develop

acknowledgeable plans was underestimated. It took LCDC and DLCD longer to establish a review process and longer to do the reviews than had been hoped. Some local governments were slow to comply because they opposed the program. And a series of ballot measures challenging statewide planning slowed the process. Still, by the end of the initial decade of the program, all local governments had adopted plans and zoning, all had submitted their plans to LCDC, all had been reviewed one or more times, and more than 90 percent had been acknowledged.

### *The Incentives for Acknowledgment*

Two main forces compel cities and counties to get their plans acknowledged by LCDC. The first is simply that state law (ORS 197.175) requires it. The second is that cities and counties whose plans have not been acknowledged must review all land-use decisions not only against their own local policies and ordinances but also against all applicable statewide goals. After acknowledgment, local governments need only to consider their own standards: the statewide goals are considered to be embodied in the approved local plans. That relief from applying the statewide planning goals to each and every decision is not merely an administrative convenience. It greatly aids the predictability of the local plan, shortens the reports and findings necessary to justify land-use decisions, and lessens the possibilities for appeals and litigation.

### *Sanctions for Failing to Get Acknowledged*

LCDC has three measures it can use to ensure that local governments comply with state planning requirements: enforcement orders, court orders, and revenue withholding.

An enforcement order is a special temporary injunction issued by LCDC to limit some or most forms of development. It can be issued for an entire county or city or for some special area within. LCDC could, for example, adopt an enforcement order that would stop all land divisions and residential development on a county's farm land. LCDC has used the enforcement order relatively sparingly—against 14 jurisdictions in all.

The court order is a civil remedy available to all agencies to compel compliance with the law. LCDC has used this sanction only once.

The third measure, revenue withholding, was given to LCDC in 1983. Oregon collects taxes on certain commodities, e.g., gasoline, cigarettes, and liquor. It then shares the revenues from those taxes with local governments. The Legislature directed LCDC to withhold such revenues from cities and counties who were not making satisfactory progress toward acknowledgment. The amount to be withheld would equal that which the city or county had received in state planning grants—a few hundred dollars for the smallest jurisdictions, hundreds of thousands of dollars for the largest. LCDC has adopted withholding orders against several counties. Each order sets a target date. If a county fails to submit acceptably revised plans before the specified deadlines, the revenue withholding begins immediately.

### *Coordination*

An important part of Oregon's planning program is its emphasis on coordinated planning. Each county and the cities within it are required to adopt plans that are consistent with each other as well as with the statewide goals. Counties, or in some cases regional associations of governments, have the primary responsibility for such coordination.

The programs of state agencies also are required to be consistent with statewide planning goals and with



acknowledged local comprehensive plans. When state agency programs are reviewed by LCDC and found to be consistent with the goals, they are said to be *certified*.

### *After Acknowledgment*

Two mechanisms ensure that local plans do not go out of compliance with statewide goals after those plans have been acknowledged by LCDC. In the *plan amendment process*, proposals to amend an acknowledged local plan or land-use ordinance must be submitted to DLCD before they are adopted. If DLCD finds that such a proposal does not comply with the statewide goals, it so advises the local government. If that government adopts the proposal in spite of the negative recommendation, DLCD (or other interested parties with standing) may appeal the action to LUBA.

In the *periodic review process*, each local government must review its acknowledged plan and land-use ordinances every three to five years. It must give to DLCD findings that the plan and ordinances remain in compliance with the goals, or it must submit the amendments necessary to restore the plan and ordinances to compliance. LCDC reviews DLCD's report on the matter and hears from interested parties and agencies, much as it did for acknowledgment review. Periodic review, however, is expected to be a much briefer and less complicated process than were the original acknowledgment reviews.

### *Grants*

The State of Oregon gives grants to cities and counties to help them develop land-use plans consistent with statewide goals. The bulk of the money thus far has been in the form of "planning assistance grants," which are used to pay the salaries of some local planners, to cover costs of printing and distributing plans, etc. "Post-acknowledgment grants" help cities and counties revise their plans to satisfy new goal or statutory requirements. "Implementation grants" are given to coastal jurisdictions to help them carry out the requirements of Oregon's coastal management program, which is directed by LCDC.

### *The Coastal Management Program*

The Land Conservation and Development Commission has administered the Oregon coastal management program (OCMP) since 1975. The federal government officially recognized and approved that program in 1977, thus authorizing the state to receive federal grants for coastal-zone management. Since then, Oregon has received more than \$11 million in grants to operate the program and to aid local governments through subgrants and technical assistance. One very important feature of this local-state-federal partnership is that once the federal government has approved the coastal program and local governments have made their plans consistent with it, federal agencies must conduct their programs in accordance with the approved local plans.

Oregon's coastal program is based on the state's planning goals, particularly the four adopted by LCDC in December, 1976, and known as the coastal goals: Goal 16, *Estuarine Resources*; Goal 17, *Coastal Shorelands*; Goal 18, *Beaches and Dunes*; Goal 19, *Ocean Resources*. The program also encompasses several other state laws and state agency programs, including the Fill and Removal Act and the Beach Improvement Program.

### *Citizen Involvement*

From its start, Oregon's land-planning program has strongly emphasized the need to involve the state's citizens in all phases of the planning process. Toward that end, the 1973 *Land Use Act* called for the creation of a

standing committee to advise LCDC on matters of citizen involvement and to encourage active citizen participation throughout the state.

The eight-member Citizen Involvement Advisory Committee (CIAC) meets prior to each LCDC meeting and prepares a report on matters of citizen involvement that are to appear on LCDC's next agenda. CIAC reviews and makes recommendations on proposals to amend local citizen involvement programs and on issues concerning compliance with Statewide Planning Goal 1, Citizen Involvement.

### *The Legislature's Link with LCDC*

Senate Bill 100 established a standing committee to monitor the statewide planning program. Known as the Joint Legislative Committee on Land Use (JLCLU), this body is composed of four members from the House of Representatives (appointed by the Speaker of the House) and three senators (appointed by the Senate's President). JLCLU studies various aspects of the planning program, advises DLCD and the Legislature of its findings, and makes recommendations to the Legislature on matters involving planning.

## **SUMMARY OF OREGON'S 19 STATEWIDE PLANNING GOALS**

**GOAL 1: Citizen Involvement** — The main aim of this goal is for cities and counties to develop programs that will "insure the opportunity for citizens to be involved in all phases of the planning process." Such programs must be approved by LCDC and by the state's Citizen Involvement Advisory Committee (CIAC). The goal specifies six "components" for such programs and requires each local government to establish a committee to monitor and encourage citizen involvement.

**GOAL 2: Land Use Planning** — This goal outlines the basic procedures of Oregon's statewide planning program. It establishes that comprehensive plans shall be the basis for making land-use decisions and that suitable "implementation ordinances" (e.g., zoning and land-division ordinances) to put the plans' policies into effect must be adopted. It requires that comprehensive plans be based on a collection of "factual information" (variously known as the factual base, inventory, background document, or supporting document); that plans and their implementing ordinances be coordinated with those of other jurisdictions and agencies; that plans be reviewed and, if necessary, amended periodically.

One of the most important elements in Goal 2 is the set of standards it provides for taking *exceptions* to statewide goals. An exception is a "safety-valve" to be used (in accordance with several rigorous standards) when a statewide goal cannot or should not be applied to a particular area or situation. Related administrative rule provisions are found in OAR 660, Division 4, *Interpretations of Goal 2 Exception Process*.

**GOAL 3: Agricultural Lands** — This very precise goal defines "agricultural land" and requires all jurisdictions to inventory such lands and then "preserve and maintain" them through appropriate policies and zoning. The determination of what constitutes appropriate zoning is not left to chance: a complementary statute (ORS Chapter 215) specifies what is and is not permissible in the required *exclusive farm use (EFU) zone*. Related administrative rule provisions are found in OAR 660, Division 5, *Agricultural Lands*.



**GOAL 4: Forest Lands** — As with Goal 3, the forest lands goal defines the type of land to be addressed, and it requires each jurisdiction to inventory such land and adopt policies and ordinances that will "conserve forest lands for forest uses." The forest lands goal is unlike Goal 3 in that it has no complementary statutes to clarify or embellish the general language of Goal 4. Administrative rules relating to Goal 4 are set forth in OAR 660, Division 6, *Goal 4 Forest Lands*.

**GOAL 5: Open Spaces, Scenic and Historic Areas, and Natural Resources** — As its name suggests, this goal encompasses several different types of resources—12 in all. Wildlife habitats, mineral resources, wetlands and waterways are among several types of resource not reflected in the goal's title. Goal 5 is not a direct conservation goal that simply requires each jurisdiction to protect all of the specified resources. Rather, the goal establishes a process through which resources must be inventoried and evaluated. If a particular resource or site is found to have significant value, the local government must weigh three alternatives: preserving the resource, allowing more important uses that would destroy the resource, or establishing some balance between the first two approaches. On the basis of that evaluation, the local government then must choose the appropriate alternative and adopt a combination of policies and ordinance provisions that will effect that choice. Administrative rules relating to Goal 5 are found in OAR 660, Division 16.

**GOAL 6: Air, Water and Land Resources Quality** — This goal requires that local comprehensive plans and their associated implementing measures be consistent with state and federal regulations on matters such as groundwater pollution.

**GOAL 7: Areas Subject to Natural Disasters and Hazards** — Goal 7 deals with development in places subject to natural hazards such as floods or landslides. The goal does not *prohibit* development in such places; it requires that jurisdictions apply "appropriate safeguards" when planning for development there. Floodplain zoning in accordance with federal standards is an example of such a safeguard.

**GOAL 8: Recreation Needs** — The main thrust of Goal 8 is that each community must evaluate its areas and facilities for recreation and develop plans to deal with the projected demand for them. The community must consider not only local demands but also the needs of visitors. An important special section of Goal 8 established by amendments in 1984 sets forth standards for destination resorts.

**GOAL 9: Economy of the State** — This goal generally calls for diversification and improvement of the economy. Among the goal's most important provisions are those that require inventorying and planning of areas suitable for "increased economic growth and activity." Each community must inventory its stock of buildable commercial and industrial lands, project future need for such lands, and plan and zone adequate areas to meet the projected needs.

**GOAL 10: Housing** — The housing goal requires that each community plan for and accommodate a variety of housing types (single-family, multifamily, and manufactured). Each city must inventory its buildable residential lands, project future needs for such lands, and plan and zone to meet those needs. The goal is reinforced by statutory provisions (ORS 197.295-197.313) which prohibit local plans from discriminating against needed housing types.

**GOAL 11: Public Facilities and Services** — This goal generally calls for efficient planning of services such as sewers, water, law enforcement, and fire protection. The basic aim of the goal is that public services and facilities should be planned in accordance with a community's projected needs and capacities. Related administrative rules are set forth in OAR 660, Division 11, *Public Facilities Planning*.

**GOAL 12: Transportation** — The state's overall goal is "to provide... a safe, convenient and economic transportation system." An area of special concern within Goal 12 is that communities address the needs of the "transportation disadvantaged."

**GOAL 13: Energy** — Goal 13 declares that "land and uses developed on the land shall be managed and controlled so as to maximize the conservation of all forms of energy, based upon sound economic principles."

**GOAL 14: Urbanization** — This goal requires all cities to estimate their future growth and the resulting need for land and then plan and zone accordingly. It calls for each city to establish an "urban growth boundary" (UGB) to "identify and separate urbanizable land from rural land." Cities must work with the affected counties to establish those boundaries. Goal 14 specifies seven "factors" that must be considered in drawing up a UGB. The goal also sets forth four criteria to be applied to the conversion of undeveloped land within the UGB to urban uses.

**GOAL 15: Willamette Greenway** — Goal 15 sets forth the procedures for administering the 300 miles of greenway that protects the Willamette River. Related standards are found in OAR 660, Division 20, *Willamette River Greenway Plan*.

**GOAL 16: Estuarine Resources** — This coastal goal calls for the classification of Oregon's 22 major estuaries into four categories: natural, conservation, shallow-draft development, and deep-draft development. It then describes the types of land uses and activities that are permissible in those four types of "management units." The classification of estuaries is found in OAR 660, Division 17, *Classifying Oregon Estuaries*.

**GOAL 17: Coastal Shorelands** — The shorelands goal defines a planning area that is, with a few variations, bounded by the ocean beaches on the west and the coast highway (State Route 101) on the east. The goal specifies how certain types of land and resources within the planning area are to be managed: major marshes, for example, are to be protected. Sites best suited for unique coastal land uses (port facilities, for example) are reserved for "water-dependent" or "water-related" uses.

**GOAL 18: Beaches and Dunes** — This goal sets planning standards for development on various types of dunes. Residential development is prohibited, for example, on beaches and active foredunes, but other types of development may be permitted if they meet applicable criteria. The goal also deals with groundwater drawdown in dunal aquifers, dune grading, and the breaching of foredunes.

**GOAL 19: Ocean Resources** — The last statewide planning goal aims "to conserve the long-term values, benefits, and natural resources of the nearshore ocean and the continental shelf." It deals with matters such as the dumping of dredge spoils and discharging of waste products into the open sea. Its primary effects are on state agencies rather than cities and counties.



# WaterWatch

O F O R E G O N

By FAX 378-8130 and Regular Mail

June 30, 1993

Oregon Water Resources Department  
Water Rights Section  
3850 Portland Road NE  
Salem, Oregon 97310

Re: Objection to Technical Report for:  
G-12905, Eagle Ridge Development Corp., Group Domestic, Deschutes

WaterWatch submits the following objections pursuant to OAR 690-11-170:

◆ **The Technical Report is Defective.**

The technical report fails to contain many of the elements and evaluations required in OAR 690-11-160(1). The following are specific areas of deficiency:

- The report fails to assess whether the proposed use is restricted by statute. OAR 690-11-160(1)(b).
- The report fails to assess the proposed use with respect to conditions on other permits from the same source or the same type of use. OAR 690-11-160(1)(c). While the CONDITIONS section does mention that all previously imposed conditions are included, it does not indicate the specific conditions. We suggest that the already imposed conditions are either listed separately under a specific heading or that asterisks are placed next to all the conditions listed which have been previously imposed.
- The report fails to assess the use with respect to all applicable administrative rules. OAR 690-11-160. While the report does appear to include an assessment of the use pursuant to Division 9 rules, it does not assess the use with respect to the applicable basin plan.
- The report fails to evaluate potential conflicts with existing rights. OAR 690-11-160(1)(e). The information outlined in the section entitled CONFLICTS WITH OTHER WATER RIGHTS does not meet this requirement. The scope of the information is narrowly focused on other rights from the same point of



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diversion and for lands described in the application. The rules are not that limited. The technical report must evaluate the potential for conflict with existing rights -- rights which are using the same source of water and rights from other sources that may be affected by the proposed withdrawals (such as surface water rights that may be affected by groundwater pumping).

- The report provides conclusions rather than evaluations of water availability. OAR 690-11-160(1)(f). The report concludes that there is no potential to cause substantial interference with surface waters and that water is likely to be available. No evaluation is provided in the report, although it appears that the referenced "Groundwater/Hydrology Section Report" contains that information. To fulfill the requirements of the rules, and to meet the intent behind the rules, this evaluation should be included by either being inserted in the text of the report or as an attachment to the report.
- The report does not provide an evaluation of whether the amount requested is necessary to meet the proposed use. OAR 690-11-160(1)(g).
- Finally, there is no evaluation of land use compatibility. OAR 690-11-160(1)(h).

♦ **The Use As Proposed is Not in the Public Interest.**

The proposed use fails to pass the public interest considerations in ORS 537.620 and the policies of the Groundwater Act ORS 537.525. *See also*, OAR 690-11-195(3)(d), (4)(a), (4)(b), (4)(c)(A), (4)(d), (4)(e), (4)(f).

1. The proposed use depletes flows and adversely affects the water quality needed to meet existing water rights for surface waters and for numerous public instream uses of the Deschutes River.

The 1984 Deschutes Basin Plan states:

• **General Findings:**

Flows are not sufficient on many streams during the summer months of average water years to supply existing and future demands. Finding 2.

Simultaneous use of a major portion of existing consumptive rights results in flows at or near the zero level on some streams during the summer months. Finding 3.



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River related recreation is important to the economy of the upper Deschutes Basin. Finding 25.

The support of resident and stocked fish is essential to river related recreation. Finding 26.

Recommended base flows suggested by fisheries agencies are substantially higher in many locations than flow levels that can be obtained during average water years under current stream regimen and existing water rights and priorities. Finding 27.

Establishment of restrictions on further appropriations would prevent an increase in depletion potential on some streams which would aid in maintaining minimum flows. Finding 33.

Where streams are seasonally overappropriated, the establishment of restrictive actions would have no immediate physical effect until additional flows become available. Finding 34.

• Middle Deschutes findings include General Findings 3 & 27 and:

There is inadequate streamflow for fishery requirements. Finding 20.

• Lower Deschutes findings include General Findings #3 and:

Many streams do not provide enough flow for nonconsumptive public uses at present in periods of relatively low as well as critical flow. Finding 3

In April, 1986, Deschutes County and the City of Bend conducted a "River Study". That study included extensive goals and policies. See River Study p. 13-2 through 6. Among those policies are: (1) Increase Deschutes River stream flows from Wickiup Reservoir on down; (2) Maintain stream flows in the little Deschutes River and its tributaries that will provide for irrigation, fisheries, wildlife and recreation needs; and (3) Increase stream flows below the north canal dam, below the irrigation diversion in Tumalo creek, and below the main irrigation diversions in Squaw Creek. *Id.* Thus, the county has an interest in insuring that destination resorts not be located in areas that may provide critical groundwater flow for the identified rivers and streams.

The Deschutes River system supports a variety of fish life including rainbow, brown and cutthroat trout. The Deschutes River supports a major Oregon sports fishery. Low flows during summer months impair fish survival by, among other things, raising water



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temperatures, decreasing aquatic habitat and trout rearing areas and promoting excessive growth of algae. See Mathisen, *Upper Deschutes River Water Resource Review*, pgs. 10-11. Low flows in the winter adversely effect fish habitat by, among other things, exposing spawning gravel, reducing feeding and rearing areas in the river, and increasing fish deaths due to severe ice conditions on the river. *Id.*

Several segments of the Deschutes River have received state scenic waterway designation. Several segments of the Deschutes River have also been federally designated under the Federal Wild and Scenic Rivers Act. Currently there are several instream water rights and pending instream water right applications pending for the Deschutes River mainstem and tributaries. Application #070695, filed in September of 1990, requests protection of Deschutes River flows needed for habitat for bull, rainbow and brown trout, kokanee and coho salmon. The instream water right certificates and pending applications serve the public interest by protecting flows needed for fish, pollution abatement and recreation in the Deschutes River. As a tributary to the Columbia River, the Deschutes River contribute flows for listed threatened and endangered fish populations in the Columbia River.

In addition to the water quantity problems, the Deschutes River mainstem suffers from water quality problems. Oregon statutes require that the WRD's actions ensure the protection of the water quality in Oregon's river and groundwater aquifers. See, ORS 468B.015(2) & (4), ORS 468B.020(1), ORS 468B.155, OAR 690-410-010(1). One segment of the river is listed in the Department of Environmental Quality's 1992 *Water Quality Status Assessment Report*, 305(b) Report as water quality limited. This segment of the river is unable to support the designated beneficial use of aquatic life. Several other segments can only partially support aquatic life. DEQ has also identified water withdrawals as a cause of Deschutes River quality problems. Further depletion of surface water flow will only exacerbate these existing water quality problems. In addition, the existing resort facility has, in the past, spilled grease and other substances into the Deschutes River system. The proposed expansions increase the likelihood of those kinds of discharges. The proposed expansion will also inundate natural drainages with runoff from constant irrigation of proposed lawns, gardens, golf courses and grounds. In addition, the sewage discharge from the expansion, whether by septic tank or a sewage treatment plant, may add to existing water quality problems.

The Department has determined that a hydraulic connection exists between surface and groundwater in the Deschutes River system. See Agenda Item J-3, July 17, 1992, page 2. A 1930 Department of Interior Report by Harold Stearns states that the Deschutes River is primarily fed by springs. Stearns, pg. 25. The report describes a groundwater resource that is highly permeable in parts and drains into the Deschutes canyon, providing over



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1,000,000 acre feet per year of water and over 1,500 cfs in the middle Deschutes Basin. Stearns, pg. 191, 208.

A 1955 Water Resources Committee report to the Oregon Legislature confirms Stearns' findings and states that the groundwater supply makes the Deschutes' flow one of the most consistent in the nation. Water Resources Committee Report, pg. 18. Furthermore, an even more recent Water Resources Investigation Report by the USGS confirms the finding of important discharge into the surface waters in the area. Report 84-4095, pg. 13-15. Thus, groundwater in this area is vital to surface water flows, is directly connected to the surface waters, and further permits to use groundwater will deplete already overallocated surface waters in the basin.

2. The failure to require water use measurement and reporting violate Oregon's policies and goals which call for the control of Oregon's waters. Thus the proposed use will impair and be detrimental to the public's interest.

When determining whether a proposed use is in the public interest the Commission is required to consider the "control of the waters of this state for all beneficial purposes" and the water resources policies in the statute. ORS 537.170(5)(c) and 537.170(5)(g). The Oregon Legislature has recognized that in order to maintain and increase the economic and general welfare of the people of Oregon the State must ensure "the proper utilization and control of the water resources of this state, and such use and control is therefore a matter of greatest concern and highest priority." ORS 536.220(1). The Legislature has also found that it is "in the interest of the public welfare" that activities be "designed to encourage, promote and secure the . . . control of" Oregon's water resources. ORS 536.220(2)(a).

The Groundwater Act of 1955 declares and finds that the right to control of Oregon's water "from all sources of water supply belongs to the public . . ." ORS 537.525. The Act sets forth policies to ensure the "preservation of the public welfare, safety and health." *Id.* These policies call for the control of the groundwater resource in order to prevent depletion, to determine and maintain reasonably stable water levels, and to determine the characteristics of groundwater statewide. ORS 537.525. These statutory policies are reflected in the Commission's Groundwater Management Policy. OAR 690-410-010. When approving groundwater applications the State can impose conditions or limitations as needed to protect the "public welfare, safety and health." ORS 537.620(5).

Water use measurement and reporting requirements are essential if the State is to achieve these statutory policies and goals. These requirements generate critical information on actual water use and the effect of the use on the water resource. It also gives the



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Department information vital to management and enforcement efforts, it provides information necessary to "clean up" the Department's water right records and helps with future water use planning. See Testimony of Martha O. Pagel, Before the Senate Joint Committee on Water Policy, 2/2/93, pgs. 1-5.

Continuous information about groundwater use and groundwater characteristics is critical for management of the groundwater resource in the Deschutes Basin. As Director Pagel stated on page 2 of her September 14, 1992 letter to the Chairpersons of Crook, Deschutes and Jefferson County Commissions:

The groundwater information base will never be perfect. However, in many areas it must improve substantially before the Commission can both issue additional permits and meet its obligation to protect the groundwater resource. . . . If the demands of growing communities are to be met in a timely manner, it is imperative that the state, local governments, citizens and the development community work together to generate more and better groundwater information."

Those using the resource should provide the needed information. The Department should require the permittee to measure and report the amount and place of water use under the proposed permit. This information is critical if the Department is to carry out its duty to protect and manage the resource. As a policy matter, WaterWatch believes that water use measurement and reporting should be required of every new permit issued in Oregon.

3. The proposed use is likely to impair the public interest because it will interfere with surface waters in the Basin.

The Department has determined that the groundwater resource is hydraulically connected to surface waters in the area. However, it has failed to determine the extent of the connection and the short and long term impacts of the connection on surface waters in the basin. The applicant has failed to meet its burden of proof because it has failed to show long term impacts of the pumping will not harm the resource.<sup>1</sup> Oregon's ground water statute

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<sup>1</sup>The County's independent consulting Hydrologist (J. Gonthier) indicates that more data and analysis should be required of Eagle Creek in the land use proceedings. In addition, in the Appendix to his 10/92 critique Gonthier outlines three page of data gaps, misstatements and concerns about the report on which Eagle Crest primarily relies. Hydrologist Gonthier's "Summary of Conclusions" notes that although Eagle Crest has addressed some issues, they have "fail[ed] to include an evaluation of the size of the impact area as a consequence of long-term pumping."



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and the implementing rules require the Department to look at both short and long term impacts of groundwater use and to insure that the use will not interfere with surface waters. ORS 537.620(3), OAR 690-9, OAR 690-11-195(4)(a). This determination is critical given the existing overallocation of surface waters, the water quality problems and the public interest in maintaining instream flows necessary to support public uses of the Deschutes and Columbia Rivers.

The Department and Commission have recognized in the past the increasing pressure to develop groundwater in the Basin and expressed concern over the ability of the resource to meet new demands. Until the required level of scientific certainty needed for decision making is determined and the information developed, this permit should not be issued.

In addition, as stated in WaterWatch's October, 1992 Petition for Withdrawal or Temporary Emergency Rulemaking (previously filed with the Commission), in order to protect the public's interest in the Columbia River system (of which the Deschutes River is tributary), and the threatened and endangered fish species which rely on this resource, this and other permit for water from the Columbia River Basin should not be considered until sufficient instream flows are determined and guaranteed throughout the basin. Until these flows are determined and protected, the Department has no way to ensure that new uses proposed in the system will not harm the public interest. For the reasons outlined in the objection and in WaterWatch's October Petition (hereby incorporated as part of this objection) the proposed use will impair and be detrimental to the public interest in the resource.

Furthermore, the proposed conditions for this permit do nothing to protect surface waters from interference. Proposed condition #13 requires a pump test prior to receiving a certificate. A pump test provides information relating to the extent of the ground water surface water connection and the aquifer characteristics. This test provides information needed to make a public interest determination and should be obtained prior to a final public interest determination. If, after this information is obtained and proves the ground water support the proposed use, and the use is in the public interest, then condition #13 requiring periodic pump tests during the life of the permit and certificate would be appropriate. The condition should not, however, limit the Director's discretion as to when she can require pump tests. We suggest language that would require testing annually or more frequently as deemed needed by the Director.

Proposed condition #6 does not protect the ground water or surface water resource. The condition requires the permit holder to stop use if the well "displays a total static water-level decline of 25 or more feet." While we support the concept that a condition should require measurement and reporting of static water levels, as currently proposed, the conditions will not protect the resource. The "25 foot declines" is a standard condition and



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is not specifically geared to the proposed ground water source. For example, this condition will not protect the resource if the aquifer depth is 20 feet. If this is the case, this condition allows the permittee to pump the aquifer dry. The aquifer depth must be determined prior to the public interest determination in order to determine the level of "tolerable" static water level decline. If the aquifer depth is unknown at this time - then applicant should conduct tests to determine the aquifer depth - prior the public interest determination. Condition #6 should require the permittee to stop use if the well displays declines below the determined "tolerable" static level.

In addition to not protecting the ground water resource, proposed condition #6 does not protect the nearby surface waters from interference by this proposed use. This condition only addresses the ability of the aquifer to accommodate the proposed use. It does nothing to monitor and if necessary shut off or curtail use if the pumping interferes with surface waters.

4. The proposed use violates Oregon's statewide policies.

Oregon's Groundwater Management Policy requires that "(i)nterference between groundwater uses and competing groundwater and surface water uses . . . be prevented and/or controlled to protect the water resource and existing rights." OAR 690-410-010(1). The Policy also requires the State to manage groundwater and surface water conjunctively in order to protect the public's interest in the water resource and existing rights. OAR 690-410-010(2)(a). In addition, Oregon's Statewide Water Allocation Policy requires that groundwater use occur within the capacity of the resource and requires the State to protect Oregon's waters from overallocation by new uses of groundwater. OAR 690-410-070(1).

Allowing this proposed use to go forward violates all these policies. The Department's failure to manage the ground and surface waters conjunctively in the Deschutes River basin will exacerbate existing overallocation problems, water quality problems, and will further impair existing surface water rights. It is bad public policy to continue issuing groundwater rights in the face of increasing doubts as to whether increased groundwater use is sustainable.

5. This application was processed out of order.

The tentative priority date for this application is 5/4/92. There are currently several pending instream water right applications with tentative priority dates senior to this application. The Commission, last summer, directed the Department to process applications in the order received. This application has the potential to decrease flows needed to meet senior instream water rights and senior pending instream water right applications. Thus,



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these applications should not move forward until the instream water right applications are processed.

6. The proposed use is not compatible with local land use plans and is contrary to the Department's own rules.

The applicant has not yet received land use approval for the proposed development. There is no valid Goal 8 Destination Resort citing map for Deschutes County. Thus, this applicant does not even have the basis to even apply for an expansion permit. Even if a Goal 8 map were in place, the applicant would still have to go through an extensive land use permitting process. The statement in proposed condition #12 states that "Pre-applications discussions between Deschutes County officials and the applicant suggest that land use approval will be obtained"<sup>2</sup> does not change the fact that there is no land use approval for the land use that will be served by this proposed use.

OAR 690-11-030(7) requires that "prior to the completion of the technical review" applications must include the required land use information. The application does not include the required land use information. OAR 690-11-160 specifies that the technical review contain an evaluation of the compatibility information received. Thus, the technical review cannot be completed and the application should not move forward.

The rules require the Department to conclude that the mandatory informational requirement has been met if the information has not been received. The rule itself is arbitrary, capricious and contrary to law and should be declared invalid. The rule is also contrary to OAR 690-05-035(4)(a) which requires the Department to "(r)equire land use information be submitted with applications." The information "shall be sufficient to assess compatibility as specified on forms contained in the Department's Land Use Planning Guide." Id. Thus, OAR 690-11-030(7) which requires that the land use information requirement is satisfied even if no information is received means that the Department will not receive "information sufficient to assess compatibility."

Regardless of the outcome of this "informational requirement" dance, OAR 690-11-030(7) states that if the land use information is not received or post marked "before the end of the 30-day comment period" the Department may presume that the proposed use is compatible with land use plans and regulations. OAR 690-11-030(7). This presumption can not be applied in this case. Both the applicant and the County have informed WRD that

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<sup>2</sup> This statement is not a "condition" of water use and should be deleted from the "Proposed Conditions" section.



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there is no land use approval for this proposed development. Clearly a presumption of compatibility cannot be made for this proposed water use.

Finally, OAR 690-050-035(4)(b) allows approval of proposed uses if the proposed use meets the requirements of state water law (including the permit application requirements referenced above) and the land use is "allowed outright or does not require discretionary land use approvals" or the applicant has already received the necessary land use approvals. The land use served by this proposed use is not allowed outright, the discretionary land use approvals have not been given and the use as proposed does not meet the substantive and procedural requirements of Oregon Water Law. Thus, the proposed use cannot be approved.

Once the Department has followed the substantive and procedural requirements of Oregon water law and if the Department finds the proposed use is in the public interest, the Department may withhold approval until the applicant has received all land use approvals or condition the permit if land use approvals are "pending." If the use were to be found to be in the public interest and all the requirements of Oregon water law are met, the WRD should withhold final action on this application until final land use approval is achieved. The proposed expansion is extremely controversial and may not receive land use approval. In addition, given the WRD's current lack of knowledge relating to the extent of interference with surface waters and its ongoing study of the hydrology of the Deschutes River basin, it is in the public interest to withhold permit issuance.

7. Proposed condition #14 does not protect the public interest because it allows the transfer of amounts above actual permit requirements.

This condition states that in the event of a request to transfer the point of diversion, add a point of diversion, or to change the diversion facility, the amount of water allowed in the transfer, along with "any other right, shall not exceed the capacity of the facility at the time of perfection of this right." This proposed condition could, it appears, be read to allow that upon transfer, the quantity of use authorized pursuant to this permit could be expanded beyond the amount specified on the right. In other words, the capacity of the facility could be greater than the amount of actual use that took place under the terms of the permit. This is a violation of Oregon state water law. ORS 540.505 et. sec.



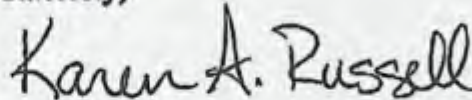
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◆ Conclusion

We are open to discussion with the Department and the applicant on all of the issues raised in this objection letter. We are committed to working with the Department to cure the problems with the contents of this and other technical reports.

Sincerely,

A handwritten signature in cursive script that reads "Karen A. Russell".

Karen A. Russell  
Legal Affairs Coordinator



STATE OF OREGON  
WATER RESOURCES DEPARTMENT

INTEROFFICE MEMO *ARLU Dec*

EXHIBIT "A"

TO: Steve Brown

FROM: Donn Miller *DM*

SUBJECT: Well Relocation Request Under Permit G-11313 (Appl G-12429)

DATE: 10/17/91

*G-12905*  
*6-29-93*  
*(2 pages)*

Yesterday we spoke with Tom Walker and Bill Lyche concerning relocation of wells as cited in the permit to Eagle Ridge Development Corporation. Tom's fax letter of 10/17/91 formally requests the changes. The permitted locations are proving to be too thin in there occurrence of Deschutes Formation which is the intended aquifer. They would like to drill closer to the Deschutes River where they are advised, and I believe correctly so, that the aquifer thickness will increase.

The proposal seeks to relocate 1 to 3 wells under the permit to locations on the property which are no closer than 2000' from the Deschutes River. A revised well location for well #2 is in the file and dated 9/25/91. If the other two wells are relocated they would be no closer than 2000' from the Deschutes River.

My file memo of 4/25/91 discusses the fact that the local groundwater is below the level of the Deschutes River. This groundwater body appears to be in motion to the north, discharging to the river beginning in the area of Tethrow Bridge. In effect then, the relocation of the authorized well locations a few thousand feet closer to the river is of little consequence to the river.

From available information, I conclude that the relocation of wells will result in the diversion of water from the originally intended source aquifer. Further, the hydraulic nature of the aquifer allows for very high specific capacities which would not serve to place a burden of well interference on neighboring wells. In short, wells at the requested locations will probably not produce a significantly different effect than wells at the authorized locations had more aquifer been available. New well locations should attempt to maximize the distant to existing users.

Notes:

→ I originally reviewed this application on 4/25/91. In that review I called out specific resouces management conditions for inclusion in a permit. I was asked to review the application again in July using the new evaluation form for standardization. I failed to include the resource managment conditions on that form, possibly due to my own confusion in using the form. I'm sure that I didn't change my mind on this, particularly for such a large quantity of water. In any case, the permit was issued without the conditions. This is unfortunate but that's the way it is. I guess that I goofed. Even at this late date, it would be nice to get self-reporting and resource managment conditions in the permit.



STATE OF OREGON

COUNTY OF DESCHUTES

PERMIT TO APPROPRIATE THE PUBLIC WATERS

THIS PERMIT IS HEREBY ISSUED TO

EAGLE RIDGE DEVELOPMENT CORPORATION  
P.O. BOX 1215  
REDMOND, OREGON 97756

to use the waters of THREE WELLS in the DESCHUTES RIVER BASIN for IRRIGATION OF 317.22 ACRES AND COMMERCIAL USE (GOLF COURSE).

This permit is issued approving Application G-12429. The date of priority is FEBRUARY 26, 1991. The use is limited to not more than 4.28 CUBIC FEET PER SECOND (CFS); BEING 3.97 CFS FOR IRRIGATION AND 0.31 CFS FOR COMMERCIAL USE, or its equivalent in case of rotation, measured at the wells.

The wells are located as follows:

WELL 1 - NE 1/4 NE 1/4, SECTION 22, T 15 S, R 12 W, W.M.; 350 FEET SOUTH AND 1170 FEET WEST FROM NE CORNER, SECTION 22;

WELL 2 - NW 1/4 SE 1/4, SECTION 15, T 15 S, R 12 W, W.M.; 840 FEET SOUTH AND 200 FEET EAST FROM C 1/4 CORNER, SECTION 15;

WELL 3 - SE 1/4 NE 1/4, SECTION 22, T 15 S, R 12 W, W.M.; 2300 FEET SOUTH AND 150 FEET WEST FROM NE CORNER, SECTION 22.

The amount of water used for irrigation under this right, together with the amount secured under any other right existing for the same lands, is limited to a diversion of ONE-EIGHTIETH of one cubic foot per second (or its equivalent) and 3.0 acre-feet for each acre irrigated. The use of water for irrigation may be made at any time that water can be put to beneficial use.

The use shall conform to such reasonable rotation system as may be ordered by the proper state officer.

A description of the proposed place of use under this permit is as follows:

|               |                                |
|---------------|--------------------------------|
| SW 1/4 NE 1/4 | 1.43 ACRES AND COMMERCIAL USE  |
| NW 1/4 NW 1/4 | 20.15 ACRES AND COMMERCIAL USE |
| SW 1/4 NW 1/4 | 17.24 ACRES AND COMMERCIAL USE |
| SE 1/4 NW 1/4 | 7.26 ACRES AND COMMERCIAL USE  |
| NE 1/4 SW 1/4 | 19.38 ACRES AND COMMERCIAL USE |
| NW 1/4 SW 1/4 | 23.32 ACRES AND COMMERCIAL USE |
| SW 1/4 SW 1/4 | 24.27 ACRES AND COMMERCIAL USE |
| SE 1/4 SW 1/4 | 13.08 ACRES AND COMMERCIAL USE |
| SECTION 14    |                                |

|               |                                |
|---------------|--------------------------------|
| SW 1/4 NE 1/4 | 11.87 ACRES AND COMMERCIAL USE |
| SE 1/4 NE 1/4 | 19.31 ACRES AND COMMERCIAL USE |
| NE 1/4 SE 1/4 | 20.07 ACRES AND COMMERCIAL USE |
| NW 1/4 SE 1/4 | 16.15 ACRES AND COMMERCIAL USE |
| SW 1/4 SE 1/4 | 14.56 ACRES AND COMMERCIAL USE |
| SE 1/4 SE 1/4 | 26.58 ACRES AND COMMERCIAL USE |
| SECTION 15    |                                |

|               |                                |
|---------------|--------------------------------|
| NE 1/4 NE 1/4 | 26.88 ACRES AND COMMERCIAL USE |
| NW 1/4 NE 1/4 | 23.36 ACRES AND COMMERCIAL USE |
| SE 1/4 NE 1/4 | 11.04 ACRES AND COMMERCIAL USE |
| SECTION 22    |                                |

|               |                                |
|---------------|--------------------------------|
| NE 1/4 NW 1/4 | COMMERCIAL USE                 |
| NW 1/4 NW 1/4 | 21.27 ACRES AND COMMERCIAL USE |
| SECTION 23    |                                |

TOWNSHIP 15 SOUTH, RANGE 12 EAST, W.M.



Endorsed so that to retain its priority it must be returned to the office of the Water Resources Department on or before

EXHIBIT "C" ARLU-DeG.  
G-12905  
6-29-93

Approved \_\_\_\_\_ total amount of water granted \_\_\_\_\_

DESCHUTES

G 12429 Application, Stream THREE WELLS IN THE DESCHUTES RIVER BASIN  
Permit, Applicant EAGLE RIDGE DEVELOPMENT CORPORATION  
of 15 SW COLORADO AVE BEND, OR. 97701  
Point of diversion...

|   |        |                             |             |
|---|--------|-----------------------------|-------------|
| 1 | NE 1/4 | NE 1/4, Section 22, T 15 S, | R 12 E, WM; |
| 2 | NW 1/4 | SE 1/4, Section 15, T 15 S, | R 12 E, WM; |
| 3 | SE 1/4 | NE 1/4, Section 22, T 15 S, | R 12 E, WM; |

Proposed use... YEAR AROUND IRRIGATION, RECREATION TO INCLUDE  
AESTHETIC VALUE AND GOLF HAZARDS AND DOMESTIC USE FOR 500 DWELLINGS  
TO INCLUDE IRRIGATION OF UP TO 0.5 ACRES FOR EACH DWELLING, \*\*\*  
Amount... 9.12 CUBIC FEET PER SECOND, BEING 3.04 CFS FROM EACH WELL  
Received on... 2/26/1991 At: 8:00 AM  
Returned to the applicant for correction completion \_\_\_\_\_

Endorsed so that to retain its priority it must be returned to the office of the Water Resources Department on or before \_\_\_\_\_

Approved \_\_\_\_\_ total amount of water granted \_\_\_\_\_





RECEIVED

SEP 20 1993

WATER RESOURCES DEPT.  
SALEM, OREGON

September 16, 1993

Mr. Steve Brown  
Oregon Water Resources Department  
3850 Portland Road, N.E.  
Salem, Oregon 97310

Re: Eagle Ridge Development Corporation  
Groundwater Appropriation Application  
OWRD File No. G-12905

Dear Steve:

Thank you for your assistance on our pending water right appropriation application for Eagle Crest. Recently, you inquired about the inclusion of the Cline Falls Oasis subdivision within our appropriation application. The Cline Falls Oasis is an independent and separate subdivision, but an adjacent neighbor to the proposed Eagle Crest development.

In a past neighborhood meeting with the residents of Cline Falls Oasis, Eagle Crest was asked to consider providing domestic water service to the subdivision. Many residents have individual or shared wells, and the residents were interested in an alternative to the well operation and maintenance obligations. Eagle Crest agreed to include the subdivision within water right appropriation applications to allow service, if it remains desirable in the future.

If domestic water service is provided to the Cline Falls Oasis subdivision, I would expect normal water distribution lines to be installed within the public rights-of-way. The official plat of the Cline Falls Oasis subdivision and Cline Falls Oasis number 2 subdivision states, "The streets as shown are hereby conveyed, set apart and dedicated to the public forever, without reservation or restriction whatsoever." I also contacted the Deschutes County Public Works Department to confirm that water lines could be installed within these public rights-of-way. Deschutes County will issue permits, to work within a public right-of-way, to assure construction plans are reviewed and approved and restoration of the rights-of-way are completed. Deschutes County permits would be issued at the time of construction.

In summary, Cline Falls Oasis residents could receive domestic water service through the Eagle Crest domestic water supply system, by installation of water mains in the existing public rights-of-way.

Please consider my comments and never hesitate to contact me if you have questions or needs for additional information.

Very truly yours,  
W&H PACIFIC, INC.

Thomas A. Walker, P.E., C.W.R.E.  
Senior Associate

cc: Bill Lyche  
Richard Whitman

05260101\eb082593.ltr







BEVERLY CLARNO  
Majority Whip  
House of Representatives

**EXHIBIT "D"**

**G-12905**

WATER RESOURCES DEPARTMENT  
REGISTRATION  
**ARLH-DeCo.**

**6-29-93**

**(3 pg)**

January 28, 1993

cc: Martha  
for response  
ASAP.

Hayes  
for

Martha Pagel, Director  
Water Resources Department  
3850 Portland Road NE  
Salem, OR 97310

Dear Martha,

Enclosed please find a copy of a letter from Mr. Jerol E. Andres, outlining his concerns with a water right appropriation application. I would appreciate it if you would respond to Mr. Andres' concerns and send a copy of the correspondence to my office.

Thank you in advance for your help with this issue. If you have any questions or comments, please do not hesitate to contact me at my office, 378-8883.

Sincerely,

Beverly Clarno  
Majority Whip  
State Representative

RECEIVED

JUN 30 1993

WATER RESOURCES DEPARTMENT  
SALMON, WYOMING

Encl.  
cc: Jerol E. Andres

BC/gc





FEB 1 REC'D

January 26, 1993

Ms. Bev Clarno, State Rep.  
P.O. Box 573  
Redmond, OR 97756

Re: Eagle Crest Resort  
Water Right Appropriation Applications  
526-0101

Dear Bev:

Eagle Crest has spent the past year attempting to gain approval from the Oregon Water Resources Department (OWRD) for water use on a proposed expansion of our resort west of Cline Falls Road. Our efforts to date have been unsuccessful and your assistance is respectfully requested.

On April 28, 1992, Eagle Ridge Development Corporation submitted a water right appropriation application to the OWRD for quasi-municipal use. The water is intended to support a proposed expansion of our resort and include such uses as group domestic, commercial, construction, fire protection, dust control, and irrigation of landscaped common areas. A golf course irrigation permit was obtained previously and uses associated with the golf course are not included in our pending application.

In addition to the standard application and application map, Eagle Crest retained David J. Newton & Associates to complete a hydrogeological study. Pilot and production wells were constructed for the golf course and thorough testing was completed and analyzed. The analysis of the existing wells is included in the David J. Newton study. The David J. Newton study concluded adequate water supplies are available and no interference with other wells or surface water will occur. It is interesting to also note that the conclusion of the David J. Newton study conforms to the conclusions reached by the Bureau of Reclamation, in their Technical Reconnaissance Report study, dated October 1, 1991.

Eagle Crest  
P.O. Box 1215  
Redmond, OR 97756  
(503) 923-0807



Ms. Bev Clarno

- 2 -

January 26, 1993

Our application for a groundwater permit is supported by the City of Redmond and numerous other agencies in the Central Oregon area. Numerous letters have been submitted to the OWRD, soliciting timely permit issuance for Eagle Crest. The City of Redmond believes the expansion of Eagle Crest provides a significant economic benefit to Central Oregon. We are one of Redmond's largest employers, our tax base is of substantial benefit to the Redmond School District, and our company's employees serve in many leadership capacities within our community. An independent consultant has determined that our Eagle Crest expansion will add an additional \$115 million dollars to the regional payroll over the next ten years.

To date, our efforts have resulted in little progress. The OWRD groundwater section did verbally advise us that no interference or other groundwater problems with OWRD are expected. We have heard nothing from the permit section and really don't know what to do.

Over the past years we have worked concurrently on land use approvals for Eagle Crest. We will soon find ourselves with the appropriate land use approvals, but no water supply to enact them. We are also concerned that once a permit is drafted, additional significant delays may occur as a result of appeals from Oregon Water Watch.

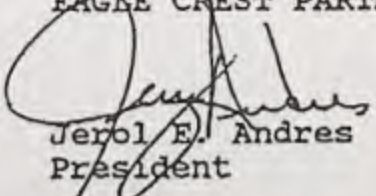
Our experience suggests the OWRD is at a procedural deadlock. I believe the staff at OWRD has done everything in their power to assist us, but are unable to work within their system. The time has come when the procedural problems at OWRD have jeopardized the expansion of Eagle Crest Resort and the associated economic benefit to Central Oregon.

Your review and assistance are respectfully requested. We will be pleased to provide you with any additional information and I recommend that you contact Mr. Tom Walker, P.E. (388-4255) at any time to obtain specific information on our application.

Your assistance is appreciated. I look forward to your response.

Very truly yours,

EAGLE CREST PARTNERS, LTD.



Jerol E. Andres  
President

cc: Bill Lyche



EXHIBIT "E"

G-12905  
ARLU-DeG.  
6-29-93

MEMORANDUM

TO: Fred Lissner      DATE: July 6, 1992  
FROM: Steve Brown *[Signature]*  
RE: Division 9 review, Application G-12905  
Eagle Ridge Development Corporation  
Please expedite a review of Application G-12905.

RECEIVED  
JUN 11 1992  
ADMINISTRATIVE  
ON DIV. 9

To Support Services:

7/6/92

- ① take file to fiscal and get a copy of the receipt for file.
- ② have fiscal note fees paid on file.
- ③ place in Fred's "in urgent basket"

*[Signature]*







cc: Karen Russell, Water Watch  
Alliance for Responsible Land Use in Des. Co. (ARLU De Co)  
Friends of Cline Butte

App 1 6-12905  
6-12912

Post-it "routing request pad 7604

# ROUTING - REQUEST

4/28

Please

Tom Shook:

Please respond, to letter.

Thanks for your letter of concern. Enclosed is

the TR. Please provide an  
objection by 5/15/93  
I am - files attached

Street  
on 97756

3

RECEIVED

APR 12 1993

WATER RESOURCES DEPT  
SALEM, OREGON

Marti  
Oreg  
3850  
Salem

Dear I

A number of Canyon River Territory, located next to Eagle Crest Resort, are concerned about our ground water supply if Eagle Crest is allowed to proceed with one of the proposed plans, enclosed for your review.

The depletion of the aquifer is our main concern, but also, we wonder if the transfer of water from wells from one area to another is legal since the water is not being used for the intended purpose when the well permit was issued.

As you can see by the photographs enclosed, it is apparent that Eagle Crest intends to transfer water, as the pipes (10-inches in diameter), and perhaps a booster pump, have been installed next to Cline Falls Road. No tunneling has been detected so far.

I have contacted our local Water Master about this matter, and he stated as far as he was concerned, no permission has been granted Eagle Crest to implement any new water plan allowing transfer of water across Cline Falls Road. He suggested I inquire about this to the Water Resources Department in Salem.

Would you favor me with a letter stating the legality of the conceptual water plans enclosed, and who will monitor the wells used as to the distribution of domestic and/or irrigation water. As you must know, Eagle Crest intends to build 900 dwellings, a 250-unit hotel and restaurant, one 18-hole golf course (one 18-hole golf course currently operational at the existing resort and a second 18-hole-golf course is proposed on Cline Butte at a later date). Ground water will be used for domestic use as well as for irrigation of three golf courses.

We vigorously protest Eagle Crest's proposal, and desire that the Water Resources Department will not approve their application. The original water permits were surely not issued for this purpose. Thank you for your assistance.

Sincerely,

Clifford J. Shook



cc: Karen Russell, Water Watch  
Alliance for Responsible Land Use in Des. Co. (ARLU De Co)  
Friends of Cline Butte

Post-It "routing request pad 7664  
(K&N)

## ROUTING - REQUEST

Please

|                          |                 |
|--------------------------|-----------------|
| <input type="checkbox"/> | READ            |
| <input type="checkbox"/> | HANDLE          |
| <input type="checkbox"/> | APPROVE         |
| <input type="checkbox"/> | FORWARD         |
| <input type="checkbox"/> | RETURN          |
| <input type="checkbox"/> | KEEP OR DISCARD |
| <input type="checkbox"/> | REVIEW WITH ME  |

Marti  
Oreg  
3850  
Salem

Dear I

Date 4/12

To Marti  
Please respond  
directly  
Thank  
Di

From

Street  
on 97756

3

RECEIVED

APR 12 1993

WATER RESOURCES DEPT  
SALEM, OREGON

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Sincerely,

*Clifford J. She*



cc: Karen Russell, Water Watch  
Alliance for Responsible Land Use in Des. Co. (ARLU De Co)  
Friends of Cline Butte

C.T. Thomas  
3201 SW 73rd Street  
Redmond, Oregon 97756

April 10, 1993

APR 1 6-12905  
6-1242  
RECEIVED

APR 12 1993

WATER RESOURCES DEPT  
SALEM, OREGON

Martha Pagel, Director  
Oregon Water Resources Dept.  
3850 Portland Road, NE  
Salem, Oregon 97310

Dear Director Pagel:

A number of residents of Canyon River Territory, located next to Eagle Crest Resort, are concerned about our ground water supply if Eagle Crest is allowed to proceed with one of the proposed plans, enclosed for your review.

The depletion of the aquifer is our main concern, but also, we wonder if the transfer of water from wells from one area to another is legal since the water is not being used for the intended purpose when the well permit was issued.

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We vigorously protest Eagle Crest's proposal, and desire that the Water Resources Department will not approve their application. The original water permits were surely not issued for this purpose. Thank you for your assistance.

Sincerely,

C. T. Thomas



# EAGLE CREST CONCEPTUAL WATER PLAN ALTERNATIVE #1

RECEIVED  
APR 12 1993  
WATER RESOURCES DEPT  
SALEM, OREGON

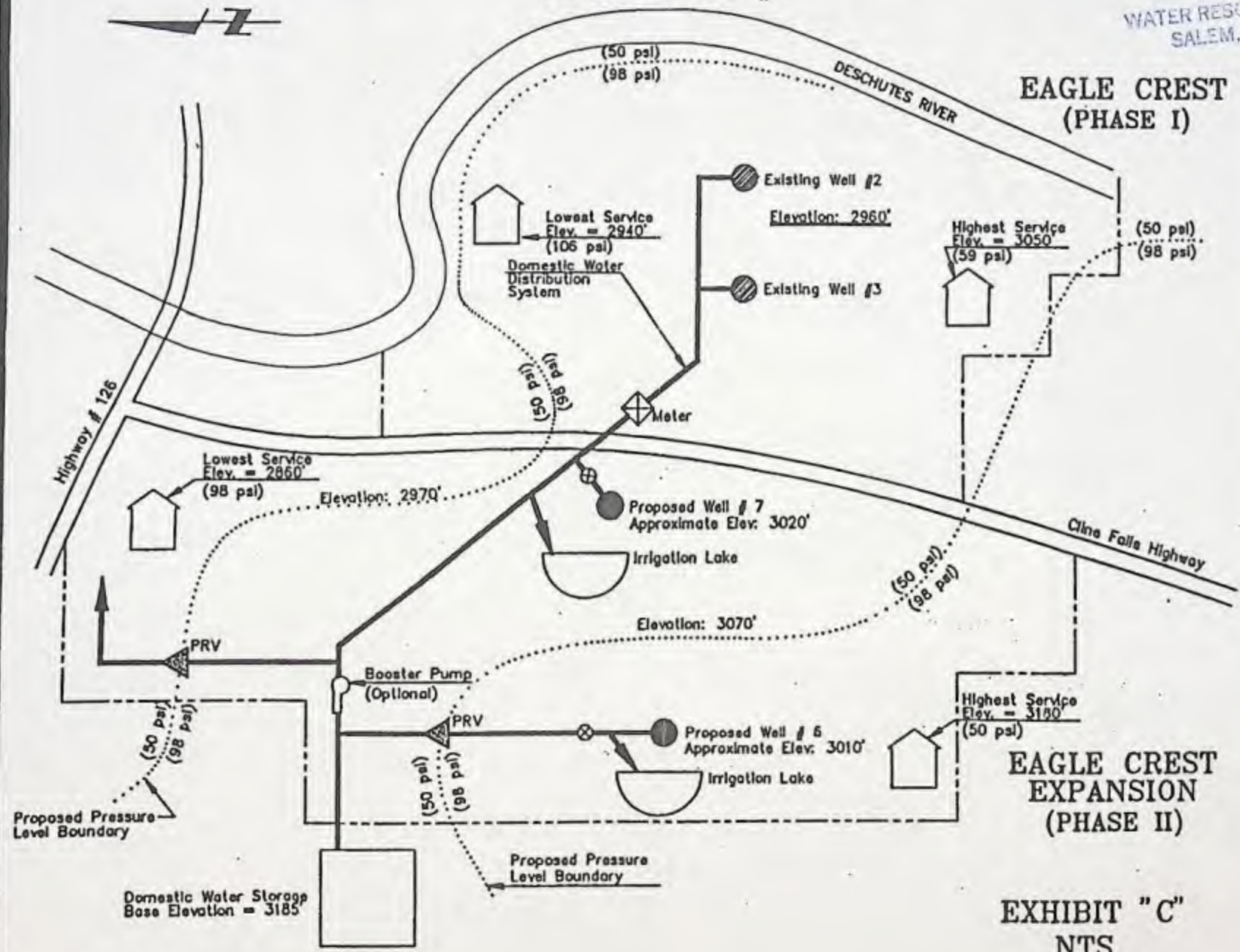


EXHIBIT "C"  
NTS



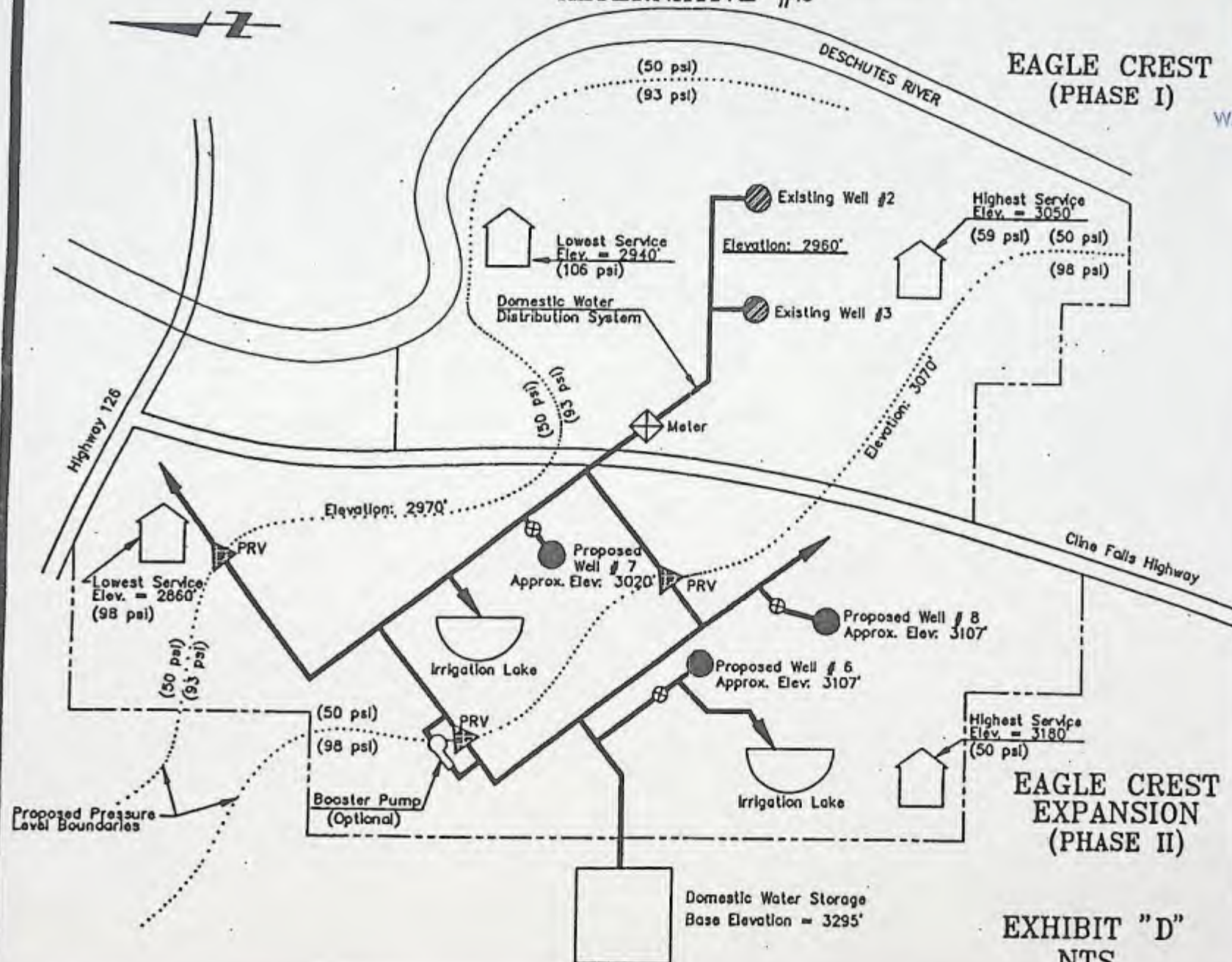
# EAGLE CREST CONCEPTUAL WATER PLAN ALTERNATIVE #2

RECEIVED

APR 12 1993

WATER RESOURCES DEPT  
ALEM, OREGON

## EAGLE CREST (PHASE I)



## EAGLE CREST EXPANSION (PHASE II)

EXHIBIT "D"  
NTS



**DAVID J. NEWTON ASSOCIATES, INC.**

1201 SW 12th Ave. 767 Willamette St.  
Ste. 620 □ Ste. 306 □  
PORTLAND, OR 97205 EUGENE, OREGON 97401

(503) 228-7718 (503) 344-0955  
FAX (503) 228-7781 FAX (503) 344-1827

*File G-12905*  
**LETTER OF TRANSMITTAL**

|           |                                                                                                 |         |         |
|-----------|-------------------------------------------------------------------------------------------------|---------|---------|
| DATE      | 9/30/93                                                                                         | JOB NO. | 215-192 |
| ATTENTION | STEVE BROWN                                                                                     |         |         |
| RE        | Eagle Ridge Development Corp.<br>Groundwater Appropriation Application<br>DEWORD File # G-12905 |         |         |
|           |                                                                                                 |         |         |
|           |                                                                                                 |         |         |
|           |                                                                                                 |         |         |

TO Steve Brown, OWRD  
3850 Portland Rd. NE  
Salem OR 97310

**RECEIVED**

**OCT 04 1993**

WATER RESOURCES DEPT  
SALEM, OREGON

WE ARE SENDING YOU ☒ Attached ☐ Under separate cover via \_\_\_\_\_ the following items:

- ☐ Shop drawings ☐ Prints ☐ Plans ☐ Samples ☐ Specifications  
☐ Copy of letter ☐ Change order ☒ Report

| COPIES | DATE    | NO. | DESCRIPTION                                                         |
|--------|---------|-----|---------------------------------------------------------------------|
| 1      | 9/30/93 |     | Hydrogeologic Study, Eagle Crest Phase II,<br>Supplemental Findings |
|        |         |     |                                                                     |
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THESE ARE TRANSMITTED as checked below:

- ☐ For approval ☐ Approved as submitted ☐ Resubmit \_\_\_\_\_ copies for approval  
☒ For your use ☐ Approved as noted ☐ Submit \_\_\_\_\_ copies for distribution  
☐ As requested ☐ Returned for corrections ☐ Return \_\_\_\_\_ corrected prints  
☐ For review and comment ☐ \_\_\_\_\_  
☐ FOR BIDS DUE \_\_\_\_\_ 19 \_\_\_\_\_ ☐ PRINTS RETURNED AFTER LOAN TO US

REMARKS \_\_\_\_\_  
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COPY TO Tom Walker, W&H Pacific

SIGNED: \_\_\_\_\_

*[Signature]*



# DAVID J. NEWTON ASSOCIATES, INC.

1201 SW 12th Ave.  
Ste. 520  
PORTLAND, OR 97205

757 Willamette St.  
Ste. 306  
EUGENE, OREGON 97401

(503) 228-7718 (503) 344-0955  
FAX (503) 228-7781 FAX (503) 344-1827

## LETTER OF TRANSMITTAL

|           |                                                                                               |         |         |
|-----------|-----------------------------------------------------------------------------------------------|---------|---------|
| DATE      | 9/30/93                                                                                       | JOB NO. | 215-172 |
| ATTENTION | STEVE BROWN                                                                                   |         |         |
| RE        | Eagle Ridge Development Corp.<br>Groundwater Appropriation Application<br>OWRD File # G-12905 |         |         |
|           |                                                                                               |         |         |
|           |                                                                                               |         |         |
|           |                                                                                               |         |         |

TO Steve Brown, OWRD  
3850 Portland Rd. NE  
Salem OR 97310

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☐ Copy of letter ☐ Change order ☒ Report

| COPIES | DATE    | NO. | DESCRIPTION                                                         |
|--------|---------|-----|---------------------------------------------------------------------|
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REMARKS \_\_\_\_\_  
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COPY TO Tom Walker, W&P Pacific

SIGNED: \_\_\_\_\_



DAVID J. NEWTON ASSOCIATES, INC.  
1201 SW 12th Ave. Ste. 620 □ PORTLAND, OR 97205  
767 Wilamette St. Ste. 306 □ EUGENE, OREGON 97401

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TO Steve Brown, OWRD  
3850 Portland Rd. NE  
Salem OR 97310

|                                              |                           |
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| ATTENTION<br><u>STEVE BROWN</u>              |                           |
| RE<br><u>Eagle Ridge Development Corp.</u>   |                           |
| <u>Groundwater Appropriation Application</u> |                           |
| <u>OWRD File # G-12905</u>                   |                           |
|                                              |                           |
|                                              |                           |
|                                              |                           |

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REMARKS \_\_\_\_\_  
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\_\_\_\_\_

COPY TO Tom Walker, W&H Pacific

SIGNED: \_\_\_\_\_







# EXHIBIT "M"

G-12905  
ARLU-DeG.

6-29-93

January 3, 1993

(46 PAGES/SIDES)

To: Michael Rupp  
DLCD, Plan Review Manager

Re: Deschutes County Wildlife Plan and Ordinances

I have submitted 4 letters/hearing testimonies pertaining to wildlife during Deschutes County Periodic Review. My special area of concern has been riparian habitat protection.

As a professional biologist/ecologist I am acutely aware of the importance and rarity of habitats near water in the high desert. These areas are "hotspots" of biological diversity for plants, insects, and wildlife, integral to watershed function, and landscape level corridors for plant and animal movement.

The major protection for these areas in our Comprehensive Plan and zoning ordinances has been a 100 foot setback from the high water mark for structures and sewage disposal. They were also included in the Wildlife Area Combining Zone as defined by 18.88.020 Application of Provisions. I brought this up at a land use hearing last year and was dismayed to learn the County had never enforced Chapter 18.88 protective provisions for riparian areas. Several months later I found this reference had been removed with the explanation that there is not an adequate inventory. The only concession to my concerns was a promise "to review existing protection of riparian and wetland vegetation and recommend comprehensive plan and ordinance amendments, if necessary, by December 31, 1993" (92-041 pg 75).

I believe the County must address the following issues before approval of their final periodic review:

1) Is protecting "riparian vegetation" the same as protecting "riparian habitat"? Our major concern should be **habitat** which is vulnerable to the cumulative effects of disturbance and fragmentation.

2) Does protecting a 100 foot buffer zone along a stream adequately protect riparian zones? Many plant associations considered as part of riparian zones are graminoid-dominated associations such as meadows of sedges, tufted hairgrass, or Kentucky bluegrass, located on inactive floodplains, basins, or other high water table sites. These subirrigated sites are defined as transitional riparian zones in standard references such as Kovalchiks' "Riparian Zone Associations" and perform an important function as part of the riparian ecosystem. Topography determines the zone of riparian influence and these areas can be easily identified by noting the plants which are present.



3) If there is some question as to whether riparian zones are adequately protected, why not show caution until the promised review can be completed in 1993? A moratorium, special review of applications that include riparian areas, or shifting the burden of acquiring additional biological information on the applicant are all possible and prudent.

4) Promising to do another review while weakening existing protection in a time of rapid growth is irresponsible. Is this a thorough job of periodic review?

5) When will cumulative effects be considered? There has been no review of what has already happened to these habitats and no review of the need for additional parcelization. I will be presenting evidence on cumulative effects in the Indian Ford watershed on January 19th on a partition application in my neighborhood (#MP-92-61, CU-92-190). Why does the burden of proof fall on me as a concerned neighbor?

Please review my April 22, 1992 and May 26, 1992 comments. I include a reference on growth management and environmentally sensitive areas by Larsen and Morrell.

Now is the time to take another look at what is happening in our county and plan for the future. The Countys' notorious record on periodic review extensions does not augur great hope for a timely completion of the riparian review extension they have granted themselves. Meanwhile the insidious loss of habitat and habitat effectiveness continues, one application at a time.

Thank you for the opportunity to express my concerns.

*Maret Pajutee*

Maret Pajutee  
P.O. Box 801  
Sisters , OR 97759

cc: Marc Liverman, ODFW  
Ted Wise, ODFW



## Public asks for greater wildlife protection

by Renee Oakes

Witnesses criticized Deschutes County's lack of riparian wetlands protection within a proposed wildlife package at a Deschutes County Board of Commissioners public hearing May 26.

Maret Pajute, representing the Alliance for Responsible Land Use - Deschutes County (ARLU-DeCo), testified that "riparian wetlands are the most critical (wildlife) habitats in Deschutes County."

Sisters resident Jen Twining added "the county would be negligent if it did not begin work immediately on riparian areas."

In response to this opposition, staff planner Catherine Morrow responded that the state required the deletion of ambiguous language from the county's wildlife resource. The language addressing riparian wetlands was one such section, Morrow indicated.

Additionally, Morrow said the county presently has no established definition for riparian areas nor does it have standards to inventory them.

Pajutee disagrees, believing the information is available to protect riparian areas, and she

urged the county to act now.

The package instead recommends a December 31, 1993, deadline to strengthen riparian protection. The county planning commissioners felt this date would provide time to gather concise information on each site.

If the wildlife package is approved, big game, sensitive birds and bats will however immediately benefit from a number of protection measures.

Larger lot sizes for new land divisions in deer winter ranges, deer migration corridors, elk habitats and antelope habitats have been recommended. The purpose is to encourage unrestricted animal movement.

Several newly discovered elk and antelope habitats were added to the county's wildlife map.

The inclusion of these habitats, according to planner Morrow, may require a revision of the county's destination resort siting maps since destination resorts, as well as schools and churches, will be prohibited uses in the wildlife zones.

One new deer winter range in the northeast portion of the county near Smith Rock received much scrutiny during the hearing since it had not been

inventoried previously.

Norm Behrens, biologist for the Oregon Department of Fish and Wildlife (ODFW), testified the site is "just as important as any other site." He urged commissioners to retain this new habitat in the final decision.

Protection for sensitive birds and bats will come in the form of buffer zones that are aimed at giving the animals adequate distance from nearby land uses. Sisters resident Rod Bonacker felt the sensitive bird section would be an ideal place to insert future riparian protection.

Commissioner Dick Maudlin questioned the planning commission's recommendation to allow parks as a conditional use in a wildlife zone. The fact that Smith Rock receives approximately 300,000 visitors annually already creates a "huge conflict" for wildlife stated Maudlin.

A decision will be issued Wednesday, June 10, 1992, at 10 a.m. in Hearings Room "A" of the Juvenile Justice Center. At that time the board of commissioners will also decide on a surface mining package that documents possible conflicts between mining sites and wildlife.

*The Nugget* June 3, 1992



# Opportunities and Constraints for Development and Conservation: Teller County/Woodland Park Growth Management Plan\*

**LARRY LARSEN**

**TERRI MORRELL**

City of Woodland Park Planning Department  
P O Box 9007  
Woodland Park, Colorado 80866, USA

**DAVID WOOD**

**MEGHAN GALLIONE**

**BRUCE GUERARD**

**JUDITH KARINEN**

Program in Urban and Regional Planning  
School of Architecture and Planning  
University of Colorado at Denver  
Denver, Colorado 80204-5300, USA

**KIP PETERSEN**

Teller County Planning Department  
P O Box 1886  
Woodland Park, Colorado 80863, USA

**FREDERICK STEINER†**

Department of Planning  
College of Architecture and Environmental Design  
Arizona State University  
Tempe, Arizona 85287-2005, USA

**ABSTRACT** / This is the second of three articles prepared to explain the Teller County growth management process. As part of an ongoing growth management process in Teller County, Colorado, opportunities and constraints for development and conservation were identified. The scenic mountain county faces a number of issues because of growth. The recognition of those issues has resulted in the goal to direct future growth to the most appropriate and cost-effective places. To determine those places that are best for new development, thorough ecological inventories were conducted for the entire county as well as for the City of Woodland Park area. From these inventories, environmentally sensitive areas were identified. The environmentally sensitive areas were considered constraints in conducting suitability analyses for a variety of potential land uses. The suitability analyses resulted in the identification of opportunities for future growth in Teller County generally as well as the more specific Woodland Park planning area. This article, like the other two, is part of a reflective analysis by the planners who were involved.

Teller County is located in the eastern Rocky Mountains in central Colorado (Figure 1). The county lies immediately west of El Paso County, the location of the second largest city in Colorado, Colorado Springs. Park County forms its western border, Jefferson and Douglas counties are to the north, and Fremont County is to the south. Located in the Front Range of the Rocky Mountains, Teller County is positioned in a transitional zone between the eastern plains and the high mountains to the west.

Teller County was incorporated in 1879, from portions of both El Paso and Fremont counties. With an area of 555 sq mi (893.55 sq km), Teller is one of Colo-

rado's smaller counties (Balick and McKee 1975). Elevations in the mountainous terrain range from approximately 7200 ft (2194.56 m) in the extreme southern portion of the county, to nearly 13,000 ft (3962.4 m) along the Pikes Peak Massif in the east-central portion. Over half the land is in public domain, managed by the federal or state government. Public land includes Pike National Forest, Florissant Fossil Beds National Monument, and Mueller State Park. Primary transportation routes through Teller County are US Highway 24, generally running east-west, and Colorado Highway 67, traveling in a north-south direction.

The largest city in Teller County is Woodland Park (elevation 8880 ft, 2682.2 m), which is situated in the northeast portion of the county, at the divide between two major drainage basins: the South Platte and the Arkansas. With a population of approximately 4600 persons (and an additional 2000 persons residing within the adjacent unincorporated areas), the

**KEY WORDS** Landscape planning, Ecological inventories, Suitability analysis, Environmentally sensitive areas

\*Paper 2 in a series 3

†Author to whom correspondence should be addressed.



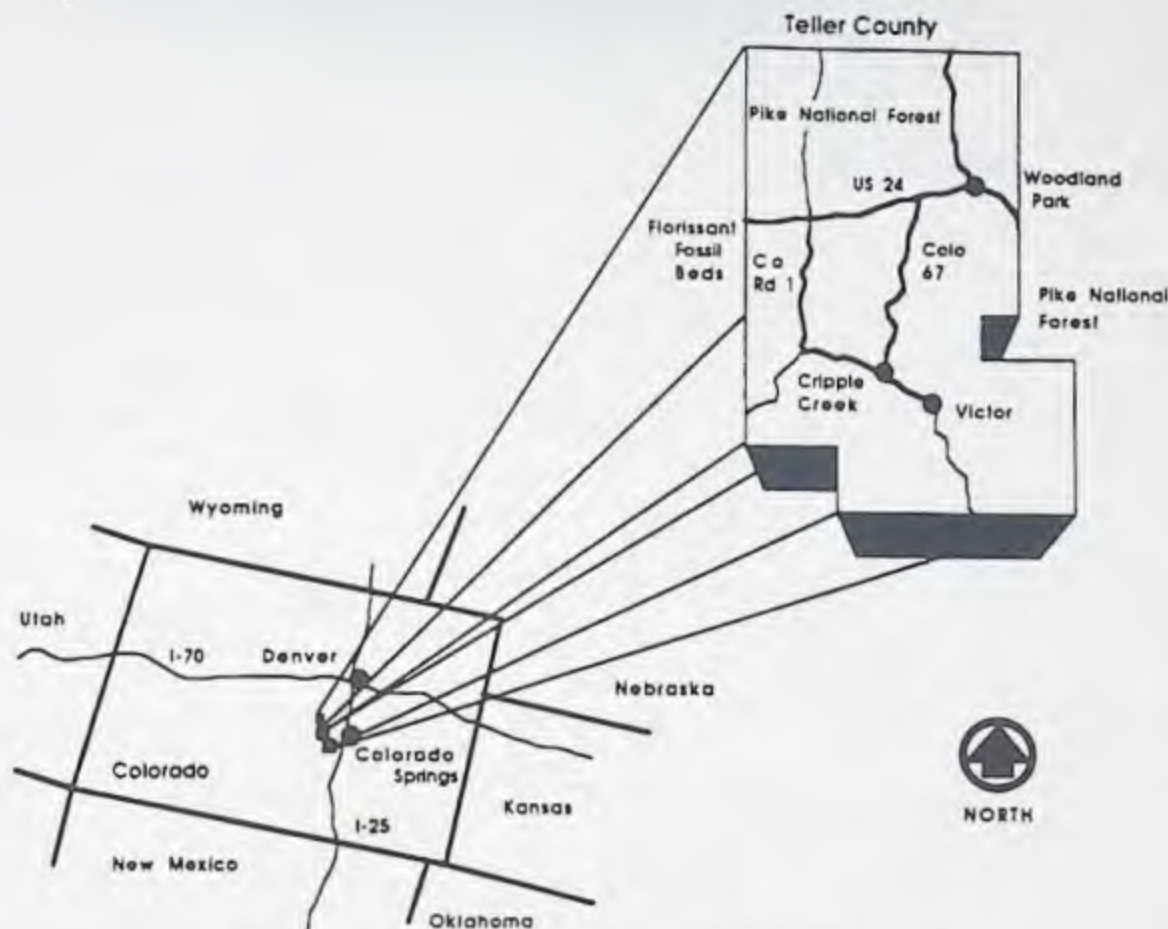


Figure 1. Location of Teller County and Woodland Park, Colorado.

economy is mainly supported by local services and tourism.

Cripple Creek, the county seat, has a population of approximately 800 persons year-round and 1000 persons in the summer. During the summer months, an estimated 300,000 to 400,000 tourists visit this historic mining town. Besides tourism, the Cripple Creek economy relies on the many gold mines that still exist in the area. The adjacent city of Victor (elevation 9695 ft, 2955 m), with a population of approximately 285 persons year-round and 785 persons in the summer, is located on the southwest slope of Squaw Mountain. Its economy is also dependent on gold mining and tourism, as well as retirees. The area around Cripple Creek and Victor has been designated an Historic Preservation District by Teller County and is listed in the National Register of Historic Places.

Divide (elevation 9165 ft, 2793.5 m) is an unincorporated community located eight miles (12.8 km) west of Woodland Park. Due to the expansion of Woodland Park, Divide is currently experiencing growth. Like Woodland Park, Divide's economy is supported by

local services and commuters to Colorado Springs. Florissant (elevation 8460 ft, 2578.6 m), another unincorporated place, has a population of approximately 118 persons. Situated in a wide valley opening to the west along Twin Creek, Florissant is the site of a prehistoric lake bed. The Florissant Fossil Beds National Monument has yielded many clues to the variety of ancient organic life forms that existed in the area.

#### Planning Issues and Their Recognition in the Community

The population in Teller County increased from 3316 persons to 12,437 between 1970 and 1990 and is expected to reach 16,000 by the year 2000. In the recent past, its annual growth rate has been 7%–10%, the highest in Colorado. The majority of the county is sparsely populated, with most of its residents living in or near Woodland Park. The combination of mountain scenery and convenient access to Colorado Springs makes the county attractive for residents. As a result, its rural character is changing rapidly as larger



landholdings formerly used for ranching are being subdivided into low-density residential developments.

The continued growth of Teller County and Woodland Park raises several specific issues that need to be addressed by local officials and planners. The primary concern of local residents is that new development should not be a burden on taxpayers (Horn and others 1983). A second important issue involves the quality of new development. It is felt that there should be policies and guidelines that ensure good-quality development (Horn and others 1983). A third concern is that new development be phased with the ability of local governments to provide services and facilities (Petersen and others 1989). These three issues have been identified by local residents through an ongoing public participation process initiated by them. Once the concerns were publicly identified, there was a desire that the issues generated by growth be addressed.

As a result, a growth management planning process was undertaken. State law enabled such a process to occur. As specifically authorized in Colorado Revised Statute Chapter 29.20.101 et seq., the Local Government Land Use Control Enabling Act, the county and communities may utilize the authority granted to local governments by the state to plan and regulate the use of land. In Colorado Revised Statute Chapter 29.20.105 et seq., which addresses intergovernmental cooperation, the county and communities are authorized and encouraged to cooperate with each other for the purposes of planning and managing growth.

In late 1987, the planning departments for Teller County and the City of Woodland Park proposed to their planning commissions that a joint planning program be initiated to manage growth within the county and participating communities. Both planning commissions endorsed the proposal and incorporated the desire to develop the plan into their work programs for 1988. Shortly thereafter, the county and city elected officials supported the commissions' recommended work programs and authorized the Teller County growth management planning process. Joint meetings of the planning commissions began in January, and by March 1988 both had approved a plan outline, timetable, citizen involvement program, and purpose statements. The commissioners spent the next six months attending "town hall" meetings in various locations throughout the county, soliciting other communities to join the planning effort, and listening to the concerns and issues of county residents pertaining to growth and growth management (Larsen and Morrell 1989). By the autumn of 1988, the commissions began to review and approve specific sections of the plan document, including the goals of the plan.

The goals articulated the growth opportunity and constraint issues, as identified by the county residents at the town hall meetings.

## Goals

The intent of the Teller County growth management plan is to provide for planned and orderly development within the county and cooperating cities, towns, and areas, while balancing basic human needs of a changing population and maintaining a healthy environment for future generations. The plan is designed to be utilized as a land-use development and conservation decision-making guide, to reinforce local goals and values, and to support county and city decisions regarding coordinated, sequenced, and timely growth. The following ten goals were established in the plan:

1. Provide for planned and orderly use of the land and the environment in a manner consistent with constitutional rights
2. Regulate the use of land on the basis of the impact on the county and its communities
3. Provide for the phased development of services and facilities
4. Regulate the location of activities and developments that may result in significant changes in population density
5. Regulate development and activities in hazardous areas
6. Protect lands from activities that would cause immediate or foreseeable material danger to significant wildlife habitat and would endanger wildlife species
7. Preserve areas of historical and archaeological significance
8. Provide for the necessary intergovernmental cooperation required for planning and regulating the use of land
9. Provide for appropriate quality design, arrangement, and affordability of development that will enhance the sense of community for the county's communities and regions
10. Provide for balanced diversified economic development strategies and opportunities (Petersen and others 1989)

## Teller County Inventory

These goals established an ambitious program for local planners. Much information needed to be collected so that the goals could be achieved. Ecological



landscape inventories and analyses were simultaneously conducted for the county (regional level) and the Woodland Park planning area (local level) (Ansbro and others 1988, Bowie and others 1988). Teller County looks like the image of Colorado portrayed in post cards: dramatic mountain peaks, free flowing streams, and coniferous forests. Valuable mineral resources, especially gold, attracted many settlers to the region at the end of the 19th century. More recent suburban and tourism-related settlement also has resulted from the lure of the regional landscape.

The elements studied in the landscape assessment of Teller County included the key biophysical processes: geology, physiography, climate, hydrology, soils, vegetation, and wildlife. Important components of the built environment, such as building condition and land use, were studied also. Data were collected about the history of the county, its settlement, demographics, the local economy, and services and facilities. This inventory information is documented in maps and in writing at the county-level scale (Ansbro and others 1988).

Recurring landscape patterns were identified through a "layer cake" approach; each element was considered one "layer" in the landscape as a whole (McHarg 1969). In order to characterize different portions of the Teller County at the regional, county scale, east-west transect lines were selected (Figure 2) (Ansbro and others 1988). Cross sections along transects have been advocated as a technique to visualize landscape processes by McHarg (1969, also see University of Pennsylvania 1985) and Simpson (1988), among others. Vertical cross sections along three of these transects, A-A, B-B, and C-C, representative of three typical landscapes, were used to analyze processes and to reveal patterns that are repeated in different elements across the landscape.

*Section A-A (Figure 3).* This section crosses a portion of Teller County in which several elements are relatively uniform. With a rather narrow elevation range, 7600–8800 ft (2300–2700 m), this transect falls almost entirely within the montane life zone. Except for narrow bands of alluvial deposits, sandstone, and limestone in the Trout Creek area, the entire transect is underlain by the Pikes Peak Granite Batholith. Ponderosa pine and Douglas fir forest predominate, interrupted by a moderately wide bank of meadow and riparian vegetation in the Trout Creek area, narrow bands along West Creek and Turkey Creek, and a small tract of lodgepole pine on the extreme eastern side. The gentlest slopes of this section (0%–15%) lie in the Trout Creek area, the steepest (over 40%) on the western side, on the valley walls above the South

Platte River; the remainder and majority are in the intermediate range (16%–40%). Coarse sandy and rocky soils, derived from granite and sandstone, predominate.

*Section B-B (Figure 4).* This section has much more variation than section A-A. It crosses the montane, subalpine, and alpine life zones, with elevations increasing from 8600 ft (2600 m) on the west side to nearly 13,000 ft (4000 m) on the slopes below Pikes Peak. The western third of the transect successively passes through granitic rock, lake bed volcanic ash deposits, and mid-Tertiary igneous rock, then the remainder is underlain by the Pikes Peak Granite Batholith. Vegetation is mostly ponderosa pine–Douglas fir forest, alternating with scattered grasslands and meadows, with spruce–fir forest and alpine tundra in the high elevation areas on the eastern end. Slope generally increases from the gentle terrain (0%–15%) on the west side, to steep hillsides (over 40%) on the east. Three soil associations occur along this transect: deep alluvial soils in the Antelope Park area south of Florissant, variable alpine soils and rock outcrops above timberline, and coarse granite-derived soils and rock outcrops along the remainder.

*Section C-C (Figure 5).* This profile traverses the southern quarter of the county, a region with several characteristics that differ from those previously discussed. The section varies in elevation from 7800 ft (2400 m) to 10,400 ft (3200 m), with the western third, west of Cripple Creek, in the foothills and montane life zones, and the eastern two thirds in the subalpine life zone. The bedrock geology consists primarily of granite rocks but also includes gneiss and mid-Tertiary igneous rocks in the central segment. Slopes along this transect are generally in the intermediate range (16%–40%), with areas of gentle slope (0%–15%) in the High Park and Cripple Creek–Victor vicinities, and steep slopes (over 40%) on the extreme eastern end. Vegetation types alternate between pinon–juniper and grassland–meadow on the western half, and ponderosa pine–Douglas fir, aspen, and spruce–fir on the eastern half. Sandy or gravelly granite-derived soils and rock outcrops predominate, alternating with deep alluvial soils.

*Patterns on the landscape.* The foregoing relationships influence the spatial distributions of landscape elements. To begin the analysis, maps of the various landscape elements were overlain or stacked on top of one another, which allows recurring patterns or similarities in these distributions to become evident, indicating congruences between particular categories of these elements (e.g., soil types, slope ranges, vegetation, and wildlife). For instance, water runs off from



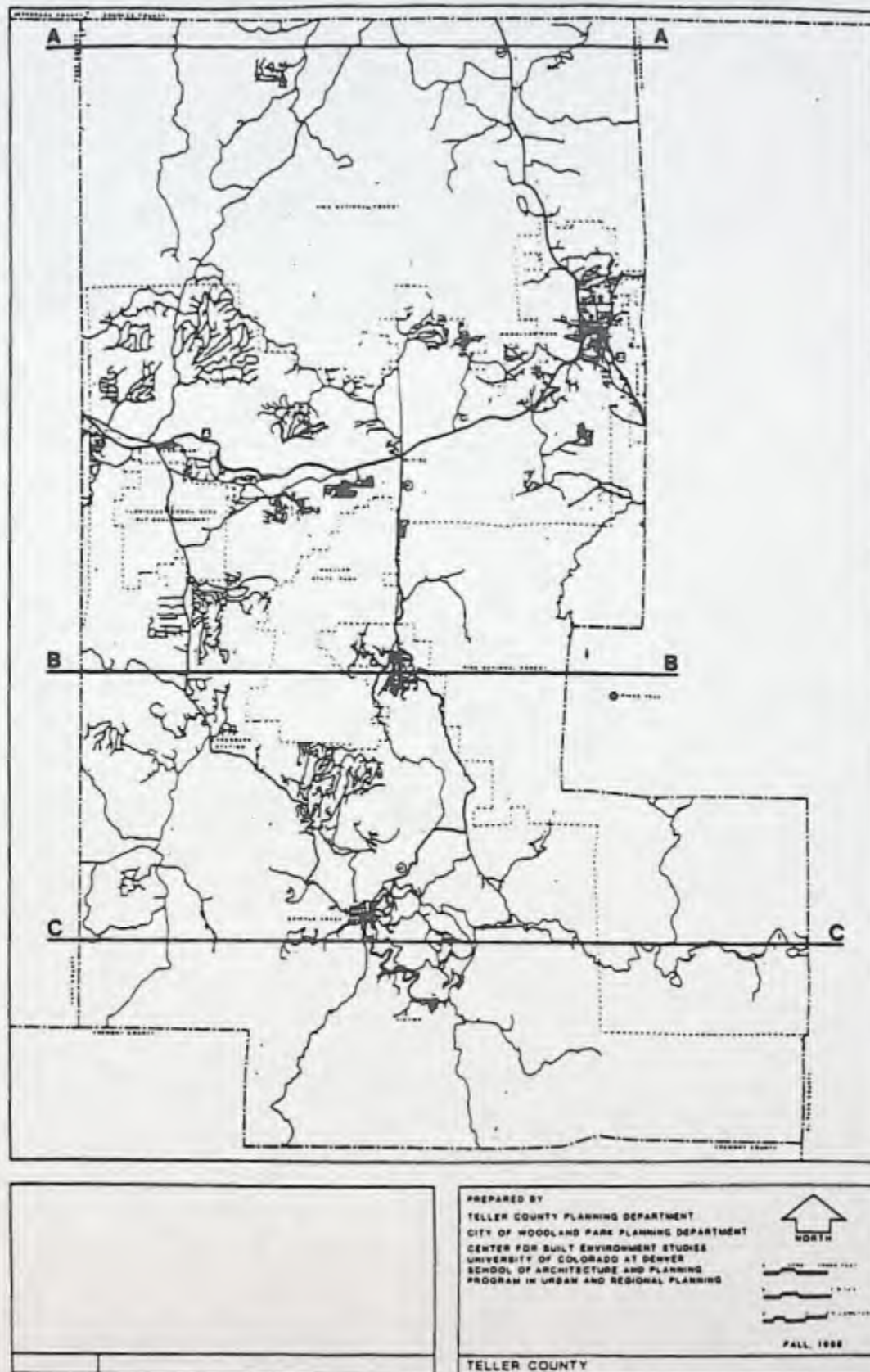
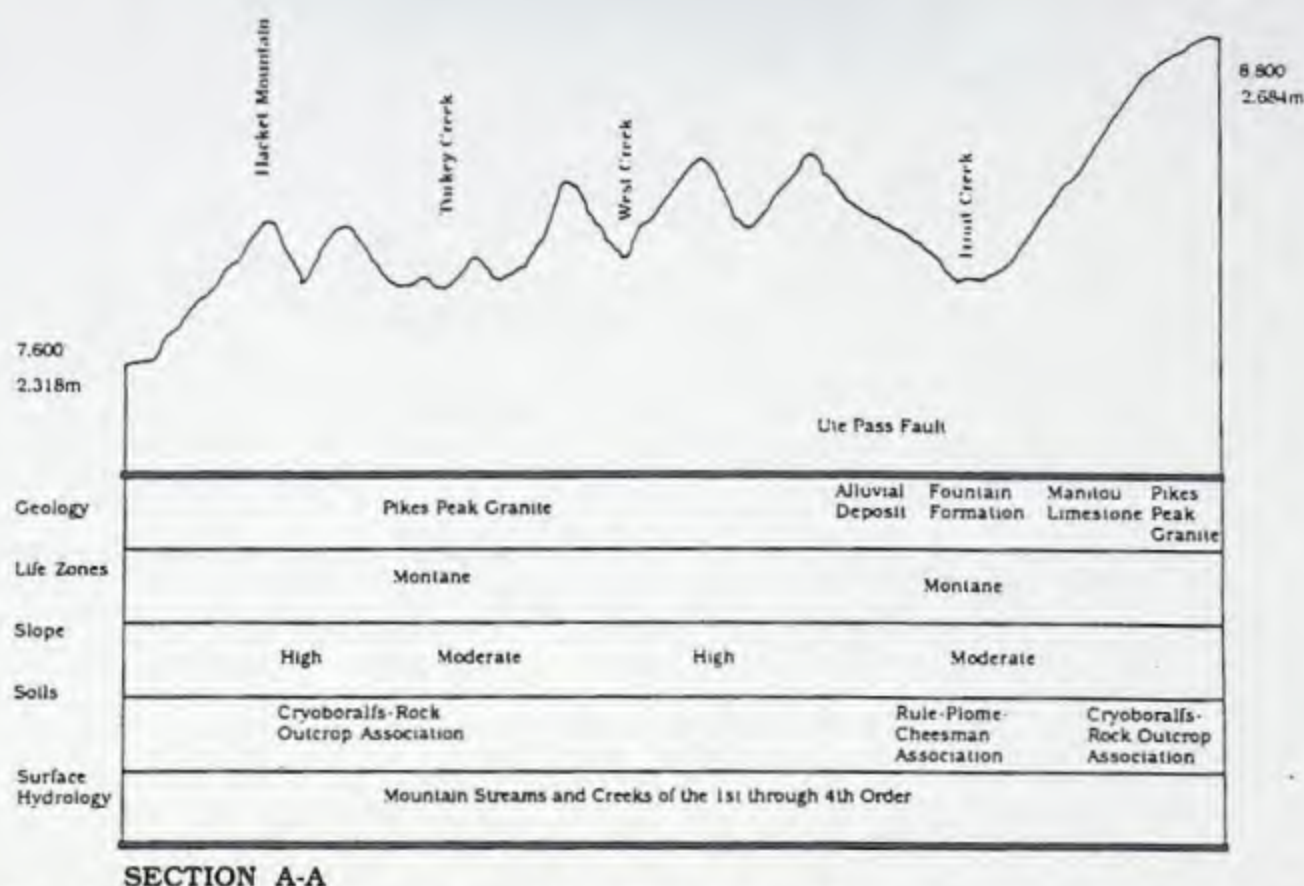


Figure 2. Locations of Teller County cross sections (adapted from Ansbrosi and others 1988).





### SECTION A-A

Figure 3. Section A-A (adapted from Ansbro and others 1988 by Media and Telecommunications Division, Auraria Library, University of Colorado at Denver).

steep slopes, carrying finely textured soil material with it. Both water and soil accumulate on the gentle terrain below, and because these finely textured soils are less permeable, water percolates more slowly and there is more soil moisture. Grasses have a competitive advantage over trees in these areas, except in the wettest parts adjacent to streams; here trees may be found along the stream banks and on the slopes above. Grazing wildlife such as elk frequent these grasslands. Using this technique, six subregions were identified in which several landscape elements are rather homogeneous (Figure 6):

1. In the northern third of the county, geology, elevation, soils, and vegetation are relatively uniform. The Pikes Peak Batholith granite underlies this entire subregion. The terrain is moderately steep and moderately dissected. Soils, derived from granite, are coarsely textured. The area is covered almost entirely by ponderosa pine-Douglas fir forest. This region lies in the montane life zone at elevations of 8000-9500 ft (2400-2900 m).

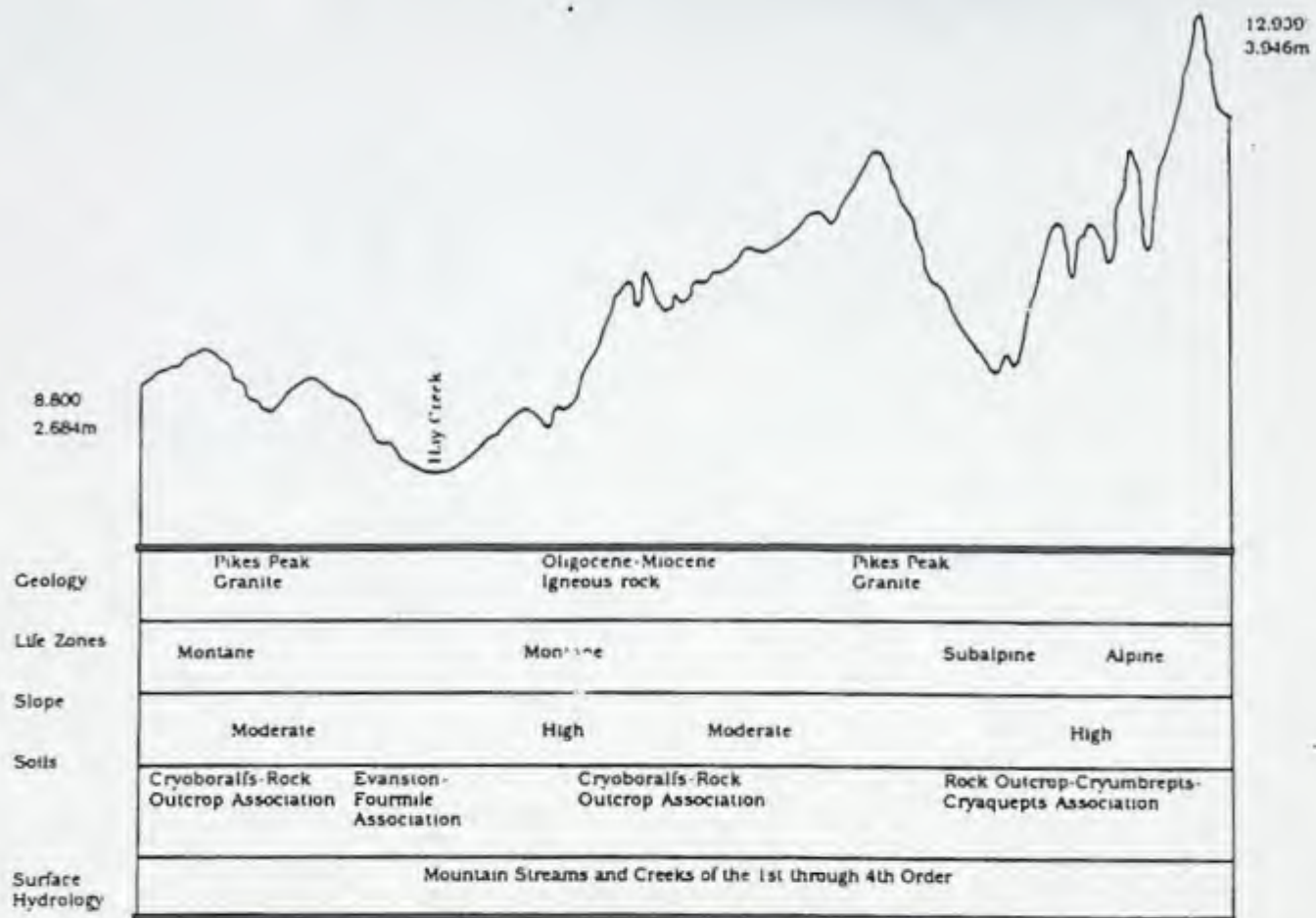
2. Geology, terrain, and vegetation are relatively uniform in the southwest portion of the county. The

substrate is crystalline rock, primarily granite but also including gneiss and mid-Tertiary igneous rock. The landscape is steep and dissected with many canyons. There is low density vegetation, mostly pinon-juniper woodland, interspersed with occasional ponderosa pine and Douglas fir.

3. The corridor from Manitou Park in the northeast, south to Woodland Park, west to Florissant, and south to High Park is an almost continuous valley of varying width. The geology is sedimentary and igneous rock plus alluvium. The gentle, rolling terrain has the lowest elevations in the county, 7600-9000 ft (2300-2700 m). The soils of this key transportation corridor are the deepest and most finely textured in the county. The open grassland and meadow vegetation allows panoramic views of the surrounding mountains, particularly Pikes Peak.

4. The Cripple Creek-Victor mining district has a geology of Oligocene and Miocene igneous rock. Although mostly nonforested today, it was heavily forested prior to the mining boom. Mining has substantially modified the landscape throughout this subregion.





### SECTION B-B

Figure 4. Section B-B (adapted from Ansbrosio and others 1988 by Media and Telecommunications Division, Auraria Library, University of Colorado at Denver).

5. The east-central portion of Teller County is a continuous subregion of alpine tundra. This area is entirely underlain by granite, with extensive tracts of barren rock and talus. Soils are variable, ranging from thin to nonexistent on rocky peaks and hillsides, to relatively deep, wet, and organic in valleys. There is non-forest vegetation: grasses, lichens, sedges, forbs, and prostrate shrubs such as willows. This tundra landscape lies in the alpine life zone above 11,500 ft (3500 m). It provides a home for bighorn sheep, particularly in summer.

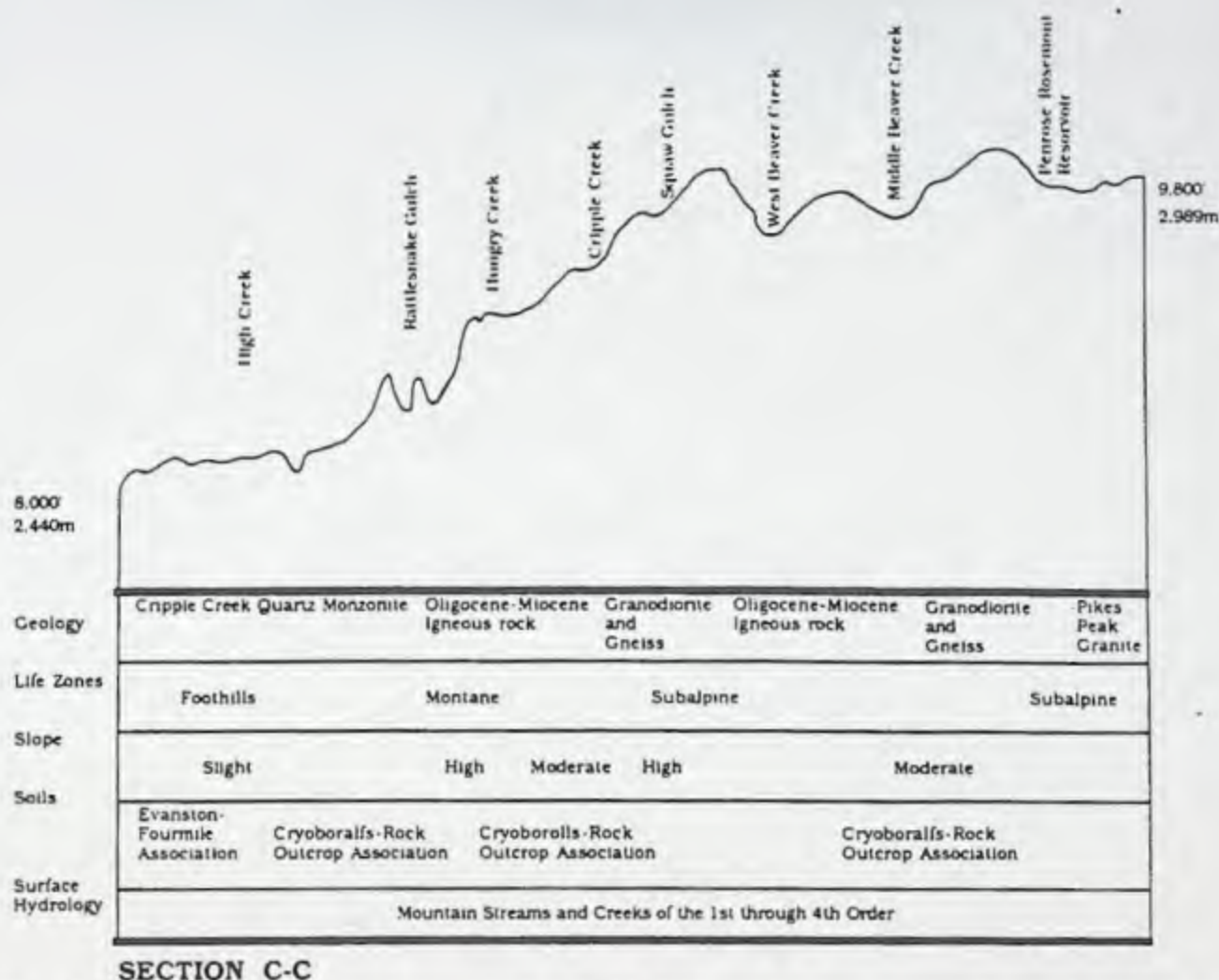
6. Less uniform, mixed forest regions comprise the remainder of Teller County. These mountainous landscapes are largely underlain by crystalline rock: granite, gneiss, and granodiorite and, to a lesser extent, other rock types. Primarily, the regions are covered with forest vegetation: aspen, spruce-fir, ponderosa pine-Douglas fir, limber pine-bristlecone pine.

Because of the connections among landscape elements, changes in one element inevitably affect others as well. Analysis of these interrelationships in assessing the implications of land uses is important. Because of the associations between landscape elements and the resulting patterns, one element, such as vegetation or slope, can be used as a general indicator of other elements, such as soil types or wildlife. For growth management or land-use planning purposes, analysis of an indicator element such as vegetation can be the basis for preliminary estimates of potential land development suitabilities at regional scales; however, more specific information is necessary for local and site planning.

### Woodland Park Growth Area Inventory

The same elements that were studied in Teller County also were inventoried for the area around





### SECTION C-C

Figure 5. Section C-C (adapted from Ansbro and others 1988 by Media and Telecommunications Division, Auraria Library, University of Colorado at Denver).

Woodland Park. Woodland Park planning area is located approximately 24 mi (38.6 k) northwest of Colorado Springs, within Teller County. The growth management study area encompasses approximately 21,000 acres (8505 ha) of land, almost 6500 acres (2632.5 ha) of which are located within the Pike National Forest boundaries. The Pike National Forest lies to the east, north, and west of Woodland Park with a small portion that is located to the south. The Woodland Park planning area lies at the junction of two state highways: Highway 67, which runs north-south, and Highway 24, which runs east-west.

The biophysical environment of Woodland Park is greatly influenced by the underlying geologic structure. The topography is a result of both the geologic units and the tectonic activity that shaped those units. This basin ranges in elevation from 8400 to 8600 ft (2560–2621 m). On either side of this valley are two

small ranges, formed from upthrown blocks of granite. There are at least nine distinctive geologic units, four of which are recent Quaternary alluviums, within the Woodland Park planning area. Limestone underlies a gravel conglomerate, both of which are located in the valley (or graben). Tertiary gravel deposits are located to the southwest of the city, along Highway 24, which leads toward the town of Divide. The majority of the planning area, within the Woodland Park city limits, lies in areas that have slopes of between 0% and 3%.

Woodland Park planning area lies at the divide of two separate drainage basins: the Arkansas River basin and the South Platte River basin. In the South Platte River basin, streams flow from the eastern and western hills onto the valley floor and thence north. Trout Creek is the only perennial flowing stream in Woodland Park. The streams flowing from the



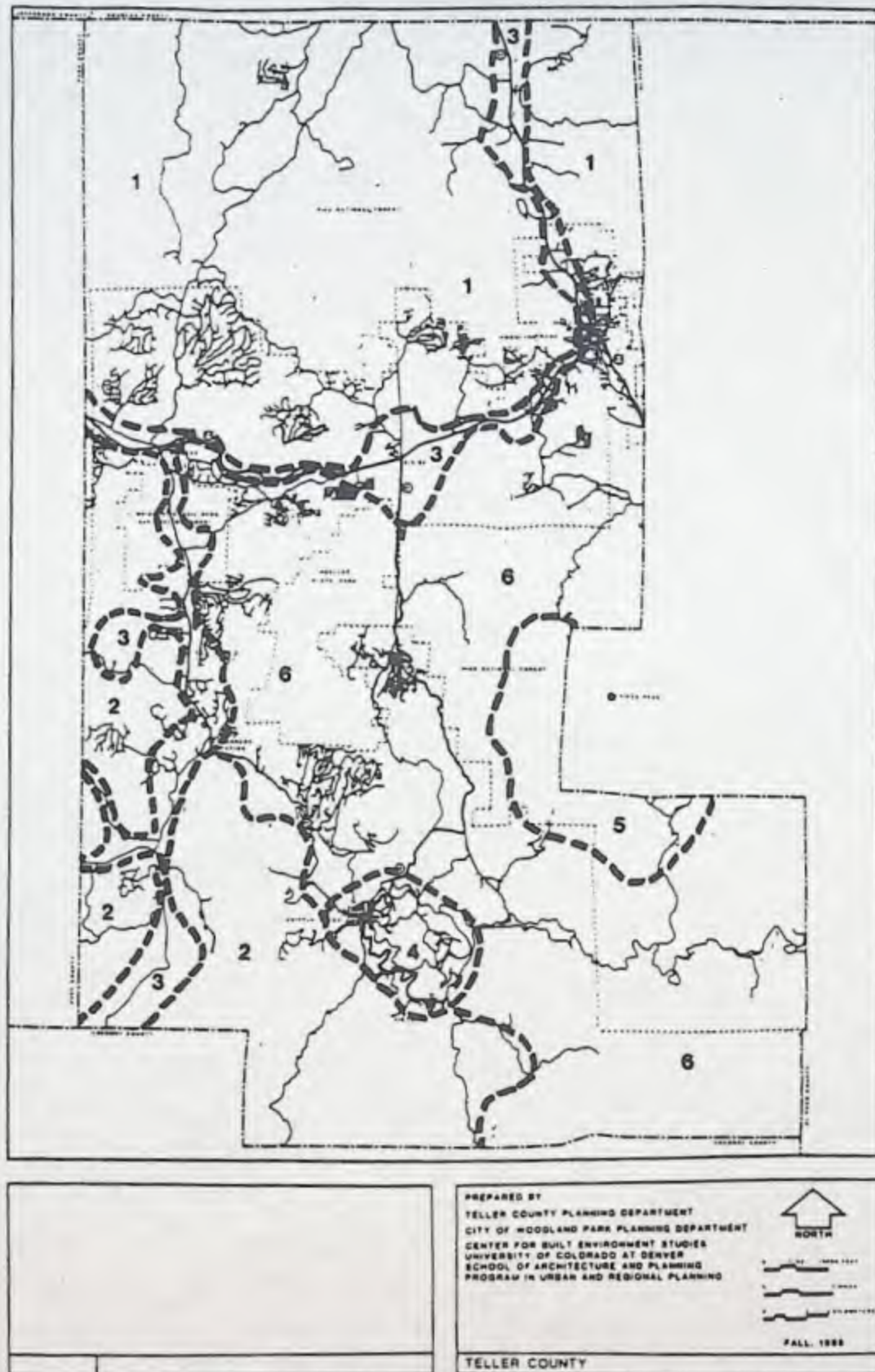


Figure 6 Landscape patterns of Teller County (adapted from Ansbro and others 1988, drawn by Joseph Bell).



western hills do not reach the valley floor. The Arkansas River basin is located to the south of Woodland Park and is greatly influenced by the presence of the Ute Pass fault zone. Stream patterns trend toward the zone and then follow it down the canyon.

The majority of the water supply for the City of Woodland Park comes from the Homestake pipeline, which serves Colorado Springs, but some of the water supply does come from aquifers within the area. The recent Quaternary alluviums supply around 15%–20% of the municipal water. The tertiary gravel also has water available, but it has not yet been significantly tapped.

There are two soil associations within Woodland Park planning area: one association, which is derived from the conglomerate geologic unit, comprises approximately 95% of the soils within the city limits; the other association is derived from the granite rock on the surrounding mountain ranges and makes up the remaining 5% of the soils within the city limits. Although the soils in the Woodland Park planning area are moderately erodible, the slope angles and lengths add greatly to the erosion potential. In addition, the soils are generally shallow in depth and fairly permeable, which creates problems for septic tank construction and use. The major portion of vegetation in Woodland Park consists of forests of ponderosa pine, Douglas fir, mixed pine and fir, or mountain grasslands. The grasslands parallel the major highways quite closely, with the forests covering the remaining portion of the growth area.

The Woodland Park planning area is comprised of land disturbed by human activity and undisturbed lands. Within the region's perimeter and including the national forest land, are large tracts of undeveloped land. Urban development and activity can decrease the quantity and quality of wildlife habitat. There are species of large mammals, many more species of small mammals, and a great variety of bird species that can be found in the Woodland Park planning area. Although there are no threatened or endangered species within the urban area of Woodland Park, the surrounding national forest does contain such species. Portions of the Woodland Park growth area, in the south and east, lie within elk winter habitat range. Changes resulting from human activity, such as forest clearing, draining of wetlands, diversion of water supplies, physical barriers, introduction of domestic predators (cats and dogs), harassment by people, and noise disturbance could have severe repercussions on not only the elk, but other animals as well.

#### An Analysis of Environmentally Sensitive Areas

Based on landscape inventory and mapping, envi-

ronmentally sensitive areas were identified at both the county and local levels. For the growth management planning process, this designation included geographical areas sensitive to development as well as those that presented potential human hazards. Sensitive areas contain natural resources that can be significantly degraded or lost as a result of uncontrolled or incompatible development (Pinelands Commission 1980). This designation was based on susceptibility to damage and scarcity within the county. Hazard areas present a potential danger to human life or property when development is located within these places. Areas designated as environmentally sensitive were recommended for open space preservation or for levels of development that would not impact sensitive resources. Overlay zones with specific restrictions were eventually developed (see following article). Environmentally sensitive areas include potentially active faults, steep slopes, flood plains, stream corridors, wetlands, alpine tundra, and high wildlife impact areas.

*Potentially active faults.* Several potentially active faults occur in Teller County. The Bergen Park, Colorado, seismograph station has detected several earthquakes thought to be located on these faults (Kirkham and Rogers 1981). Additionally, in 1979 an earthquake occurred on the Oil Creek Fault, with an epicenter very close to the Teller County community of Divide.

*Steep slopes.* Mountains and canyons predominate in Teller County; slopes frequently exceed 40%. These slopes present constraints for development, which can aggravate erosion and landslide potential. Although development may be physically possible, increased financial costs to alleviate these hazards, both for structures and for roads may be prohibitive.

*Flood plains.* The US Federal Emergency Management Agency (FEMA) (1988) has generally mapped flood-prone areas in Teller County. These are areas potentially inundated by a 100-yr flood. Specific 100-yr flood elevations have been determined along a few Teller County streams, but in most cases only general locations have been delineated. Flood-prone areas are not recommended for uses that are endangered by flooding. Preserving these zones serves the dual purposes of providing open space and preventing flood damage. Developments proposed within or close to the flood-prone areas will require further site investigation to define 100-yr flood elevations and flood plain boundaries.

*Stream corridors.* Because of their headwater location and limited precipitation input, streams in Teller County are uniformly small, with most average flows estimated at less than 30 cu ft/sec. Like wetlands, stream corridors serve several important functions



that are degraded by development. Riparian ecosystems occupy less than 2% of Colorado's total land area, yet 40% of the state's vertebrate species can be found in association with riparian areas (Colorado Division of Wildlife, no date). Plant and animal diversity is greater in this community than in any other in Colorado (Tremblay 1974). Vegetation in these corridors maintains bank stability and filters sediment and other pollutants from surface waters. Undeveloped stream corridors enhance the visual quality and recreational opportunity of nearby lands and developments. They also provide a link for wildlife movement between seasonal ranges, allowing animals to migrate and thereby use several habitats and ranges (Geist 1971, Ough and deVos 1984, cited in Cooperrider and others 1986). This can enhance the aggregate landscape carrying capacity over that of the individual unconnected habitat areas. Preservation of the relatively small land areas in stream corridors provides substantial benefits, maintaining important landscape processes without eliminating nearby development opportunities.

**Wetlands.** Wetlands occur in or adjacent to areas of standing water: lakes, reservoirs, ponds, and marshes. They are characterized by species and/or life forms different from that of the immediately surrounding nonriparian climax vegetation (Louie 1964). These areas are highly productive ecosystems, important for wildlife habitat, flood storage, aquifer recharge, and water quality maintenance. Nationally, wetland losses are estimated at 380,000–450,000 acres (153,900–182,250 ha) per year (Richter 1987, based on 1984 US Fish and Wildlife Service data). Wetland development potential is limited by surface water and highly organic, unstable soils. To maintain key functions, open space preservation is the most appropriate use for these areas. Unfortunately, peat soils are mined in some Teller County wetlands, an activity that aggravates erosion and sedimentation and reduces water quality.

**Alpine tundra.** Alpine tundra occurs at elevations above 11,500 ft (3800 m) in Teller County. In the extreme climatic conditions and short growing seasons of the alpine life zone, plant growth and soil development are invariably slow. These conditions retard recovery when vegetation is removed. Scars may persist for many years, presenting serious erosion and sedimentation potential. Because of the sensitivity and long recovery periods of alpine vegetation, the potential impacts from inappropriate practices are substantial.

**High wildlife impact.** Teller County habitat for various wildlife species has been mapped by the Colorado Division of Wildlife (no date). Individual species habitat maps were combined to form a composite map

of habitats with potential for severe impacts by development. Habitat designated high impact includes overall distributions of particularly scarce species, such as bald eagle, pronghorn, bear, mountain lion, and ptarmigan, and areas of concentrated use (such as winter range and calving areas) by sensitive but less scarce species such as bighorn sheep, elk, and mule deer. Roughly half the county acreage falls in this category; although complete exclusion of these lands from development is not considered feasible, prevention or minimization of wildlife impacts will be encouraged in planning land uses.

### Suitability Analyses

The most notable Teller County constraints are included on the map of environmentally sensitive areas (Figure 7). Opportunities are characteristics that make particular land uses attractive, appropriate, or feasible. Figure 8 identifies land characteristics that act as opportunities or constraints for each land use. A particular tract of land has an inherent level of suitability for any given land use. Suitability can be defined as a resource's intrinsic or natural ability to support different types of use, or the fitness of a given tract of land for a defined use (Food and Agriculture Organization of the United Nations 1977, Steiner 1983). Specific land characteristics can be considered constraints or opportunities for particular land uses; suitability is derived from the aggregation of individual landscape elements. Constraints are factors that make a contemplated use infeasible or that present prohibitively high costs for that use. Costs include social costs, such as water pollution or wildlife displacement, as well as economic costs, such as expenditures for construction.

The level of suitability can be determined by analyzing mapped information about landscape elements (geological formations, soil characteristics, flood plains, vegetation types, etc.). The relative importance of individual elements is ranked, based on the needs or requirements of specified land uses. Then the maps are superimposed and the total number of suitable categories that coincide at any given location are counted. The most suitable areas are those where the greatest number of suitable categories concur (see Hopkins 1977).

Four land uses were analyzed for Teller County at the request of local officials and citizens: rural residential, mining, recreation, and sanitary landfill (Ansbro and others 1988). Suitability analyses for another four land uses were conducted for the Woodland Park planning area: suburban residential, commercial, recreational, and light industrial (Bowie and others 1988). Figure 9 rates the suitability of the pertinent mapped



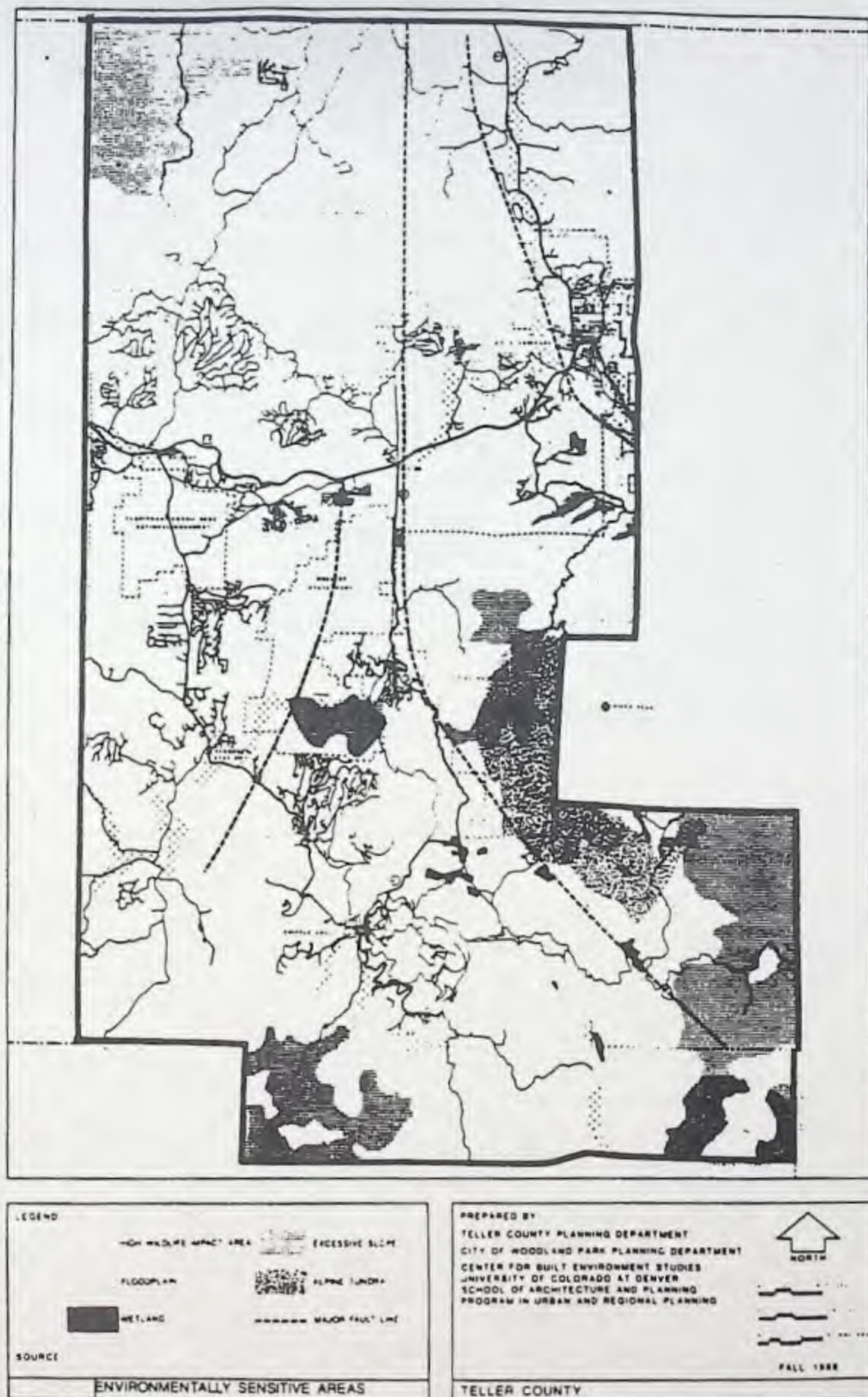


Figure 7. Notable environmentally sensitive areas (adapted from Ansbro and others 1988).



| LAND CHARACTERISTICS                   | LAND USE |            |           |           |        |             |
|----------------------------------------|----------|------------|-----------|-----------|--------|-------------|
|                                        | Landfill | Recreation |           | Mining    |        | Residential |
|                                        |          | Natural    | Developed | Hard Rock | Quarry |             |
| Porous or Fractured Bedrock            |          |            |           |           |        |             |
| Low Bedrock Permeability               |          |            |           |           |        |             |
| Rigid Bedrock w/High Bearing Strength  |          |            |           |           |        |             |
| Surface Outcrop                        |          |            |           |           |        |             |
| Economic Minerals                      |          |            |           |           |        |             |
| Faults                                 |          |            |           |           |        |             |
| 0-15% Slope                            |          |            |           |           |        |             |
| Over 15% Slope                         |          |            |           |           |        |             |
| Groundwater Available                  |          |            |           |           |        |             |
| Surface Water Available                |          |            |           |           |        |             |
| Stream Corridor 100' (30.5 Meters)     |          |            |           |           |        |             |
| Floodplain                             |          |            |           |           |        |             |
| High Water Table                       |          |            |           |           |        |             |
| High Soil Percolation                  |          |            |           |           |        |             |
| Moderate Soil Percolation              |          |            |           |           |        |             |
| Low Soil Percolation                   |          |            |           |           |        |             |
| Soil Depth less than 40" (101.6 cm)    |          |            |           |           |        |             |
| Soil Depth greater than 40" (101.6 cm) |          |            |           |           |        |             |
| Erosive Soil                           |          |            |           |           |        |             |
| Adequate Soil Bearing Capacity         |          |            |           |           |        |             |
| Forest Vegetation                      |          |            |           |           |        |             |
| Nonforest Vegetation                   |          |            |           |           |        |             |
| Riparian Vegetation                    |          |            |           |           |        |             |
| Diverse Vegetation                     |          |            |           |           |        |             |
| Valuable Wildlife Habitat              |          |            |           |           |        |             |
| Proximity to Developed Areas           |          |            |           |           |        |             |
| Isolation                              |          |            |           |           |        |             |
| Road Access                            |          |            |           |           |        |             |
| Sewage Treatment Available             |          |            |           |           |        |             |

## OPPORTUNITIES AND CONSTRAINTS

|                                                                                       |             |
|---------------------------------------------------------------------------------------|-------------|
|  | Opportunity |
|  | Constraint  |
|  | Neutral     |

Figure 8. Land characteristics that act as opportunities and constraints for development (adapted from Ansbro and others 1988 by Media and Telecommunications Division, Auraria Library, University of Colorado at Denver).

landscape information for the four Teller County land uses. To better understand the suitability analysis procedure, it is instructive to describe two land uses in more detail. As an example of the county-level suitability analysis, rural residential use will be discussed first and then a description of the recreation analysis for the Woodland Park planning area will follow.

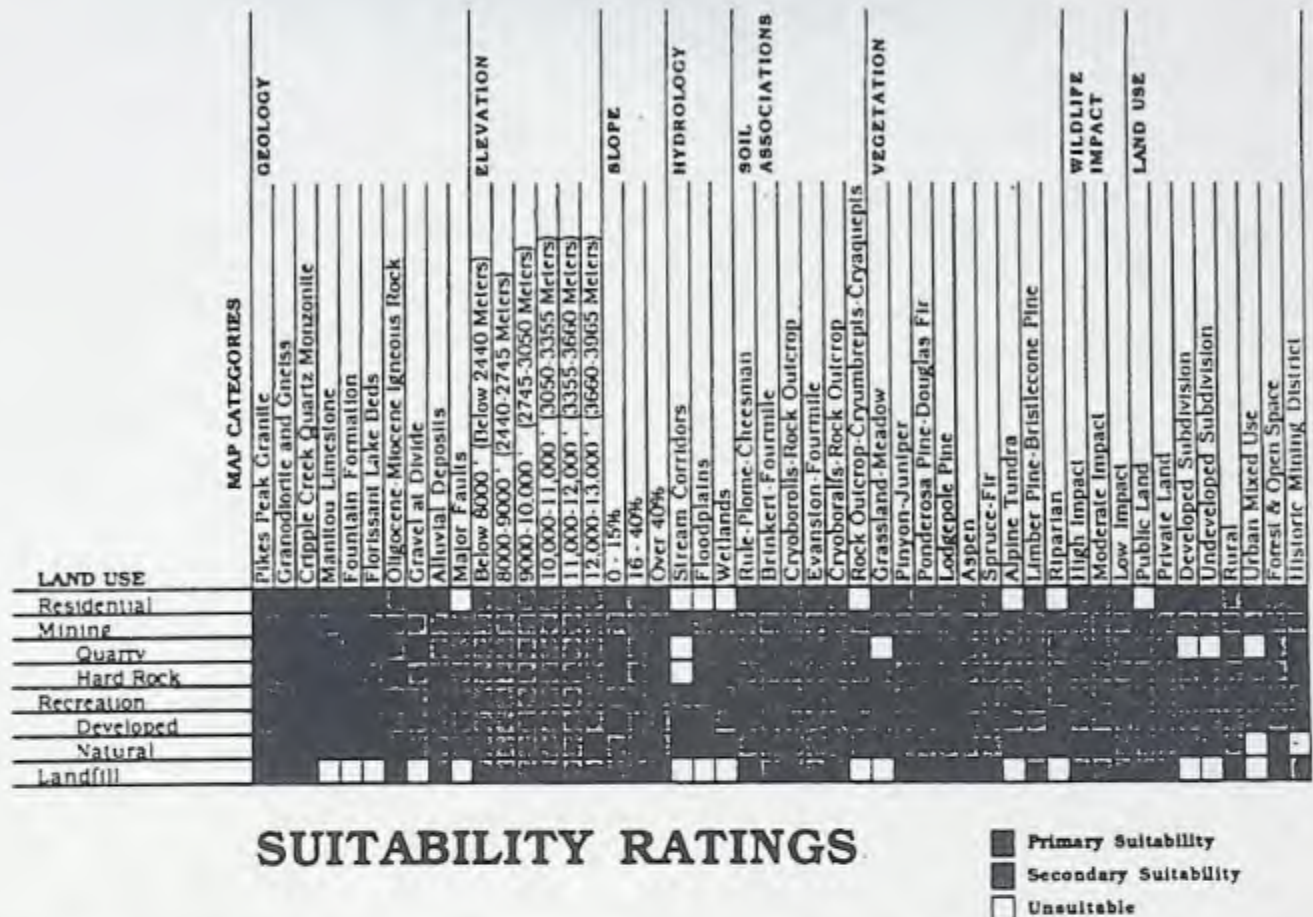
### Teller County Rural Residential Suitability

A large portion of Teller County lands could be considered marginally to moderately suitable for rural residential construction, although these lands have significant limiting characteristics. The economic and social costs of this development are considerably higher than those for development on more suitable locations. Thus this analysis seeks to identify the most suitable areas for rural residential development, and assumes that less suitable areas could possibly be used if

the developer or landowner spent more to respond to these limitations. Accordingly, only the resource categories of highest suitability are considered in the overlay process. The areas of highest composite suitability are those where several individual high suitability resource categories coincide.

Areas that exhibit characteristics considered to be constraints to development require more judicious analysis. The level of limitation must be considered. Those constraints with a high economic cost, such as steep slopes, may not preclude development entirely; if the area of steep slopes coincides with areas considered suitable, such as lack of wildlife impact or the existence of community services, then the degree to which it is unsuitable is lessened. More critical constraints are those that present a potential hazard to human safety (like flood plains and potentially active faults). These constraints in themselves are enough to make a site unsuitable for certain uses, such as rural





## SUITABILITY RATINGS

- Primary Suitability
- Secondary Suitability
- Unsuitable

Figure 9. Suitability rating for possible land uses (adapted from Ansbro and others 1988 by Media and Telecommunications Division, Auraria Library, University of Colorado at Denver).

residential, regardless of other characteristics of the site.

Teller County rural residential suitability analysis is based on seven landscape elements: geology, slope, surface water, soils, vegetation, wildlife, and existing land use in addition to the ownership of the land. The most suitable categories of each element, and the justifications for these evaluations, are as follows:

**Land ownership.** This was the "first-cut" criterion, eliminating the extensive public lands in Teller County because they are unavailable for rural residential use. Lands under private ownership were further analyzed.

**Geology.** The geological formations considered most suitable for residential use are the Florissant lake beds, the gravel at Divide, and alluvial deposits. These units tend to foster better soil development than the granitic rock which predominates in the county. Granitic rocks (Pikes Peak granite, Cripple Creek quartz monzonite, gneiss, and granodiorite) tend to have coarse, thin soils, which are potentially erodible and

excessively permeable so that effluent from septic tanks is not adequately filtered (Wav 1978, James Sole, Colorado Geological Survey, personal communication). Although this is a significant limitation, special septic system designs may be used that reduce the problem. Potentially active fault zones are considered unsuitable for development.

**Slope.** Slopes of less than 15% are considered the most suitable for rural residential use. Slopes of greater than 15% have significant limitations for septic tank use (Dunne and Leopold 1978, Wav 1978). Additionally, soil erosion potential increases with the relative steepness of slopes.

**Surface waters.** One-hundred-year flood plains, as identified by FEMA (US Federal Emergency Management Agency 1988), are unsuitable for buildings, although they can serve as open space within residential areas. Streams without FEMA-identified flood plains were not included in the overlay process because they occupy such a small area. However, because of their important functions (water quality, erosion control,



flood containment, wildlife habitat, and recreation), their limited extent, and their sensitivity to impacts, stream corridors are not suitable for residential land use. Preservation of 50-ft (15.3-m) -wide corridors on each side of the stream is recommended, to protect these important resources. Where streams occur within existing developments or areas of high rural residential suitability, homes and other buildings should be sited at least 100 ft (30.5 m) from stream banks. Even wider areas may be necessary where there are broad flood plains.

**Soils.** Three soil associations are considered most suitable for rural residential use: the Brinkert-Fourmile association, the Evanston-Fourmile association, and the Rule-Plome-Cheesman association. These soils occur in valleys and areas of gentle topography; they generally have fewer limitations, such as inadequate depth, frequent rock outcrops, and excessive percolation, than the other soil associations of the county (Heil and others 1977). The Rock Outcrop-Crym-brepts-Crvaquepts association, which occurs in the sensitive alpine tundra, is considered unsuitable for rural residential use.

**Vegetation.** Ponderosa pine, Douglas fir, and aspen forest are considered most suitable for rural residential use. Ponderosa pine-Douglas fir is the prevalent vegetation type in the county, and aspen is also extensive. Ponderosa pine is particularly well suited to rural residential use because of its typically open, parklike stands, which minimize the tree removal required for development and thereby help screen visual impacts. Aspen is an early successional species that can reestablish relatively quickly after disturbance; it is also a scenic amenity that screens visual impacts. Two scarce, sensitive vegetation types are considered unsuitable for development: alpine and riparian vegetation.

**Wildlife habitat.** Areas outside of high-impact wildlife habitat are considered most suitable for rural residential use. High-impact wildlife habitat areas considered suitable because of the combination of other resource categories received the appropriate suitability rating, but the high-impact potential was noted on the residential suitability map (Figure 10). Rural residential uses in these areas should be designed to minimize wildlife impact.

**Existing land use.** Because of the significant quantity of subdivided but unbuilt residential lots in Teller County, areas within existing subdivisions are considered most suitable for development. Roads and other facilities are already in place in these subdivisions, reducing the potential costs of development to the county.

Maps of each of these elements were superimposed,

and the areas where several suitable categories coincide were identified. Areas with five or six congruent factors were designated primary suitability areas; areas with three or four congruent factors were designated secondary suitability areas. Figure 10 shows the areas of primary and secondary rural residential suitability. This analysis is based on data that are sometimes broad and general. If more specific data are acquired, results can be improved, using a similar suitability analysis process. As is, these results give an initial indication of areas with an inherent suitability for rural residential use. These areas are likely to support higher densities of development, with lower environmental, social, and economic costs, than other areas of lower suitability.

### Woodland Park Planning Area Recreation Suitability

A more specific analysis similar to the county-wide analysis, was made for the Woodland Park planning area, which is the major growth node in the county. Those environmental factors deemed more significant for specific land uses received greater emphasis in the specific land-use suitability studies. Assessments of development suitability for recreation, suburban residential, commercial, and light industry land uses were made. The recreational suitability is described in more detail.

Five steps were identified in the recreational suitability analysis. These steps, sequenced in order of completion, are: summarize inventory information, define recreation uses, determine environmentally compatible factors, identify areas that exhibit the recreational-land-use compatibility factors, and compare areas that are highly suitable for recreation with analyses for other land uses.

The inventory information about the abiotic and biotic elements was summarized in a similar fashion to that of the whole county using cross sections (Figures 3-5) and identifying landscape patterns (Figure 6). Two general recreation activities for the Woodland Park planning area, active and passive, were defined. Active sports are team oriented, while passive recreation refers to individual activities.

The third step was to select environmental factors that complement the intended active and passive recreation land uses. The active recreation factors and their specific criteria include:

- physiography: slopes 0%-8%
- vegetation: mountain meadow, ponderosa pine, and Douglas fir



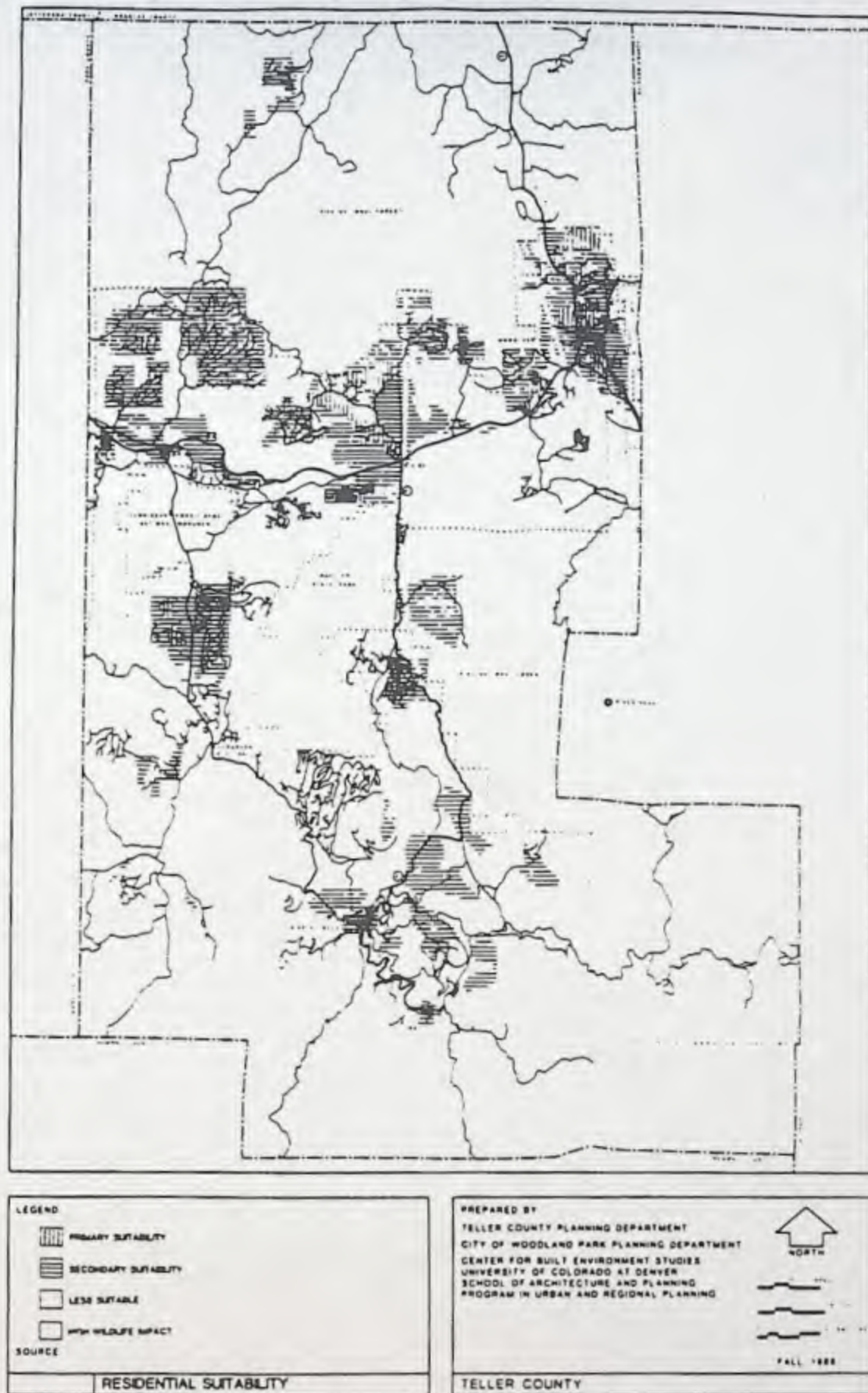


Figure 10. Teller County residential suitability (adapted from Ansburo and others 1988, drawn by Joseph Bell)



- wildlife: outside elk winter range
- sociocultural: public land ownership and land-parcel density of 1–15 per 40-acre (16.2-ha) land tract, and existing land uses including public and semipublic, and parks and recreation

Inventoried factors and their specific criteria chosen for passive recreation include:

- hydrology: third- and fourth-order streams, and 100-yr flood plain
- vegetation: aspen, Douglas fir, mountain meadow, and ponderosa pine
- wildlife: outside elk winter range
- sociocultural: public land ownership and land-parcel density of 1–15 per 40-acre (16.2-ha) tract, and existing land uses including vacant, agriculture, and forest

The fourth step in the analysis process was the identification of areas that exhibit complementary environmental factors for recreation land uses, using the map-overlay technique. In identifying areas suitable for recreation, a primary and secondary designation was used. Primary active and primary passive areas are required to show characteristics of all four factors and for that particular type of recreation activity. Secondary active and secondary passive areas must show characteristics of three of the four inventoried factors.

In the final step of the recreation suitability study, comparisons were made between areas suitable for recreation and the other three land-use suitability categories assessed for the Woodland Park planning area. The relationship between recreation, suburban residential, commercial, and light industry should be as functional and nonconflicting as possible. This is possible for the Woodland Park planning area. Active recreation is close to residential areas, while passive recreation areas are in the Pike National Forest, which comprises about one third of the planning area.

## Conclusions

The Teller County and the Woodland Park planning area ecological landscape inventories were a primary step in the growth management process. These inventories involved the data collection of both biophysical and built characteristics. At the county level, transect lines were drawn to further identify recurring landscape patterns. The data base allowed the identification of environmentally significant areas; these were considered sensitive to development because of biophysical features or perceived potential hazards to

human life. The county's environmentally sensitive areas include potentially active faults, steep slopes, flood plains, stream corridors, wetlands, alpine tundra, and areas with high potential for wildlife impacts. These all pose some constraints to development.

With a clear picture of landscape patterns in the county, suitability analyses for future land uses were conducted at both the county and local level. The analyses focused on those land uses identified as most anticipated for future growth. For the Woodland Park planning area, these were suburban residential, recreation, commercial, and light industry. At the county level, rural residential, recreation, mining, and sanitary landfill land-use suitabilities were analyzed. The "layering" of the individual landscape element maps showed the areas of primary and secondary suitability for the various land uses. These were considered opportunities for future development.

The recognition of opportunities and constraints to development is an important step towards meeting the goals of the Teller County/Woodland Park growth management plan. These goals reflect the concern of county residents for preserving its unique character and resources while providing for coordinated and timely future growth. The next step in the process is to forecast the extent of that growth, both in terms of population and structures. Once this is conceptualized, a plan that provides for the anticipated growth and meets the goals of the growth management plan can be created.

## Acknowledgments

This article was written by a team of students from the Program in Urban and Regional Planning, University of Colorado at Denver, in collaboration with a former member of the planning faculty and three local planners. Additional students who participated in background studies cited in the article include: Robert Bowie, Gretchen Schalte, Joseph Bell, Jim Estus, Jeff Hardcastle, Susan Maxberry, George Hernandez, John Ansbro, Maria Valdez, Michael Reis, Johnny Patta, Cathy Chin, Karen Karpowich, and Rita Gerou. Pam Erickson of the School of Architecture and Planning, University of Colorado at Denver, typed the many drafts that the authors prepared; Sasha Valdez of the Department of Planning, Arizona State University, prepared the final version. We appreciate their patience and diligence. We are grateful also for the comments and criticisms made on an earlier draft by Meir Gross, John Ahern, David E. Simcox, and Jon B. Burley.



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May 26, 1992

To: Deschutes Co. Board of Commissioners  
To: Deschutes Co. Planning Department

My name is Maret Pajutee and my address is P.O. Box 801 Sisters, OR. I am a biologist with a Masters Degree in Insect Physiology and Ecology. I have been the District Ecologist on the Sisters Ranger District, Deschutes National Forest for over 2 years.

I am here representing myself as a concerned citizen with ecological and resource management interests. I am also here as a member of the Alliance for Responsible Land Use in Deschutes Co. participating in the periodic review process.

My special area of concern in the Wildlife Review has been riparian / wetland areas. I have submitted 2 previous testimonies on this subject and heard many people express concern about the riparian ordinances at the April 22 hearing.

As I Riparian areas are the most critical wildlife habitats in Deschutes County. In a paper on the cumulative impacts in Riparian - Wetland Areas, included



as Appendix H, Coonquist and Brooks state "  
"Riparian areas, which encompass the 100yr flood-plain along waterways, and wetlands adjacent to waterways are among the most productive and valuable natural systems on earth (Hunt 1985), but many of these areas have been degraded or otherwise altered by human activities. The diversity and productivity of these systems are largely attributable to biotic and nutrient exchanges with aquatic and upland areas. Therefore, aquatic, wetland and upland areas generally form integrated ecosystems. (Hunt 1985). Degradation and/or fragmentation of one affects quality and functions of the others, which, in turn, affects the associated plant and wildlife communities, thereby preventing the productivity and value of these systems from being realized."

The information to do this job is here, in these documents and in the River Study but it has been filtered to produce the following confusing conclusion:

"... the identified consequences should be balanced so as to allow the conflicting uses but in a limited way so as to protect the resource to a desired extent."



What does this mean? How did someone reach this conclusion after reading the findings of the River Study or even the ESEE analysis. I do not believe the positive consequences of limiting conflict use with a minor negative consequence warrant such ambiguity.

-The issue here is habitat - Riparian + Wetland Habitat it surfaces in most of the wildlife sections as a component.

For instance in the Fish Habitat section, pg 4. it states "Rural residential development adjacent to streams and wetlands can cause conflict~~ing~~ by increasing the impermeable surfaces, increase in sewage runoff, disruption of natural hydro<sup>logical</sup> patterns, depletion of the water table and increased erosion" (sic.)

on pg 6 it states the county will notify ODFW concerning developmental proposals in the Flood plain zone, WA combining zone or along any designated river or stream -

but none of this information surfaces again in the Riparian/Wetland section or in sections on wildlife which depend on riparian areas: deer migration corridors, waterfowl habitat upland game birds, Fur bearers, foraging habitat for



4

Townsend's Bats and non-game wildlife  
How can fish habitat (i.e. riparian veg) be protected  
by a 3C designation but riparian/wetland  
areas protected by the ever ambiguous  
"consequences should be balanced to allow  
the conflicting uses but in a limited way  
in order to protect the resource to the desired  
extent." What does that mean??

I include as Appendix B a USDA publication  
called "Ethical Questions for Resource Managers"

The promised review of riparian protection  
ordinances (in 1994 on pg 2 in the Rip. sect / or 1993 in  
the Comp Plan Amendments" pleads for the statement  
from pg 29 of the Ethics pub

"Where information is lacking, margins of safety  
(similar to the engineers "factors of safety") should  
be used to preserve options and avoid  
large scale irreversible changes"

We can't afford to wait for a review in the  
future. Protection of these resources must be on-going  
in this period of rapid growth.

The citizens of Deschutes Co are growing more +  
more concerned about the way our county is



5  
being developed. This was evidenced by the recent primary election where a land use planning advocate actually won a race against developer wannabes.

The River Study pg 72 states the most preferred future land use preferred by citizens of De. Co was "Undeveloped land next to streams" 85% strongly supported zoning + building regulations concerning development along rivers

Please reconsider the confusing marching orders you are sending your planners.  
Unfilter the River Study and take its recommendations

In Appendix B pg 33 in an Essay on "The Moral Uses of Future Generations" the author asks 3 questions of wildlife policy-makers

"Do they know, to a significant degree, the consequences of their professional actions?"

"Must they in this work, choose among a set of exclusive options with variously foreseeable results?"



6  
and "Will these results variably affect the  
welfare and rights of present + future individuals?"

Since the answers to these questions are  
all yes he concludes we bear an  
inescapable burden of moral responsibility  
to the future.

Our quality of life rests in the quality of  
habitat.

Thank you for the opportunity to express  
my concerns

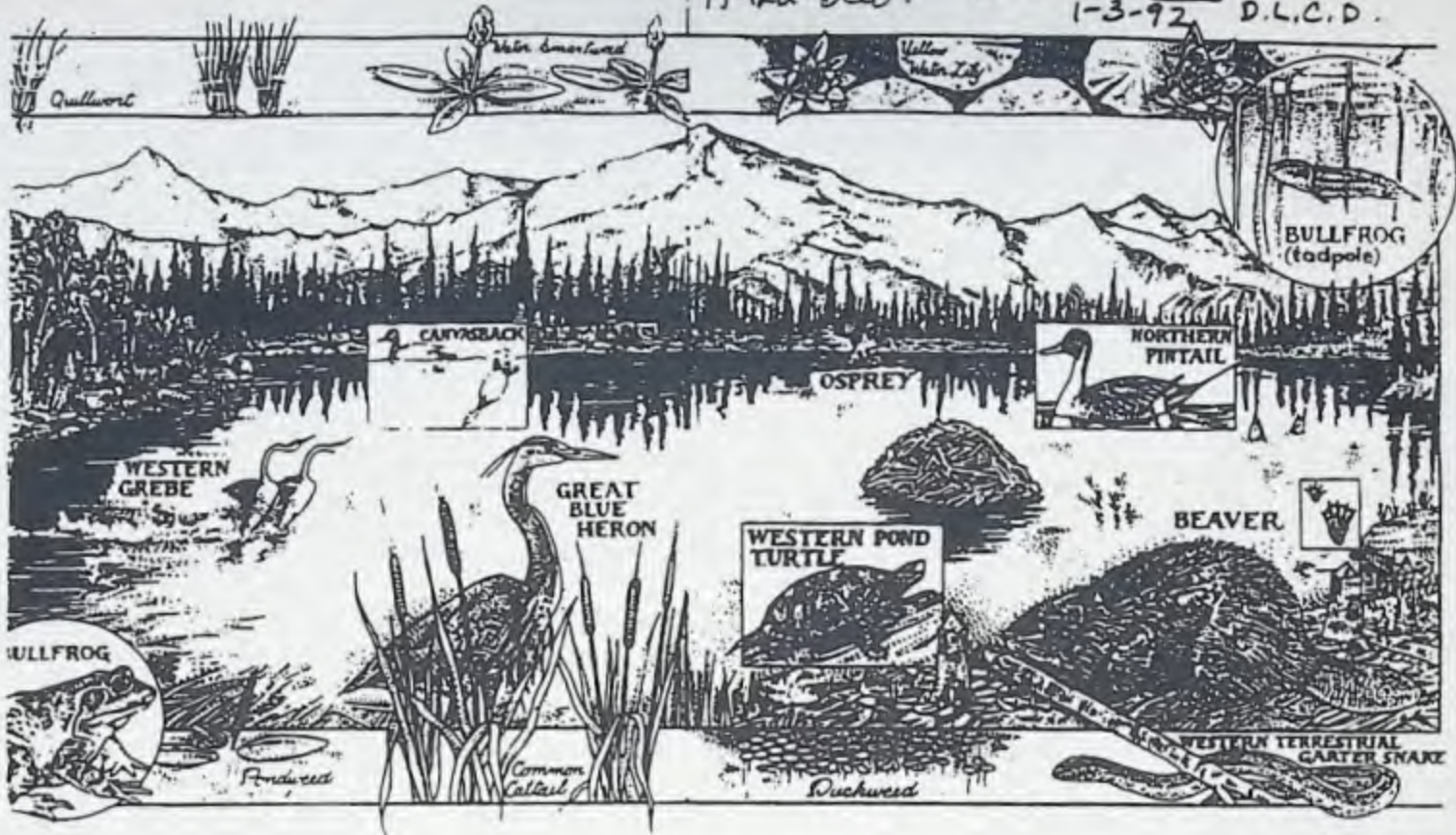
Mant Pajutee

Appendices not included with this copy



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1-3-92 D.L.C.D.



WILDLIFE PLAN AND  
ZONING AMENDMENTS

- Comment - Maret Pejutee

April 22, 1992



April 22, 1992

To: The Deschutes County Planning Commission  
To: The Deschutes County Planning Department

The policies of the Deschutes County Comprehensive Plan and the ordinances of the Wildlife Area Combining Zone are the practical implementation measures designed to carry out the Fish and Wildlife Goals of the County and State.

I am encouraged that attention has been given to sensitive birds and some large game habitats, however, I was alarmed to see that key elements of the ordinances and text concerning non-game wildlife and riparian habitat appear to have vanished from the revision.

It is contradictory to read goals of the plan such as "To conserve and protect existing fish and wildlife areas" and "To maintain wildlife diversity and habitats that support the wildlife diversity in the county" and then turn to the WA Zone and see it has been gutted of any mention of riparian areas.

As any biologist, bird watcher, or nature lover can tell you areas adjacent to water are the key habitat for supporting wildlife diversity.

I enclose as exhibit A a chapter on Riparian Zones from a classic wildlife management reference used by Federal biologist called "Wildlife Habitats in Managed Forests". It states on pg 41, "Wildlife use riparian zones disproportionately more than any other habitat", and states they are the most critical wildlife habitats.

The reasons why include: the presence of the components of wildlife habitat- food, water, and cover, their structural and vegetative diversity, edge effects, microclimates, migration pathways, and their function as landscape level habitat linkages.

They are vulnerable to disturbance and the chapter concludes with a "red flag" warning on pg 47 ... that riparian zones are sensitive to management activities and should be cautiously managed with consultation with a wildlife biologist.

This information meshes well with the excellent analysis of wildlife resources in the Deschutes County/City of Bend River Study, a document which no doubt cost tens of thousands of dollars to produce. I urge the County to use this document as it was intended. I quote from the preface on the purpose of the report: "it addresses the



existing information about, and recommends a management philosophy for, one of Deschutes County's major natural resources -- the Deschutes River System and it's waters". The enclosed map of the Upper Deschutes Drainage Basin encompasses watersheds from Crescent Lake to Camp Sherman. The River Study offers an in depth analysis of economic, social, environmental, and energy consequences associated with maintaining wildlife populations (included as exhibit B). I will quote from the Findings section 13-17:

"1) The wildlife resource along rivers and streams is diverse and is dependent upon minimizing or avoiding adverse impacts to their habitat.

2) Wildlife is subject to many forms of disturbance and harassment that have not been adequately mitigated.

3) Mule deer and Roosevelt elk have sensitive habitats associated with river and stream corridors.

4) Birdlife density and diversity is directly related to the presence of water.

5) Many raptors, including bald eagle, osprey, and golden eagle, are directly dependent upon the river and stream corridors for nesting, roosting, and feeding.

10) Wetlands and riparian areas support the greatest diversity and numbers of wildlife in the county.

11) The river and stream corridors and adjacent vegetation provides critical cover for wildlife movement and migration."

and the decision on pg 13-18 was to "Limit the conflicting use. In those reaches of river and stream corridors that have been identified as sensitive habitat for nesting, breeding, migration, or wintering land use activities/developments shall be modified in order to maintain wildlife populations".

As policies on pg 13-19 it states under "2) The County, ODFW, and USFS shall consider wetlands and riparian areas as sensitive wildlife habitat due to their scarcity and unique characteristics to serve a wide range of wildlife species and shall be protected."

With all this excellent information and clear direction I cannot understand what happened to the new WA zone ordinance. Riparian areas have been removed from the ordinance, the required consultation with ODFW has been deleted and all developmental restrictions have been lifted except for a 100 foot buffer strip.



I recently discovered the County has not been implementing the WA Zone Ordinance as it is written when I brought up the mandated riparian zone protection at a land use hearing and was stared at in disbelief by County planners. The currently existing ordinance reflects an understanding of the complexity and value of riparian habitats. The fact that the County has accidentally forgotten to enforce the ordinance for some time makes it easy to understand why it would be convenient to "lose" these passages.

However, it is imperative that riparian areas remain as they were intended in the WA Zone and that compliance with the ordinance resurface in planning decisions. It is imperative that wildlife experts such as ODFW be consulted when planning affects these habitats. Valuable direction in the River Study should be incorporated in the new ordinances.

I noticed that the discussion of non-game wildlife had also disappeared from the Resource Element rewrite. The discussion on pg 72 of the Resource Element states "the importance of non-game wildlife cannot be overemphasized". As this category includes most of our wildlife species including songbirds, amphibians, and small mammals I overemphasize to you... PLEASE reinstate non-game wildlife as worthy of discussion.

In conclusion, I reiterate my deep concern over the deletion of the most critical wildlife habitat -riparian zones from protection in the WA zone ordinance. I was hoping for a stronger ordinance, not a missing one. The tidbit offered under policy #10 in the Comprehensive Plan- that existing protection of riparian zones would be reviewed by committee in 1994 is no comfort...with this new ordinance there may be very little left to protect by 1994.

I will send a copy of my input to ODFW Non-game Biologist Chris Carey and I again urge the County to reconsider this disastrous deletion which violates goals for wildlife diversity and habitat in the Comprehensive Plan.

Thank you for the opportunity to share my comments,

*Maret Pajutee*  
Maret Pajutee  
P.O.Box 801  
Sisters, OR 97759



# **Wildlife Habitats in Managed Forests**

## **the Blue Mountains of Oregon and Washington**

Jack Ward Thomas  
Technical Editor

Agriculture Handbook No. 553

U.S. Department of Agriculture  
Forest Service

Published in cooperation with the  
Wildlife Management Institute  
Washington, D.C.  
and the  
U.S. Department of Interior  
Bureau of Land Management

September 1979



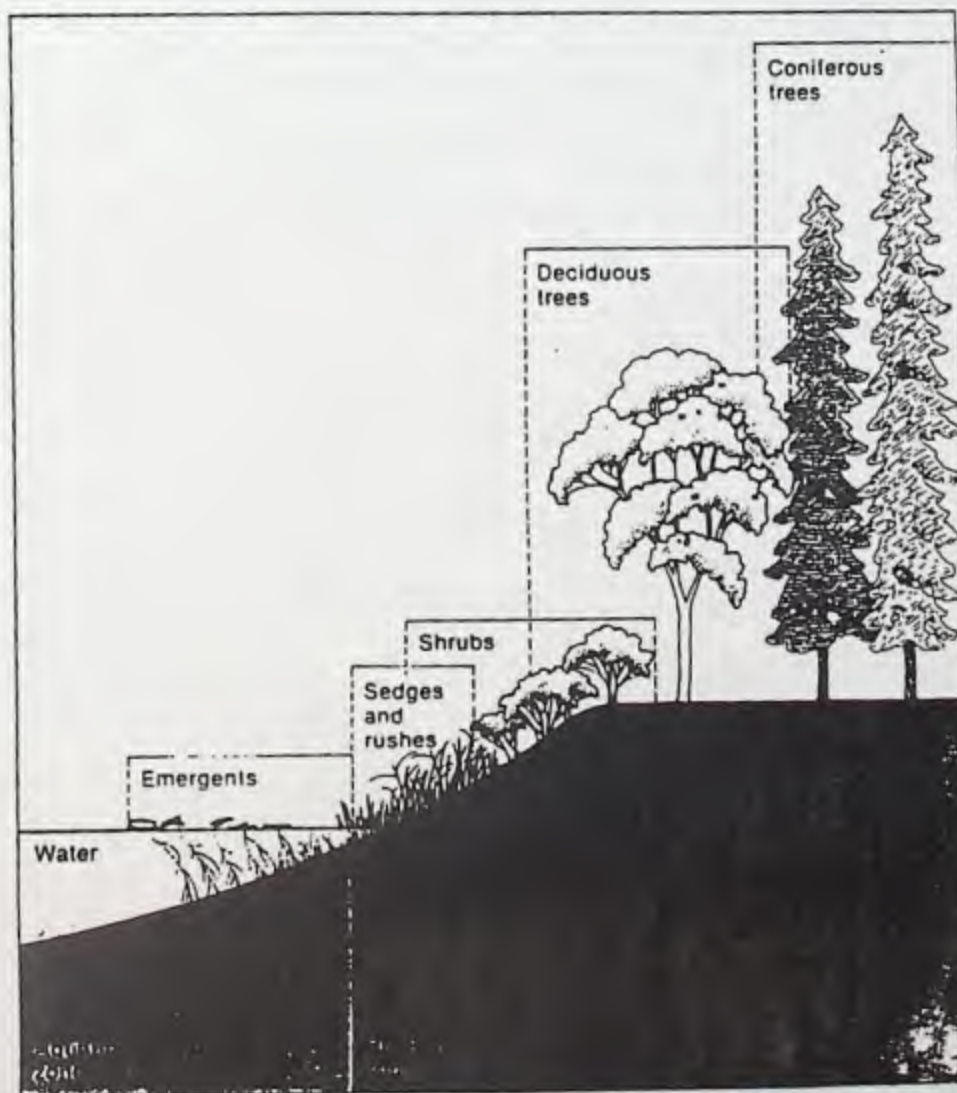
# 3

## Riparian Zones

by  
Jack Ward Thomas  
Chris Maser  
Jon E. Rodiek

Riparian zones can be identified by the presence of vegetation that requires free or unbound water or conditions that are more moist than normal (fig. 16) (Franklin and Dyrness 1973, Minore and Smith 1971). Riparian zones can vary considerably in size and vegetative complex because of the many combinations that can be created between water sources (fig. 17) and physical characteristics of a site. Such characteristics include gradient, aspect, topography, soil, type of stream bottom, water quality, elevation, and plant community (Odum 1971).

*Figure 16. Riparian zones are identified by the presence of vegetation requiring large amounts of free or unbound water.*





All riparian zones within forested areas of the Blue Mountains have these things in common: (1) they create well-defined habitat zones within the much drier surrounding areas; (2) they make up a minor proportion of the overall area; (3) they are generally more productive in terms of biomass—plant and animal—than the remainder of the area; and (4) they are a critical source of diversity within the forest ecosystem. Carothers and Johnson (1975) and Curtis and Ripley (1975) have prepared summary papers on the subject of riparian habitats as associated, respectively, with range and forest areas.

## Importance of Riparian Zones

Wildlife use riparian zones disproportionately more than any other type of habitat (Kelly et al. 1975; Bortolff 1974; Wooding 1973; Beidleman 1948, 1954). Of the 378 terrestrial species known to occur in the Blue Mountains, 285 are either directly dependent on riparian zones or utilize them more than other habitats. Vertebrates that either reproduce in water or feed in water are totally dependent on riparian and adjacent aquatic zones. In short, riparian zones are the most critical wildlife habitats in the Blue Mountains.

Riparian zones are also disproportionately important for other forest and range uses. Stream margins frequently contain highly productive timber sites. Cattle utilize the vegetation in riparian meadows more heavily than in other areas. The relatively gentle topography, particularly in mountainous areas, makes riparian zones attractive for road locations. Streams and rivers and their banks are also handy sources of rock for building roads. Recreationists concentrate their use in such areas. In addition, scenic values are often high. As a result, riparian zones are the most critical zones for multiple use planning in the Blue Mountains.

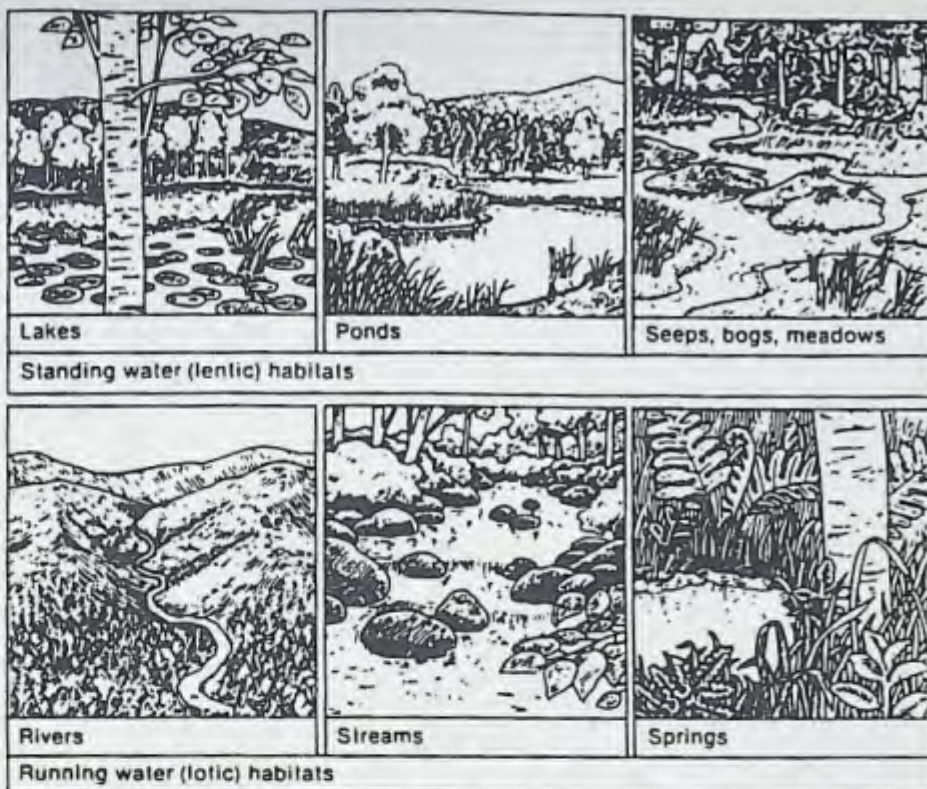


Figure 17. The type of water source influences riparian vegetation.

The Pacific treefrog is highly dependent on riparian zones as habitat for both feeding and reproduction.





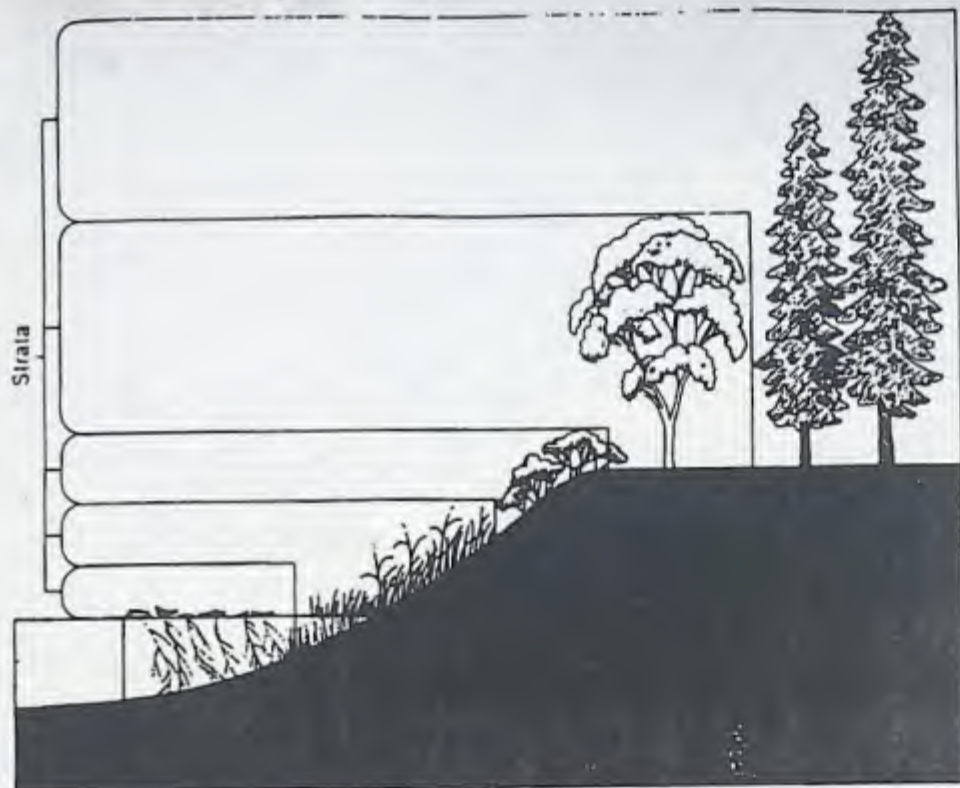


Figure 18. Riparian zones frequently have a high number of edges and strata in a comparatively small area. These produce habitat for a greater number of species, affecting the diversity of plant species and community structure.

The western grebe, a minor species in the Blue Mountains, is important because its population may be declining.



There are many reasons why riparian zones are so important to wildlife. Not all can be attributed to every riparian zone. Each combination of water source and site attributes must be considered separately. Some of these reasons are discussed below:

1. The presence of water lends importance to the zone. Wildlife habitat is composed of food, cover, and water. Riparian zones offer one of these critical habitat components and often all three.

2. The greater availability of water to plants, frequently in combination with deeper soils, increases plant biomass production and provides a suitable site for plants that are limited elsewhere by inadequate water (Minore and Smith 1971, Minor 1970). These factors, in combination, lead to increased diversity of plant species and structural diversity in the community.

3. The dramatic contrasts of the plant complex of the riparian zone with the general surrounding upland forest vegetation add to the structural diversity of the area. For example, open wet meadows and groves of deciduous trees around seeps provide edges with stark contrast when they are surrounded by coniferous forest. Moreover, those riparian zones dominated by deciduous vegetation provide one type of habitat during the summer when in full leaf and another type of habitat during the winter following leaf fall.

4. The shape of many riparian zones, particularly the linear nature of streams, maximizes the development of edge which is so productive of wildlife (Bottorff 1974, Patton 1975).



5. Riparian zones in coniferous forests frequently produce more edges within a small area than would be expected (fig. 18). In addition, there are many vegetative strata exposed in stair-step fashion. This stair-stepping of vegetation of contrasting form (deciduous vs. coniferous; shrubs vs. trees) provides diverse nesting and feeding opportunities for wildlife—especially birds and bats. The association of particular birds with distinct layers of vegetation has been repeatedly demonstrated (Lack 1933, MacArthur et al. 1962, Dambach 1944, Preston and Norris 1947, Thomas et al. 1977, DeGraaf et al. 1975). In addition, birds have been shown to select between coniferous and deciduous vegetative volumes in distinct strata (Thomas 1973, DeGraaf 1976).

6. The microclimate of riparian zones is different from that of the surrounding coniferous forest because of increased humidity, a higher rate of transpiration, more shade, and increased air movement. Some wildlife species are attracted to this microclimate. For example, elk on a Blue Mountain summer range spent 40 percent of their time in riparian zones which made up only 7 percent of the area (Pedersen, unpublished, see "References Cited"). The attraction of elk to these areas was caused by the abundance of thermal cover and the microclimate produced by that vegetation.

7. Riparian zones along intermittent and permanent streams and rivers provide migration routes for wildlife such as birds, bats, deer, and elk. Deer and elk frequently use such areas as travel corridors between high elevation summer ranges and low elevation winter ranges (fig. 19).



Figure 19. Riparian zones along rivers and streams are frequently used as migration routes by wildlife. A migration corridor used by elk between summer range at high elevation and winter range at low elevation is illustrated.

Riparian zones are disproportionately important for some wide-ranging species such as elk.



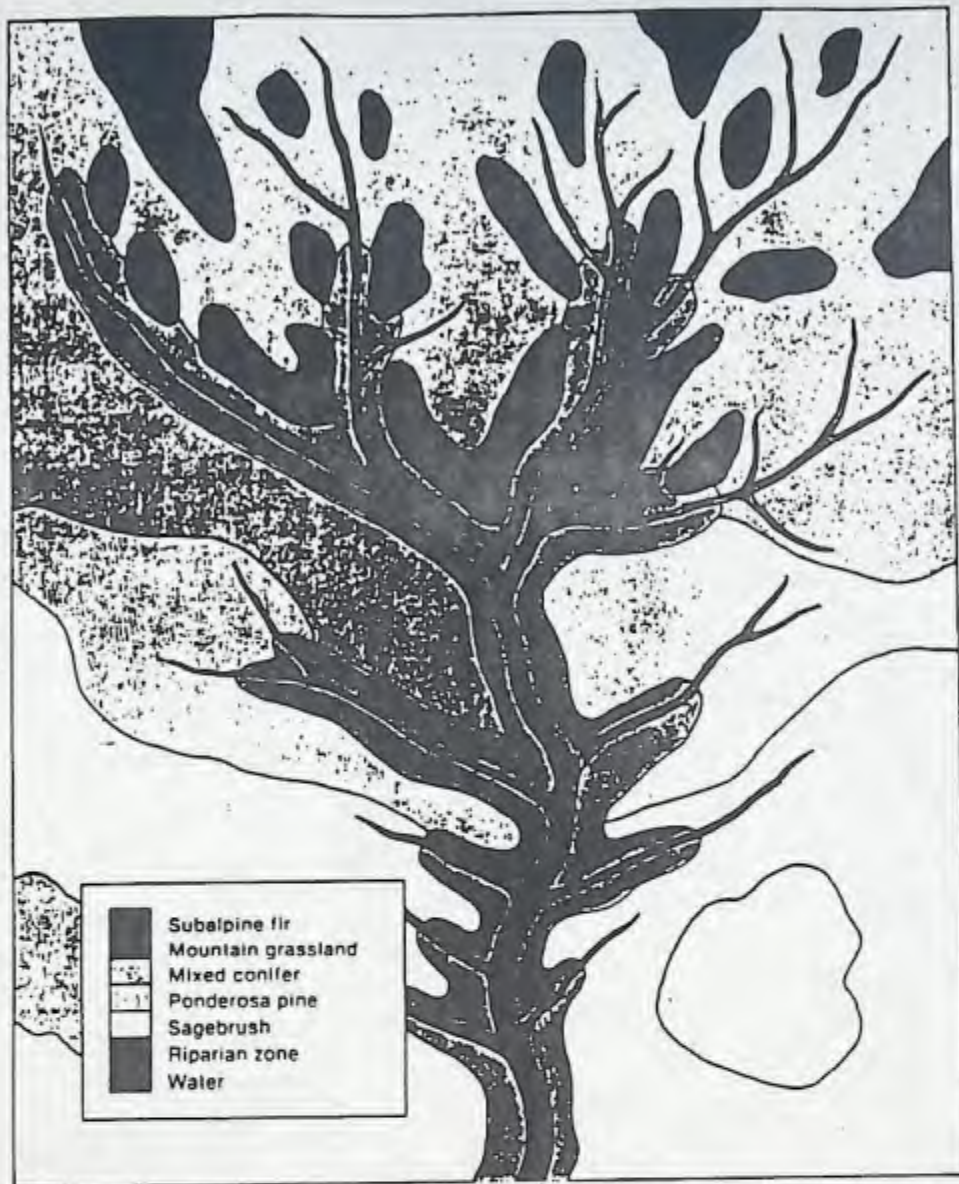


Figure 20. Riparian zones along rivers and streams serve as connectors between habitat types; they provide cover, food, and water as the animals move from one location to another.

8. Riparian zones, particularly along rivers and streams, may serve as forested connectors between forested habitats. Wildlife may use such riparian zones for cover while traveling across otherwise unfor-ested areas. Some species, especially small mammals and birds, may use such routes in dispersal from their original habitats. This may be caused by population pressure or by shortages of food, water, or cover. The riparian zones provide cover and often provide food and water during such movements (fig. 20).

### Sensitivity to Disturbance

Riparian zones occupy relatively small areas and should be considered vulnerable to severe alteration. Because of the distinct vegetative community and the structure of riparian zones, they must also be considered fragile. The more mature the vegetative complex of the riparian zone, the more apt it is to assume distinct edges and strata that intensify edge-effect and increase diversity. This mature condition is sensitive to management activities that occur in the riparian zone itself or in the surrounding conifer forest (fig. 21).

The sensitivity of the vegetatively mature riparian zone as wildlife habitat can also be attributed to its distinct microclimate. This includes both the terrestrial portions of the riparian zone and the characteristics of water quality, including temperature, of the associated aquatic zone. Changes in the canopy cover can alter these characteristics markedly (Meehan 1970, Brown et al. 1971, Brown and Krygier 1967). For example, an increase of a few degrees in water temperature may eliminate a stream as a trout fishery.



## Management Considerations

Riparian zones are so different from one another that specific animal-to-habitat relationships are difficult to develop for these areas. Forest land managers should consult both fishery and wildlife biologists when management activities are planned within the riparian zone. The following considerations can be helpful:

1. Road construction in riparian zones will reduce the effectiveness of the zone as habitat for many wildlife species (fig. 22). This results from alteration in the vegetative complex and increased disturbance from traffic along the road. Increased sedimentation from road construction may be detrimental to water quality and hence to aquatic life. Many streams in the Blue Mountains are already paralleled by roads. Each time a new streamside road is considered, managers need to determine how much riparian habitat is already seriously impaired by such roads. This can be done by comparing the percent of streams with roads alongside with the percent of streams without roads. Road construction probably has a more critical and long-lasting impact on riparian zones than any other management activity.

2. The narrower the riparian zone the more easily it is altered by management action.

3. Construction of campgrounds in riparian zones enhances the opportunity for human-wildlife contacts but simultaneously decreases effectiveness of the riparian zone as wildlife habitat because of disturbance caused by humans, trampling, soil erosion and compaction, and loss of vegetation (Settergren 1977).

4. Improper grazing practices in riparian zones can reduce water quality, eliminate streamside shrubs, cause soil compaction, accelerate erosion, and break down streambanks (Marcuson [1977], Ames 1977). Proper grazing management should include particular attention to insuring the welfare of riparian zones.

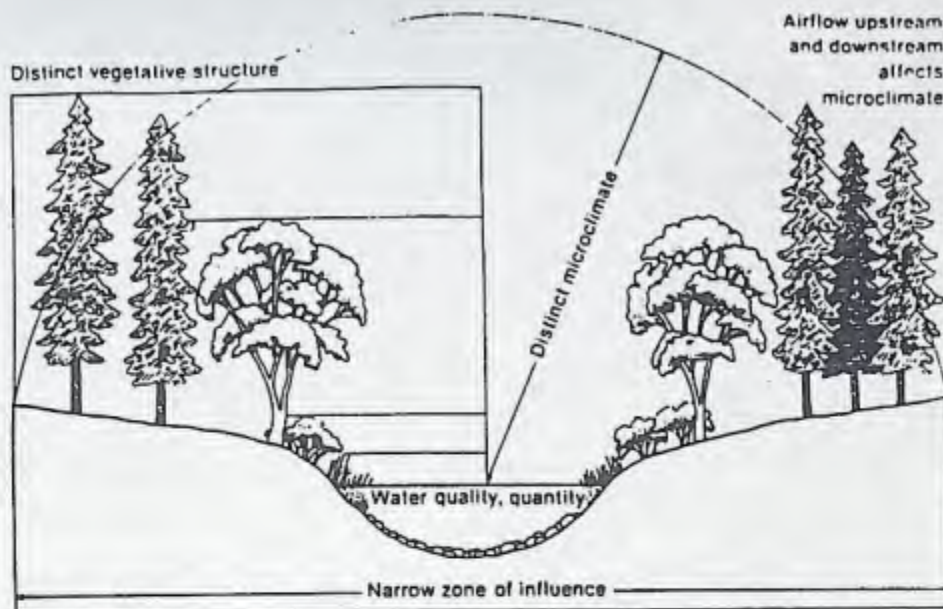


Figure 21. A combination of factors makes riparian zones especially sensitive to management activities.

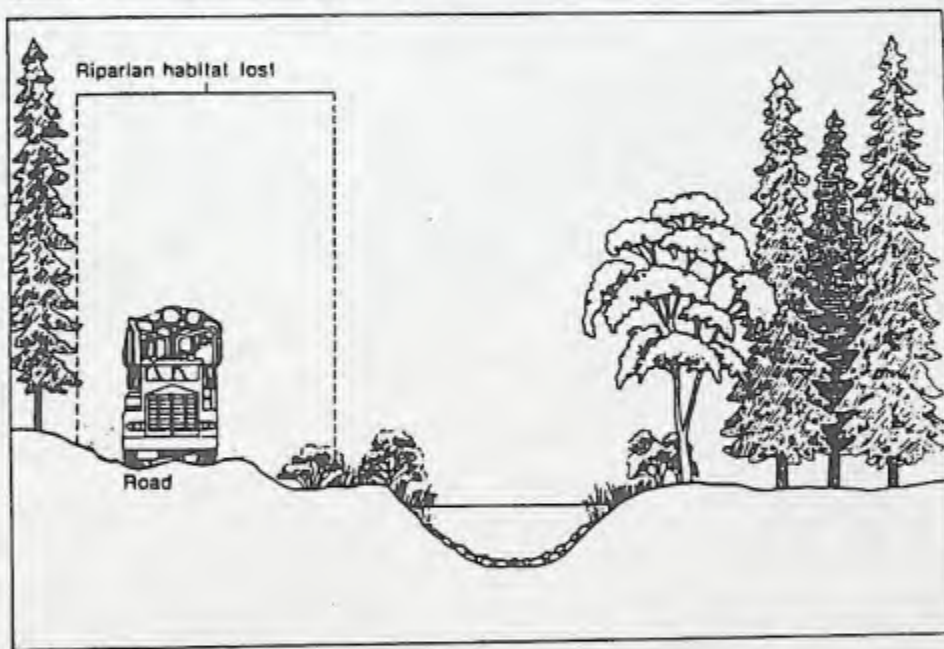


Figure 22. Road construction in riparian zones reduces their usefulness as wildlife habitat. Roads in riparian zones: (1) alter vegetative structure, (2) alter microclimate, (3) reduce the size of riparian zones, (4) disturb the wildlife, (5) impact water quality in the aquatic zone, and (6) destroy the wildlife habitat.





5. If logging is planned in riparian zones, the environmental impacts should be carefully evaluated. The more dramatic type of regeneration cuts—clearcutting, shelterwood, and seed tree—will have more impact than single tree selection and group selection harvests (fig. 23). Removal of significant amounts of canopy cover results in increased solar radiation reaching the ground or water surface. This in turn affects microclimate and stream temperature. By using the group and single tree selection harvest methods, it may be possible to cut some timber in riparian zones and still retain the integrity and function of the zone as wildlife habitat. The closer logging is to a riparian zone, the more severe the erosion impacts and the greater the danger of reducing water quality in associated aquatic zones.

6. Man-caused debris should usually be removed, but the watercourse should not be overcleaned. Debris existing prior to disturbance by management activities might be left intact since it sometimes serves as a critical habitat component for reproduction of reptiles and amphibians. Other semiaquatic species use such debris for resting and entry into and exit from the water.

7. Recreational use of the riparian zone is many times that of other habitats (North Central Forest Experiment Station 1977). The impact of such use on wildlife varies with the season and with the type, intensity, and duration of use. Construction of trails, picnic tables, and docks encourages recreational use and increases conflict with wildlife. Alternatives should be carefully evaluated. Recreational use may also reduce water quality because of proliferation of human wastes (Aitchison et al. 1977).



*The long bill of the common snipe is a special adaptation for probing in wet soil. The bird nests in marshes, bogs, and wet meadows.*



8. Timber management activities that take place outside the riparian zone may also affect the quantity and quality of water that enters and influences the riparian zone and associated aquatic habitats (Environmental Protection Agency 1976). Such activities may change suspended solids, nutrients, electrical conductance, and mineral content as well as water temperature and volume (Snyder et al. 1975, Sharpe 1975).

## A "Red Flag" for Riparian Zones

The riparian zone is the most important type of wildlife habitat in the Blue Mountains. It is also the area of maximum potential conflict between users of timber, grazing, recreation, water, and wildlife resources. Riparian zones are usually quite sensitive to management activities and should be cautiously managed. As each riparian zone is somewhat different, the land manager should consult a wildlife biologist and a fishery biologist during the planning process. The purpose of this chapter has been to raise a "red flag" where riparian zones are concerned. Habitat alterations will affect wildlife far more than indicated by the proportion of the total area disturbed.

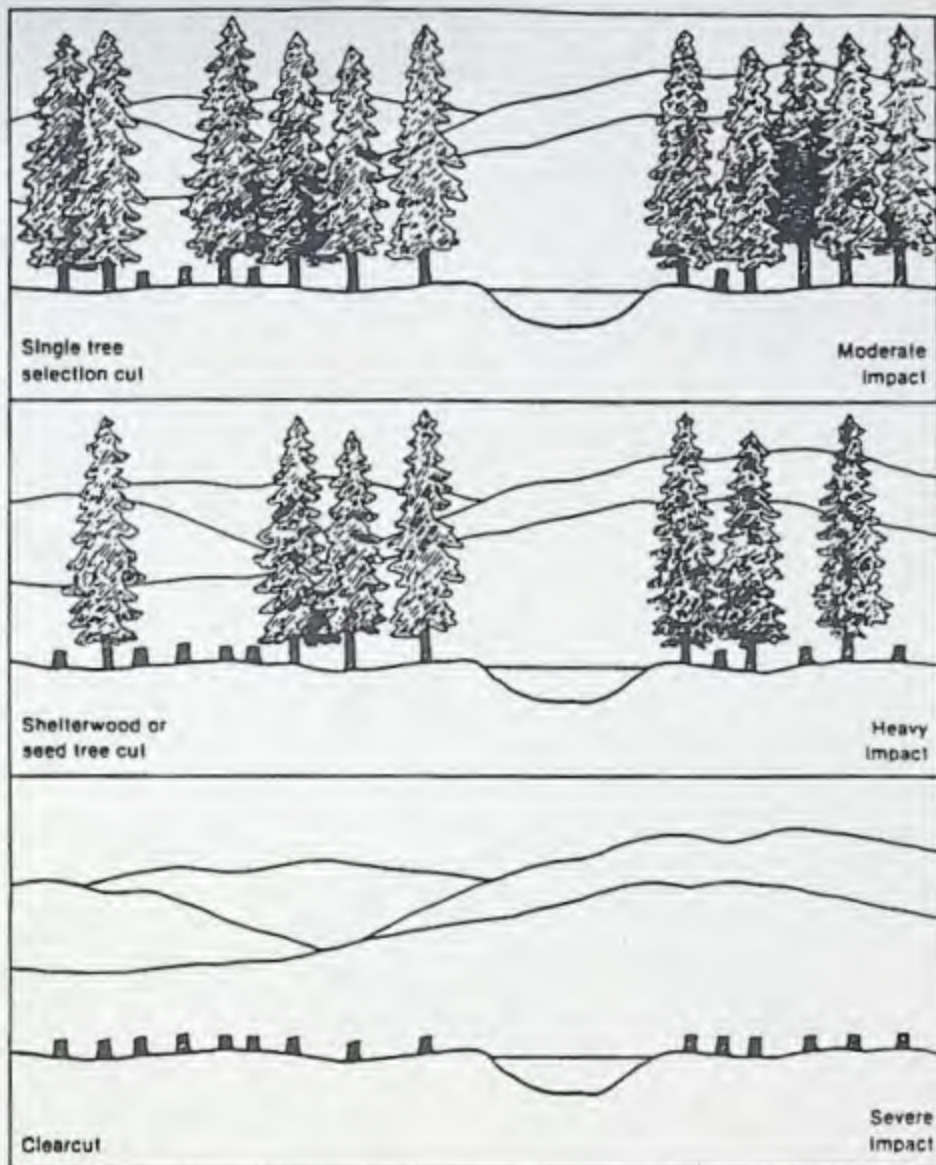


Figure 23. When timber is cut in riparian zones, environmental impacts should be carefully evaluated.

In the Blue Mountains, the raccoon is highly dependent on riparian zones.



## WILDLIFE CONSEQUENCES

### Economic:

The conflicts dealing with harassment and unintentional disturbance can only be partially addressed through the land use planning process. Although inappropriate development activities have been a major issue adversely affecting wildlife, educating people as to the consequences of their actions is an important remedial action. 26/ Limiting further rural subdivision, land partitioning, and land development would curb further intrusion on wildlife habitat. Both developers and buyers may be adversely affected by limitations on further development. However, based on a study conducted by Oregon State University Extension Service for Klamath County, preventing further rural residential development would have a positive economic impact on the county since public services in these areas tends to be higher per capita than in the more developed urban and rural service centers. 27/

Given the large percentage of residents and visitors that view or study wildlife as a recreation activity (40 percent and 21 percent, respectively). 28/ expenditures associated with these activities are probably significant. Nonconsumptive use of wildlife is thought to have a greater economic impact than the more commonly thought of consumptive uses such as hunting and trapping, which alone generated about \$4 million (1980 dollars) to the Deschutes County economy. 29/ 30/ According to the Ragatz (1985) survey, 49 percent of county residents surveyed hunt as part of their recreation activities. 31/

Preserving riparian habitat, critical nesting, wintering, and migration areas will, collectively, maintain wildlife populations. Given increasing trends in use, however, it may be necessary to take more positive action with respect to enhancing wildlife populations to meet future needs.

Limiting the loss of snags and other trees used for nesting may have an impact on the timber industry where restrictions limit the cutting of timber; however, this must be weighed against the nonmonetary values people assign to the enjoyment of wildlife.

### Social:

Maintaining wildlife populations of the area is critical for providing the customary opportunities for enjoying wildlife to the residents of Deschutes County.

There are no significant social consequences to maintaining wildlife that would be considered adverse.



Environmental:

The benefits to wildlife by maintaining their habitat are obvious. Other benefits that will result by maintaining these habitats include 1) the maintenance of undeveloped river corridors and scenic values, and 2) enhancement of the fish resource (by maintaining riparian vegetation which will decrease bank erosion and improve the food chain support of the aquatic ecosystem).

Energy:

Maintaining wildlife populations means that residents (and visitors, in some cases) will not have to drive to some further location where the wildlife have not been displaced due to loss of habitat.



In the state parks, the consequences of allowing the identified conflicts may diminish the quality of the recreation experience now enjoyed by visitors and residents. By limiting/prohibiting conflicting uses, the quality of the parks will be preserved.

#### Environmental:

Having more river and stream corridors in public ownership would enhance the environment by limiting the extent and level of development that can take place. This would minimize disturbance of wildlife and maintain the scenic value of the land. However, having increased public ownership entails more use by the public and conceivably, more damage (vandalism, etc.).

Wildlife are critically dependent on the river corridors for nesting, feeding, and migration. Both elk and deer wintering range extend within the Bend urban growth boundary and many furbearers spend their entire life within these riparian areas. Different wildlife species have different levels of tolerance; some species may be displaced altogether from an area if their tolerance level is exceeded. In general, most wildlife are sensitive to certain types or levels of human development/activities, including recreation. Leaving these riparian lands in open space (i.e., undeveloped) may provide the greatest net benefit to wildlife but would be no guarantee that people will be able to continue to enjoy viewing wildlife (or knowing that they exist) as much as always, given projections of future population growth.

In the state parks, allowing the conflicting uses may cause visual pollution and, in the case of Tumalo, noise and air pollution due to the activities of surface mining.

#### Energy:

More undeveloped land next to rivers and streams available to the public near the Bend, Redmond, and Sisters urban areas would minimize the transportation and gasoline expenditures by the public, thus lowering the public's recreation expense.

In the state parks, allowing conflicting uses may have an impact by creating a situation where people will drive further to enjoy a recreational experience similar to the level prior to the conflicting use being allowed.



## FINDINGS

### Wildlife

1. The wildlife resource along rivers and streams is diverse and is dependent upon minimizing or avoiding adverse impacts to their habitat.
2. Wildlife is subject to many forms of disturbance and harassment that have not been adequately mitigated.
3. Mule deer and Roosevelt elk have sensitive habitats associated with the river and stream corridors.
4. Birdlife density and diversity is directly related to the presence of water.
5. Many raptors, including bald eagle, osprey, and golden eagle, are directly dependent upon the river and stream corridors for nesting, roosting, and feeding.
6. With the exception of osprey, raptor populations are decreasing.
7. Development along the rims can disrupt the nesting success of raptors.
8. Snags and mature timber are important for providing nesting for raptors and cavity dwellers.
9. Water-associated birds and furbearers are adversely affected by fluctuating water levels.
10. Wetlands and riparian areas support the greatest diversity and numbers of wildlife in the county.
11. The river and stream corridors and adjacent vegetation provides critical cover for wildlife movement and migration.
12. Consolidating ownership of public lands or acquiring key private lands can minimize disturbance and harassment of wildlife and aid in the migration of deer, elk, and other wildlife.



## DECISION

### Wildlife

Decision: Limit the conflicting use.

In those reaches of river and stream corridors that have been identified as sensitive habitat for nesting, breeding, migration, or wintering, land use activities/developments shall be modified in order to maintain wildlife populations.

In those reaches of river and stream corridors that have been developed, approved permitted activities may continue.



## GOALS AND POLICIES

### Wildlife

#### GOAL

- A. Ensure the long-term protection and enjoyment of wildlife, considering both animal needs (with special attention to sensitive habitat) and compatible public recreation and land use development.

#### Policies:

1. The County, in cooperation with the Oregon Department of Fish and Wildlife (ODFW) and U.S. Forest Service (USFS), shall adjust land use practices and consider acquiring land or development rights where conflicts arise with any of the following:
  - a) Sensitive wildlife habitats necessary for feeding, nesting, reproduction, or rearing.
  - b) Sensitive elk and deer winter range habitat.
  - c) Sensitive elk and deer migration corridors.
2. The County, ODFW, and USFS shall consider wetlands and riparian areas as sensitive wildlife habitat due to their scarcity and unique characteristics to serve a wide range of wildlife species and shall be protected.
3. The County should support periodic or seasonal closures of roads, trails, or areas in sensitive wildlife areas to motorized vehicles. The County should also request the USFS to continue to support these closures in order to minimize human disturbance.
4. The County, in conjunction with the USFS and ODFW, shall protect and enhance lands containing sensitive wildlife habitat.
5. The County should support the closure of the Sheep Springs area to hunting during the bald eagle migration and feeding period.
6. The County and City of Bend shall promote or support educational programs such as those that could be presented by the Oregon High Desert Museum, Sunriver Nature Center, Lava Lands Visitor Center, Inn of the Seventh Mountain, Oregon Hunter's Association, Bend Metro Parks and Recreation District, and the local



media on river maintenance and courtesies, impacts of habitat alteration, and habitat disturbance by domestic animals and human activities.

7. The County and City should request that the USFS and ODFW adopt a winter elk management plan for the Benham Falls elk herd. Emphasis should be given to identification of sensitive habitat in order to minimize potential conflict with residential and resort development and recreation activities.
8. The County should support the continued consumptive and nonconsumptive use of wildlife.
9. The County should support efforts by local conservation clubs to develop a waterfowl and wetlands habitat improvement program along the Deschutes River.
10. The County should work with citizens, the Department of Forestry, USFS, and private landholders to adopt forest management practices along rivers and streams that consider the needs of wildlife by means including, but not limited to, preserving snags, riparian cover, and other habitat characteristics that will maintain optimal use by wildlife. Desired changes in habitat conditions resulting from forest management practices should concurrently avoid adverse impacts to water quality and visual quality for the specific reach.
11. The County shall continue to use conservation easements as a means to preserve wildlife habitat.
12. The County shall adopt regulations pertaining to fill-and-removal of material in waterways and adjacent wetlands. The County shall request that ODFW report all fill-and-removal violations to the County and the Division of State Lands. No modification/alteration of any streambank or wetland contiguous to the riparian zone shall be allowed unless it can be demonstrated that 1) the action, alone or in combination with other actions of a similar nature, will not have an adverse impact on maintaining either existing wildlife populations or the integrity of the affected habitat, and 2) there are no practical alternatives. Modification/alteration of these areas may only be permitted in unique situations and after consultation with the Oregon Department of Fish and Wildlife. Public and private bridges, roads, and utilities that have a demonstrated need may be allowed.



*note:*

*This copy omits  
some exhibits included in the  
Original to Blosser/Benner.*

## EXHIBIT "L"

G-12905  
ARLU-DeCo.  
6-29-93  
(9 PAGES)

May 31, 1993

To: Richard Benner, Director DLCD  
Doug White, Reviewer DLCD  
George Reed, Planning Director, Deschutes County

Re: Deschutes County Periodic Review Report by DLCD  
**Exceptions** to the Report/Recommendations  
Addendum to ARLU-DeCo's response

Please consider the following objections to the May 21, 1993 report. I take exception with the following items:

### Inadequate Attention to Cumulative Effects

In my January 3, 1993 objection I raised the issue of inadequate consideration of cumulative effects in the 1992 Periodic Review. DLCD's report tiptoes around the issue but does not adequately respond to the concern.

Page-8, paragraph 2 of the report states that our objection regarding effects of development on riparian habitats "is not sustained regarding cumulative effects. A 100 foot buffer may not always include all of a riparian habitat ecosystem. However, Goal 5 requires protection of the significant "habitat" and not just the vegetation along streams and wetlands." That was precisely my point!

The original Wildlife Area Combining Zone Ordinance recognized the potential effects of development on riparian areas by including them as part of the WA zone- imposing significant substantive and procedural requirements in Section 18.88.050 and 18.128.040 (P),(Q) or (R). The County violated its own ordinances for years by failing to enforce these requirements and conveniently deleted the section during Periodic Review as not a "clear and objective standard" when it became an issue in a Flood Plain Conditional use application along Indian Ford Creek.

The County does not need an "inventory of significant riparian habitat areas" to complete its Goal 5 obligations. This is merely a stalling tactic. The Deschutes County/ City of Bend River Study defines riparian habitats on pg. 6-1 as "the vegetated portion of streambanks and adjacent floodplains". We know where streambanks are. We know where floodplains are. There are reams of information regarding the significance of riparian habitats to wildlife and fish in the River Study but no explanation why they should be removed from the protection of the WA Zone.

Riparian areas were included in the WA zone for a good reason. "Inadequate inventories" is not a good reason to remove them. The only good reason the County has to remove riparian areas from the procedural requirements of the



WA Zone is their blatant failure to enforce their own zoning ordinances to protect these critical wildlife areas which are also integral to the health of our watersheds. They are protecting themselves from well deserved legal retribution.

In fact, the County's failure to adequately protect riparian zones has caused perhaps irreversible harm to wildlife, fish, and water resources. I include as Appendix A the 1988 DEQ/ EPA Oregon Statewide Assessment of Non-Point Sources of Water Pollution. Many streams and creeks in Deschutes County are exhibiting the impairment of beneficial uses affecting fish and aquatic life, wildlife, water contact recreation, aesthetics, and the quality of municipal water supplies.

On Page 9, paragraph 5 of DLCD's report it states "Cumulative effects analyses are more critical when local government is relying on previously acknowledged provisions to comply with periodic review. Provisions such as these need to be tested against subsequent development to determine there (sic) effectiveness."

Perhaps DLCD is using a different definition of "cumulative effects" than the one I understand. In my definition of "cumulative effects" all effects must be considered together, including -significantly, the effects of past actions or management practices. If actions of the past have adversely affected systems then actions of the future must consider this and compensate. Deschutes County has failed to enforce developmental standards for riparian zones for over a decade during a time of rapid growth. This negligence cannot be compensated for by removing the bothersome passage of the WA zone ordinance and promising a review and ordinance amendments "if necessary".

We do not need to wait to test the effectiveness of new provisions. We know we have a serious downward trend in water quality affecting beneficial uses. We know the County has failed to enforce protective ordinances for over a decade. Fisheries experts are testifying to Congress that degradation of the Pacific Northwest's waterways is nearing the point of no return and that existing laws are not comprehensive enough to address the needs of Aquatic ecosystems (Appendix B- Bulletin article "Alarms sound on fish, water").

The most difficult challenge for the County in understanding the significance of it's past and future planning decisions regarding riparian zones and watersheds is that they have no information regarding the capacity and function of the system with which to evaluate effects.

The Comprehensive Plan promised in 1979 as Water Policy No.1



pg 139, a County wide Hydrology study. Without this study, which would provide an understanding of our hydrological systems function and capability, the County has no way to evaluate the how serious local water quality and quantity problems are. As stated in testimony I submitted from Larry Brewer (Jan 19 1993):

"Deschutes County is processing applications and making decisions on developmental matters regarding ground water and surface water in Deschutes County with entirely inadequate information to assess the impacts of their decisions. With the population growing at a rapid rate in the area, ground water may become a limited resource from the perspective of both quantity and quality. Mismanagement of the public water resources in the area would be disastrous to human communities."

The effects of mismanagement are also disastrous for fish and wildlife who depend on clean water and riparian habitats as refugia. I agree with DLCD that the County has been confusing "wetland protection" with "riparian protection" and that the terms "riparian" and "wetland" are not synonymous. Consequently, the evaluation and protection of riparian areas requires a different inquiry and approach than does the preservation of wetlands.

In conclusion, the County needs to assess the effects of its past failure to regulate developments along riparian areas and include this assessment in addressing the plan for the future. A greater urgency needs to be placed on obtaining the information necessary to adequately assess effects ie. the long promised hydrology study. The County seems to find time and money to spend on optional goals (like Goal 8) and wastes precious time that should be spent dealing with basic resource questions like the health and function of the County's water and watershed systems.

Our watersheds are a most telling indicator of ecosystem health. As the story told by DEQ's Nonpoint Pollution Study shows - many of our waterways are polluted and beneficial uses are being severely impacted. We cannot afford to wait to address cumulative effects- they are with us now.

*Maret Pajutee*

Maret Pajutee  
for ARLU-DeCo



For Reference

Not to be taken

from this library

RN 628.16

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OREGON. DEPARTMENT OF ENVI

OREGON STATEWIDE ASSESSME

# 1988 Oregon Statewide Assessment of Nonpoint Sources of Water Pollution 1988

Planning & Monitoring Section, Water Quality Division  
Oregon Department of Environmental Quality, WATER QUALITY DIVISION  
811 SW Sixth Ave.  
Portland, Oregon 97204

THIS PROJECT HAS BEEN FINANCED IN PART WITH FEDERAL  
FUNDS FROM THE U.S. ENVIRONMENTAL PROTECTION AGENCY.  
THE CONTENTS DO NOT NECESSARILY REFLECT THE VIEWS OR  
POLICIES OF THE EPA.

August, 1988



## Chapter 4

# Assessment of NPS-Related Water Quality Problems

### 4.1 Introduction to the Maps

"Designated uses," "beneficial uses," and "recognized beneficial uses" are terms used somewhat interchangeably in state and federal water quality laws and regulations. In each case, the meaning is the same for the purposes of this NPS assessment:

The reasonable use of water for a purpose consistent with the laws and best interest of the peoples of the state.

In Oregon, such uses have been specified by the EQC for each of the 19 river basins in the state. The list is designed to identify uses for which water quality must be protected. These uses include, but are not limited to, domestic, municipal, and industrial water supply, irrigation, livestock watering, habitat for fish and other aquatic life, wildlife, commercial and sport fishing, boating, water contact recreation, aesthetics and scenic attraction, hydropower, and commercial navigation. Not all of these uses are recognized on every waterbody in Oregon. For example, drinking water supply, irrigation, and stock watering are not recognized beneficial uses of estuarine and adjacent marine waters (because of the salt content), and commercial transportation is not a recognized beneficial use on the smaller streams and tributaries throughout the state. The designated uses of the waters of the state for which water quality must be protected are detailed in Oregon Administrative Rules (OAR) Chapter 340, Division 41.

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*Each type of NPS pollution has a particular effect on one or more beneficial uses of water, but each type of pollution does not necessarily affect all beneficial uses to the same extent or in the same way.*

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Each type of NPS pollution has a particular effect on one or more beneficial uses of water, but each type of pollution does not necessarily affect all beneficial uses to the same extent or in the same way. For example, elevated or depressed water temperatures can adversely affect water quality for fish and other aquatic life, but will have no effect on the use of the water for irrigation or livestock watering. In another example, elevated water temperatures may enhance water contact recreation but may be bad for cold water fish. Accordingly, the presence of certain NPS pollutants can be linked to the condition of water for certain beneficial uses. These linkages are represented on the maps in this assessment. The NPS pollution types selected as parameters for each map are as follows:

#### 4.1.1 Water Quality Conditions Affecting Fish

Pollutants and other water quality parameters that affect water quality for fish include turbidity, low dissolved oxygen, elevated or depressed water temperature, dissolved gases, abnormal pH, pesticides, and toxics. Turbidity is the presence of suspended solids in the water that can damage fish gills and interfere with the fish's ability to see its prey. Fish cannot breathe if dissolved oxygen concentrations are too low. Dissolved gasses, elevated temperatures, and abnormal pH can make fish more susceptible to disease. Pesticides and toxic chemicals in water can be poisonous, carcinogenic or otherwise directly harmful to life. Waterbodies identified as having one or more of these conditions affecting cold or warm water fish are identified on the map.

#### 4.1.2 Stream Quality Affecting Aquatic Habitat

Physical features other than water quality can indicate whether beneficial uses are being supported within a stream. Although some of these other physical features are not addressed by Oregon's water quality standards, their presence in the riparian and aquatic zones gives important clues as to the sources of the water quality problems

shown on other maps. Fish habitat can be affected by sedimentation, streambank erosion, excessive debris accumulation, low flows, and insufficient stream structure. Sedimentation can clog fish spawning beds. Streambank erosion removes hiding cover and destroys vegetation used as shade and as a source of insects for food. Excessive debris accumulation is the presence of logs, slash, car bodies and other organic and inorganic materials in amounts large enough to hinder fish passage. Low flow restricts fish passage, reduces the volume of habitat, and intensifies other pollution problems (streams that are naturally intermittent are not considered to have "low flow" problems). Problems with stream structure (streambank condition, the location and amount of boulders and woody debris, the pools-to-riffle ratio, etc.) may reduce channel stability, the quality of fish habitat, or the flow regulating characteristics of a stream. Water bodies identified as having one or more of these conditions affecting cold or warm water fish or other aquatic life are identified on the map.

#### 4.1.3 Water Quality Conditions Affecting Contact Recreation and Shellfish

Pollutants affecting this use include nutrients, excessive plant growths, objectionable floating materials, pathogenic bacteria, and viruses. Heavy loads of nutrients contribute to algal blooms and excessive plant growths. Abundant algae may make the water appear green or turbid, and excessive plant growth impedes boating and makes swimming unpleasant or dangerous. Objectionable floating materials (including oily or discolored slicks, floating scum and solids, and a variety of organic materials) may be malodorous, unhealthful, and a hazard to boaters and swimmers. Pathogenic bacteria and viruses are organisms that cause disease in animals or humans. Shellfish are filter-feeders and may accumulate bacteria and viruses in their tissue. Shellfish thus contaminated are unfit for human consumption. Waterbodies identified as having one or more of these conditions affecting water contact recreation or shellfish growing are identified on the map.

#### 4.1.4 Water Quality Conditions Affecting Drinking Water Supplies

Pollutants that affect this use include turbidity, pesticides, toxic chemicals, radioisotopes, and saltwater intrusion. Turbidity (suspended solid material) is aesthetically unappealing and may damage water treatment and delivery systems. Pesticides (including herbicides, insecticides, algicides, fungicides, and other chemicals), in various concentrations, are hazardous to humans. Toxic chemicals may be poisonous, carcinogenic or otherwise directly harmful to humans. Ra-



## PREFACE

The information in this Assessment Report is the first step in a phased process for identifying and correcting water quality problems resulting from nonpoint source (NPS) pollution in Oregon. The assessment is a compilation of responses to a questionnaire sent out in late 1987, the results of which were reviewed in a series of public meetings. Several hundred citizens and resource management professionals representing many kinds of land and water use contributed to the assessment effort over a nine-month period.

The nonpoint source assessment will help the Department of Environmental Quality (DEQ) and other resource management agencies focus attention and effort on those waterbodies most in need of assistance. It will enable resource managers to more knowledgeably set priorities for monitoring and for rehabilitative work and to identify areas where extra caution should be exercised in land use activities to protect water quality.

Much of the information in the assessment, which includes both water quality and habitat considerations, has not been verified by the DEQ. Additional detailed analyses will be necessary to provide a definitive description of NPS-related water quality problems in Oregon. The detailed analysis is the second phase of the Oregon NPS control process. It will include verification of the water quality information provided by respondents to the assessment questionnaire by thoroughly reviewing the information base used by the respondents in reporting NPS-related water quality problems and by additional water quality monitoring and on-site evaluations by DEQ. Only after such review will DEQ be able to designate the NPS-related water quality conditions in Oregon's rivers, lakes, estuaries, and aquifers (including "water quality limited" designations pursuant to Section 303 of the federal Clean Water Act).

The NPS database presented here will, in part, guide the development of the Statewide NPS Management Plan, scheduled for completion in early 1989. This Management Plan will further detail the process of verifying and prioritizing NPS-related water quality problems in the state, and also will describe NPS program needs in Oregon, outline the program's structure, and list program objectives. The Assessment and Management Reports fulfill the Congressional mandate (section 319 of Water Quality Act of 1987) to identify waters of the state that may not meet water quality goals due to pollution from nonpoint sources and to describe the State's program for controlling NPS pollution.

\*\*\*\*\*

Just as water quality may improve or degrade over time, the Nonpoint Source Assessment is dynamic. It will be updated periodically based on new information. If you have knowledge of the condition of a specific waterbody that would change what is reflected in this report, please send it to the Department of Environmental Quality, Water Quality Division, Nonpoint Source Section, 811 SW Sixth, Portland, Oregon 97204.

503/229-5696



radioisotopes can similarly affect human health. Saltwater intrusion refers to the encroachment of saline water into freshwater supplies due to human activities (such as over-withdrawal of groundwater).

Some drinking water pollution problems are "treatable"—that is, the polluted water can be made safe for human consumption through disinfection, filtration, or some other conventional treatment process. The Oregon Environmental Quality Commission (EQC) has determined that it is reasonable to expect that water be treated before human consumption and that water quality in streams and other waterbodies need not be maintained at human consumption standards. In general, then, the impacts of NPS pollutants on this beneficial use relate primarily to the cost and feasibility of treating the water so that it is drinkable. Because pathogenic bacteria, viruses, and turbidity can be dealt with by conventional and relatively inexpensive means, the presence of these pollutants is rarely considered a "severe" problem. Stream segments reported as polluted by pathogenic bacteria or viruses are not shown on the "Drinking Water Supply" map because conventional treatment can eliminate these pollutant altogether. Similarly, turbidity pollution heavy enough to rate as severe for other beneficial uses (such as water quality for fish) is shown as moderate on this map because conventional treatment process can remove much of the solid material suspended in the water. On the other hand, pollutants such as toxics and pesticides are considered untreatable because the technology necessary to eliminate these pollutants is either unavailable, impractical, or prohibitively expensive. Waterbodies identified as having one or more of these conditions and also reported to affect water supplies for human consumption are displayed on the map.

#### 4.1.5 Groundwater

Groundwater aquifers in Oregon provide water for human consumption, irrigation, livestock watering, and other beneficial uses. Shallow, unconfined aquifers are susceptible to many of the same pollutants which degrade surface waters, but are even more vulnerable to long-term exposure because they tend to collect and concentrate pollutants. Respondents to the NPS survey and attendees at the public meetings identified several pollutants as affecting these uses of groundwater: nutrients, pesticides, toxics, salt water intrusion, pathogenic bacteria and viruses, and groundwater depletion. Aquifers identified as having one or more of these pollutants in such quantity as to impair beneficial uses of the groundwater are displayed on the map.

#### 4.1.6 Other Uses Not Shown

The waters of Oregon support more beneficial uses than those depicted on the maps described above and shown in this assessment report. Each set of basin maps reviewed during the May 1988 public meetings also included two maps showing reported NPS pollution impacts on aesthetics in waterbodies and on irrigation and livestock watering. Two other maps showed reported problems with toxics and low stream flows. These four maps were dropped from this assessment report for the reasons described below. However, the data base information relating to these deleted maps is included in the tables in Appendix E.

##### Aesthetics

Comments from survey respondents and from the public at the spring review meetings suggested that we combine the pollution parameters for aesthetics (turbidity, nutrients, floating solids, and excessive plant growths) with those for water contact recreation (pathogenic bacteria and viruses). It was agreed that the aesthetic and recreational uses of water are too closely linked to depict on separate maps.

##### Irrigation and Livestock Watering

Water quality for irrigation use is adversely affected by turbidity if the problem is severe enough to result in damage to pumping and delivery equipment or siltation of distribution canals and reservoirs. However, the turbidity reported was generally mentioned as an impairment of water quality for fish, and not necessarily an impairment of irrigation. Even where turbidity did affect irrigation, the impact was generally moderate—an inconvenience and extra cost to the operator, but not a significant impairment of the beneficial use. The use of water for livestock watering may be sensitive to several NPS pollutants, particularly pesticides and toxics. But water pollution standards for these (and other) pollutants are neither set nor sampled with livestock in mind, and assessment respondents had little information about NPS impacts on livestock watering.

##### Toxics

The toxics and low flow maps were different from the other maps taken out for public review in that they depicted reasons for water quality problems rather than effects of pollution on beneficial uses.

Relatively little new information on toxics (as well as pesticides, radioisotopes, and saltwater intrusion, which were also shown on the toxics map) was collected during this NPS assessment because most

of the resource management agencies and individuals surveyed do not analyze water samples for these pollutants, and because toxics may not be as visually noticeable as many of the other pollutant types. Consequently, toxic and pesticide problems reported by NPS assessment respondents were based largely on perception rather than on data or actual observation of effects. None of these perception-based reports were mapped in this assessment, but the issue of NPS toxic and pesticide pollutants will be addressed in the NPS management planning process to come. The information on toxics that was collected for DEQ's special report on toxics to EPA (pursuant to Section 304 of the Clean Water Act) was incorporated into the NPS data base and is reflected in this assessment in the beneficial use maps relating to water quality for fish and drinking water and the groundwater map.

##### Low Flows

Many stream segments were identified as having low flow problems, with the result being an intensification of most water quality problems. Low flows were combined with other parameters and shown on the Stream Quality Affecting Aquatic Habitat map. The low flow information remaining in the NPS database will be useful in developing NPS prevention and control management schemes for waterbodies throughout the state.

Finally, several additional beneficial uses of Oregon's waters—mining, hydro power, industrial water supply, and commercial navigation—are generally insensitive to NPS pollution (except for the most extreme instances). With few respondents reporting impairment of these uses, maps showing their effects were not prepared.

## 4.2 How to use maps and tables

Each basin summary includes five maps: water quality for fish, aquatic habitat for fish, water contact recreation and shellfish, drinking water supply, and a composite map. Basin summaries also include a description of the basin's geography, a table showing miles of stream affected for various beneficial uses, and a brief summary of pollution causes and associated land uses most commonly cited by respondents. In addition, a single state-wide map shows reported NPS-related pollution of shallow, unconfined aquifers. On the surface water maps, severe impacts on beneficial uses are shown by red lines. Moderate impacts are shown by green lines. Blue lines indicate either that no information on the stream segment was received or that the segment fully supports all beneficial uses. Thick lines indicate that reports of stream conditions were backed by "specific data." Thin lines indicate that reports



### Values For Deschutes Basin

### Values For Deschutes Basin

| DEQ |                    | low  |    |      |      |      |       |      |     |       |        | DEQ |         |          |        |        |        |       |    |    |     | dom |       |       |        |      |      |       |       |      |       | fish  |       |       |   |   |   |   |  |  |  | other |  |  |  |  |  |  |  |  |  | wild |  |  |  |  |  |  |  |  |  | water |  |  |  |  |  |  |  |  |  |
|-----|--------------------|------|----|------|------|------|-------|------|-----|-------|--------|-----|---------|----------|--------|--------|--------|-------|----|----|-----|-----|-------|-------|--------|------|------|-------|-------|------|-------|-------|-------|-------|---|---|---|---|--|--|--|-------|--|--|--|--|--|--|--|--|--|------|--|--|--|--|--|--|--|--|--|-------|--|--|--|--|--|--|--|--|--|
| id  | stream name        | turb | do | temp | nutr | pest | toxic | salt | b/v | gases | solids | sed | erosion | low flow | debris | struct | plants | other | id | ws | mun | ind | irrig | stock | mining | fish | fish | other | aquat | wild | water | aesth | power | navig |   |   |   |   |  |  |  |       |  |  |  |  |  |  |  |  |  |      |  |  |  |  |  |  |  |  |  |       |  |  |  |  |  |  |  |  |  |
| 21  | DESCHUTES R        | M2   | —  | M2   | —    | —    | M1    | —    | —   | —     | —      | M2  | M2      | —        | M2     | —      | —      | M1    | 21 | —  | —   | —   | —     | —     | —      | Y    | —    | Y     | Y     | Y    | Y     | —     | —     |       |   |   |   |   |  |  |  |       |  |  |  |  |  |  |  |  |  |      |  |  |  |  |  |  |  |  |  |       |  |  |  |  |  |  |  |  |  |
| 22  | DESCHUTES R        | M2   | —  | —    | —    | —    | M1    | —    | —   | —     | —      | —   | M2      | —        | —      | —      | —      | M1    | 22 | —  | Y   | —   | —     | —     | —      | Y    | —    | Y     | —     | Y    | Y     | —     | —     |       |   |   |   |   |  |  |  |       |  |  |  |  |  |  |  |  |  |      |  |  |  |  |  |  |  |  |  |       |  |  |  |  |  |  |  |  |  |
| 23  | DESCHUTES R        | —    | M1 | —    | —    | —    | S1    | —    | —   | —     | —      | M1  | —       | M1       | —      | —      | —      | S1    | 23 | —  | —   | —   | Y     | —     | —      | Y    | —    | Y     | Y     | Y    | Y     | —     | —     |       |   |   |   |   |  |  |  |       |  |  |  |  |  |  |  |  |  |      |  |  |  |  |  |  |  |  |  |       |  |  |  |  |  |  |  |  |  |
| 24  | DESCHUTES R        | M1   | M1 | —    | —    | —    | S1    | —    | —   | —     | —      | M1  | M1      | M1       | —      | —      | —      | S1    | 24 | —  | —   | —   | —     | —     | —      | Y    | —    | Y     | Y     | Y    | Y     | —     | —     |       |   |   |   |   |  |  |  |       |  |  |  |  |  |  |  |  |  |      |  |  |  |  |  |  |  |  |  |       |  |  |  |  |  |  |  |  |  |
| 25  | DESCHUTES R        | M1   | S1 | —    | —    | —    | S1    | —    | —   | —     | —      | M1  | M1      | S1       | —      | —      | —      | S1    | 25 | Y  | Y   | Y   | Y     | Y     | —      | Y    | —    | Y     | Y     | Y    | Y     | Y     | —     | —     |   |   |   |   |  |  |  |       |  |  |  |  |  |  |  |  |  |      |  |  |  |  |  |  |  |  |  |       |  |  |  |  |  |  |  |  |  |
| 26  | DESCHUTES R        | M1   | S1 | —    | M2   | —    | —     | —    | —   | —     | —      | M1  | M1      | S1       | —      | M2     | —      | —     | —  | 26 | Y   | Y   | Y     | Y     | Y      | —    | Y    | —     | Y     | Y    | Y     | Y     | —     | —     |   |   |   |   |  |  |  |       |  |  |  |  |  |  |  |  |  |      |  |  |  |  |  |  |  |  |  |       |  |  |  |  |  |  |  |  |  |
| 27  | DESCHUTES R        | M1   | M1 | —    | M1   | —    | —     | —    | —   | —     | —      | M1  | M1      | M1       | —      | M1     | —      | —     | —  | 27 | —   | —   | Y     | Y     | Y      | —    | Y    | —     | Y     | Y    | Y     | Y     | Y     | —     | — |   |   |   |  |  |  |       |  |  |  |  |  |  |  |  |  |      |  |  |  |  |  |  |  |  |  |       |  |  |  |  |  |  |  |  |  |
| 28  | DESCHUTES R        | S1   | S1 | —    | S1   | —    | —     | —    | —   | —     | —      | —   | S1      | S1       | —      | S1     | —      | —     | —  | 28 | —   | —   | Y     | Y     | Y      | —    | Y    | —     | Y     | Y    | Y     | Y     | Y     | Y     | — | — |   |   |  |  |  |       |  |  |  |  |  |  |  |  |  |      |  |  |  |  |  |  |  |  |  |       |  |  |  |  |  |  |  |  |  |
| 29  | DESCHUTES R        | —    | M1 | —    | M1   | —    | —     | —    | —   | —     | —      | S1  | S1      | M1       | —      | M1     | —      | —     | —  | 29 | —   | —   | —     | Y     | Y      | —    | Y    | —     | Y     | —    | Y     | Y     | Y     | Y     | — | — |   |   |  |  |  |       |  |  |  |  |  |  |  |  |  |      |  |  |  |  |  |  |  |  |  |       |  |  |  |  |  |  |  |  |  |
| 30  | LITTLE DESCHUTES R | S1   | S1 | —    | S1   | —    | —     | —    | S1  | —     | —      | S1  | S1      | S1       | —      | S1     | —      | —     | —  | 30 | Y   | Y   | —     | Y     | Y      | —    | Y    | —     | Y     | Y    | Y     | Y     | Y     | —     | — |   |   |   |  |  |  |       |  |  |  |  |  |  |  |  |  |      |  |  |  |  |  |  |  |  |  |       |  |  |  |  |  |  |  |  |  |
| 31  | CRESENT CR         | S1   | S1 | —    | —    | —    | —     | —    | —   | —     | —      | —   | S1      | S1       | —      | —      | —      | —     | —  | 31 | —   | —   | —     | Y     | Y      | —    | Y    | —     | Y     | Y    | Y     | Y     | Y     | —     | — |   |   |   |  |  |  |       |  |  |  |  |  |  |  |  |  |      |  |  |  |  |  |  |  |  |  |       |  |  |  |  |  |  |  |  |  |
| 32  | WICKIUP RES        | —    | S1 | —    | —    | —    | S1    | —    | —   | —     | —      | —   | —       | S1       | —      | —      | —      | S1    | 32 | —  | —   | —   | Y     | —     | —      | Y    | —    | Y     | Y     | Y    | Y     | Y     | —     | —     | — |   |   |   |  |  |  |       |  |  |  |  |  |  |  |  |  |      |  |  |  |  |  |  |  |  |  |       |  |  |  |  |  |  |  |  |  |
| 33  | CRANE PRAIRIE RES  | —    | S1 | —    | —    | S1   | S1    | —    | —   | —     | —      | —   | —       | S1       | —      | —      | S1     | S1    | 33 | —  | —   | —   | —     | —     | —      | Y    | —    | Y     | Y     | Y    | Y     | Y     | —     | —     | — |   |   |   |  |  |  |       |  |  |  |  |  |  |  |  |  |      |  |  |  |  |  |  |  |  |  |       |  |  |  |  |  |  |  |  |  |
| 34  | TUMALO CR          | —    | S1 | —    | S1   | —    | —     | —    | —   | —     | —      | —   | —       | S1       | —      | S1     | —      | —     | —  | 34 | —   | Y   | —     | Y     | Y      | —    | Y    | —     | Y     | Y    | Y     | Y     | Y     | —     | — | — |   |   |  |  |  |       |  |  |  |  |  |  |  |  |  |      |  |  |  |  |  |  |  |  |  |       |  |  |  |  |  |  |  |  |  |
| 36  | SQUAW CR           | S1   | S1 | —    | S1   | —    | —     | —    | —   | —     | —      | —   | S1      | S1       | —      | S1     | —      | —     | —  | 36 | Y   | Y   | Y     | Y     | Y      | —    | Y    | —     | Y     | Y    | Y     | Y     | Y     | —     | — | — |   |   |  |  |  |       |  |  |  |  |  |  |  |  |  |      |  |  |  |  |  |  |  |  |  |       |  |  |  |  |  |  |  |  |  |
| 37  | INDIAN FORD        | —    | S1 | —    | —    | S1   | —     | —    | —   | —     | —      | —   | —       | S1       | —      | —      | S1     | —     | —  | 37 | Y   | —   | Y     | Y     | Y      | —    | Y    | —     | Y     | Y    | Y     | Y     | Y     | —     | — | — |   |   |  |  |  |       |  |  |  |  |  |  |  |  |  |      |  |  |  |  |  |  |  |  |  |       |  |  |  |  |  |  |  |  |  |
| 38  | BUCK HOLLOW CR     | S2   | S2 | —    | S2   | —    | —     | —    | —   | —     | —      | S2  | S2      | S2       | —      | S2     | —      | —     | —  | 38 | —   | —   | —     | —     | Y      | —    | Y    | —     | Y     | Y    | Y     | Y     | Y     | —     | — | — |   |   |  |  |  |       |  |  |  |  |  |  |  |  |  |      |  |  |  |  |  |  |  |  |  |       |  |  |  |  |  |  |  |  |  |
| 39  | WHITE R            | M2   | M2 | —    | —    | —    | —     | —    | M2  | —     | —      | S2  | M2      | M2       | —      | —      | —      | —     | —  | 39 | —   | —   | —     | Y     | —      | —    | Y    | —     | Y     | —    | Y     | Y     | Y     | —     | — | — |   |   |  |  |  |       |  |  |  |  |  |  |  |  |  |      |  |  |  |  |  |  |  |  |  |       |  |  |  |  |  |  |  |  |  |
| 40  | TYGH CR            | —    | S1 | —    | S1   | —    | —     | —    | —   | —     | —      | S1  | —       | S1       | —      | S1     | —      | —     | —  | 40 | —   | —   | —     | Y     | —      | —    | Y    | —     | Y     | —    | Y     | Y     | Y     | —     | — | — |   |   |  |  |  |       |  |  |  |  |  |  |  |  |  |      |  |  |  |  |  |  |  |  |  |       |  |  |  |  |  |  |  |  |  |
| 41  | JORDAN CR          | —    | —  | —    | M1   | —    | —     | —    | —   | —     | —      | M1  | —       | —        | —      | M1     | —      | —     | —  | 41 | —   | —   | —     | —     | —      | —    | Y    | —     | Y     | —    | —     | Y     | Y     | —     | — | — |   |   |  |  |  |       |  |  |  |  |  |  |  |  |  |      |  |  |  |  |  |  |  |  |  |       |  |  |  |  |  |  |  |  |  |
| 42  | BADGER CR          | —    | M1 | —    | M1   | —    | —     | —    | —   | —     | —      | —   | —       | M1       | —      | M1     | —      | —     | —  | 42 | —   | —   | —     | —     | —      | —    | Y    | —     | Y     | Y    | —     | —     | Y     | Y     | — | — |   |   |  |  |  |       |  |  |  |  |  |  |  |  |  |      |  |  |  |  |  |  |  |  |  |       |  |  |  |  |  |  |  |  |  |
| 43  | BADGER CR          | —    | M1 | —    | —    | —    | —     | —    | —   | —     | —      | —   | —       | M1       | —      | —      | —      | —     | —  | 43 | —   | —   | —     | —     | —      | —    | Y    | —     | Y     | Y    | —     | —     | —     | —     | — | — |   |   |  |  |  |       |  |  |  |  |  |  |  |  |  |      |  |  |  |  |  |  |  |  |  |       |  |  |  |  |  |  |  |  |  |
| 44  | THREEMILE CR       | S2   | S2 | —    | S2   | —    | —     | —    | —   | —     | —      | S2  | S2      | S2       | —      | S2     | —      | —     | —  | 44 | —   | —   | —     | —     | Y      | —    | Y    | —     | Y     | Y    | —     | —     | —     | —     | — | — |   |   |  |  |  |       |  |  |  |  |  |  |  |  |  |      |  |  |  |  |  |  |  |  |  |       |  |  |  |  |  |  |  |  |  |
| 45  | ROCK CR            | S1   | S1 | —    | S1   | —    | S1    | —    | —   | —     | —      | S1  | S1      | S1       | —      | S1     | —      | S1    | —  | 45 | —   | —   | —     | —     | Y      | —    | Y    | —     | —     | Y    | —     | —     | —     | —     | — | — |   |   |  |  |  |       |  |  |  |  |  |  |  |  |  |      |  |  |  |  |  |  |  |  |  |       |  |  |  |  |  |  |  |  |  |
| 46  | GATE CR            | S1   | S1 | —    | S1   | —    | —     | —    | —   | —     | —      | S1  | S1      | S1       | —      | S1     | —      | —     | —  | 46 | —   | —   | —     | —     | Y      | —    | Y    | —     | —     | Y    | —     | —     | —     | —     | — | — |   |   |  |  |  |       |  |  |  |  |  |  |  |  |  |      |  |  |  |  |  |  |  |  |  |       |  |  |  |  |  |  |  |  |  |
| 47  | GATE CR            | M2   | —  | —    | M2   | —    | —     | —    | —   | —     | —      | M2  | M2      | —        | —      | M2     | —      | —     | —  | 47 | —   | —   | —     | —     | Y      | —    | Y    | —     | —     | Y    | —     | —     | —     | —     | — | — |   |   |  |  |  |       |  |  |  |  |  |  |  |  |  |      |  |  |  |  |  |  |  |  |  |       |  |  |  |  |  |  |  |  |  |
| 48  | CRANE CR           | —    | M1 | —    | —    | —    | —     | —    | —   | —     | —      | —   | —       | M1       | —      | —      | —      | —     | —  | 48 | —   | —   | —     | Y     | Y      | —    | Y    | —     | —     | Y    | —     | —     | —     | —     | — | — |   |   |  |  |  |       |  |  |  |  |  |  |  |  |  |      |  |  |  |  |  |  |  |  |  |       |  |  |  |  |  |  |  |  |  |
| 49  | CEDAR CR           | —    | M1 | —    | —    | —    | —     | —    | —   | —     | —      | —   | —       | M1       | —      | —      | —      | —     | —  | 49 | —   | —   | —     | Y     | Y      | —    | Y    | —     | —     | Y    | —     | —     | —     | —     | — | — |   |   |  |  |  |       |  |  |  |  |  |  |  |  |  |      |  |  |  |  |  |  |  |  |  |       |  |  |  |  |  |  |  |  |  |
| 50  | BARLOW CR          | M2   | —  | —    | M2   | —    | —     | —    | —   | —     | —      | M2  | M2      | —        | —      | M2     | —      | —     | —  | 50 | —   | —   | —     | —     | —      | —    | Y    | —     | Y     | Y    | Y     | Y     | Y     | —     | — | — |   |   |  |  |  |       |  |  |  |  |  |  |  |  |  |      |  |  |  |  |  |  |  |  |  |       |  |  |  |  |  |  |  |  |  |
| 51  | FROG CR            | —    | S1 | —    | —    | —    | —     | —    | —   | —     | —      | —   | —       | S1       | —      | —      | —      | —     | —  | 51 | —   | —   | —     | —     | —      | —    | Y    | —     | Y     | Y    | Y     | Y     | —     | —     | — | — |   |   |  |  |  |       |  |  |  |  |  |  |  |  |  |      |  |  |  |  |  |  |  |  |  |       |  |  |  |  |  |  |  |  |  |
| 52  | CLEAR CR           | —    | S2 | —    | —    | —    | —     | —    | —   | —     | —      | S2  | —       | S2       | —      | —      | —      | —     | —  | 52 | —   | —   | —     | —     | —      | —    | Y    | —     | Y     | Y    | Y     | Y     | Y     | —     | — | — |   |   |  |  |  |       |  |  |  |  |  |  |  |  |  |      |  |  |  |  |  |  |  |  |  |       |  |  |  |  |  |  |  |  |  |
| 53  | MCCUBBINS GULCH    | M2   | —  | —    | M2   | —    | —     | —    | —   | —     | —      | M2  | M2      | —        | —      | M2     | —      | —     | —  | 53 | —   | —   | —     | Y     | Y      | —    | Y    | Y     | Y     | Y    | Y     | Y     | Y     | —     | — | — |   |   |  |  |  |       |  |  |  |  |  |  |  |  |  |      |  |  |  |  |  |  |  |  |  |       |  |  |  |  |  |  |  |  |  |
| 54  | FROG SPRINGS CR    | —    | —  | —    | —    | —    | —     | —    | —   | —     | —      | S2  | —       | —        | —      | —      | —      | —     | —  | 54 | —   | —   | —     | —     | —      | —    | Y    | —     | Y     | —    | Y     | Y     | Y     | Y     | — | — |   |   |  |  |  |       |  |  |  |  |  |  |  |  |  |      |  |  |  |  |  |  |  |  |  |       |  |  |  |  |  |  |  |  |  |
| 55  | BAKEOVEN CR        | M2   | M2 | —    | M2   | —    | —     | —    | —   | —     | —      | M2  | M2      | M2       | —      | M2     | —      | —     | —  | 55 | —   | —   | —     | —     | Y      | —    | Y    | —     | Y     | —    | Y     | Y     | Y     | Y     | — | — | — |   |  |  |  |       |  |  |  |  |  |  |  |  |  |      |  |  |  |  |  |  |  |  |  |       |  |  |  |  |  |  |  |  |  |
| 56  | WAPINITIA CR       | M2   | M2 | —    | M2   | —    | —     | —    | —   | —     | —      | M2  | M2      | M2       | —      | M2     | —      | —     | —  | 56 | —   | —   | —     | —     | Y      | —    | Y    | —     | Y     | —    | —     | Y     | Y     | —     | — | — |   |   |  |  |  |       |  |  |  |  |  |  |  |  |  |      |  |  |  |  |  |  |  |  |  |       |  |  |  |  |  |  |  |  |  |
| 57  | NENA CR            | M2   | M2 | —    | M2   | —    | —     | —    | —   | —     | —      | M2  | M2      | M2       | —      | M2     | —      | —     | —  | 57 | —   | —   | —     | —     | —      | —    | Y    | —     | Y     | —    | —     | Y     | Y     | —     | — | — |   |   |  |  |  |       |  |  |  |  |  |  |  |  |  |      |  |  |  |  |  |  |  |  |  |       |  |  |  |  |  |  |  |  |  |
| 58  | TROUT CR           | —    | S1 | —    | S1   | —    | —     | —    | —   | —     | —      | S1  | —       | S1       | —      | S1     | —      | —     | —  | 58 | —   | —   | —     | —     | —      | —    | Y    | —     | Y     | —    | Y     | Y     | Y     | Y     | — | — | — |   |  |  |  |       |  |  |  |  |  |  |  |  |  |      |  |  |  |  |  |  |  |  |  |       |  |  |  |  |  |  |  |  |  |
| 59  | TROUT CR           | —    | M2 | —    | M2   | —    | —     | —    | —   | —     | —      | M2  | —       | M2       | —      | M2     | —      | —     | —  | 59 | —   | —   | —     | Y     | Y      | —    | Y    | —     | Y     | Y    | Y     | Y     | Y     | Y     | — | — | — |   |  |  |  |       |  |  |  |  |  |  |  |  |  |      |  |  |  |  |  |  |  |  |  |       |  |  |  |  |  |  |  |  |  |
| 60  | TROUT CR           | M2   | M2 | —    | M2   | —    | —     | —    | —   | —     | —      | M2  | M2      | M2       | —      | M2     | —      | —     | —  | 60 | —   | —   | —     | Y     | Y      | —    | Y    | —     | Y     | Y    | Y     | Y     | Y     | Y     | — | — | — |   |  |  |  |       |  |  |  |  |  |  |  |  |  |      |  |  |  |  |  |  |  |  |  |       |  |  |  |  |  |  |  |  |  |
| 61  | TROUT CR           | M2   | —  | —    | M2   | —    | —     | —    | —   | —     | —      | M2  | M2      | —        | —      | M2     | —      | —     | —  | 61 | —   | —   | —     | Y     | Y      | —    | Y    | —     | Y     | Y    | —     | Y     | Y     | —     | — | — |   |   |  |  |  |       |  |  |  |  |  |  |  |  |  |      |  |  |  |  |  |  |  |  |  |       |  |  |  |  |  |  |  |  |  |
| 62  | ANTELOPE CR        | S1   | S1 | —    | S1   | —    | —     | —    | —   | —     | —      | S2  | S1      | S1       | —      | S1     | —      | —     | —  | 62 | —   | —   | —     | Y     | Y      | —    | —    | Y     | Y     | Y    | Y     | Y     | Y     | —     | — | — |   |   |  |  |  |       |  |  |  |  |  |  |  |  |  |      |  |  |  |  |  |  |  |  |  |       |  |  |  |  |  |  |  |  |  |
| 63  | SPANISH HOLLOW CR  | S2   | S2 | —    | S2   | —    | —     | —    | —   | —     | —      | S2  | S2      | S2       | —      | —      | —      | —     | —  | 63 | —   | —   | —     | Y     | Y      | —    | Y    | —     | Y     | Y    | Y     | Y     | Y     | Y     | — | — | — |   |  |  |  |       |  |  |  |  |  |  |  |  |  |      |  |  |  |  |  |  |  |  |  |       |  |  |  |  |  |  |  |  |  |
| 64  | RATTLESNAKE CR     | —    | —  | —    | —    | —    | —     | —    | —   | —     | —      | M2  | —       | —        | —      | —      | —      | —     | —  | 64 | —   | —   | —     | —     | —      | —    | Y    | —     | —     | Y    | Y     | —     | —     | —     | — | — |   |   |  |  |  |       |  |  |  |  |  |  |  |  |  |      |  |  |  |  |  |  |  |  |  |       |  |  |  |  |  |  |  |  |  |
| 65  | FULTON CANYON      | M2   | —  | —    | —    | —    | —     | —    | —   | —     | —      | S2  | M2      | —        | —      | —      | —      | —     | —  | 65 | —   | —   | —     | —     | —      | —    | Y    | —     | —     | Y    | —     | —     | —     | —     | — | — |   |   |  |  |  |       |  |  |  |  |  |  |  |  |  |      |  |  |  |  |  |  |  |  |  |       |  |  |  |  |  |  |  |  |  |
| 66  | CROOKED R          | M1   | M1 | —    | M1   | M1   | —     | —    | S1  | —     | —      | M1  | M1      | M1       | —      | —      | M1     | M1    | —  | 66 | —   | —   | —     | —     | —      | —    | Y    | Y     | Y     | Y    | Y     | Y     | Y     | Y     | — | — |   |   |  |  |  |       |  |  |  |  |  |  |  |  |  |      |  |  |  |  |  |  |  |  |  |       |  |  |  |  |  |  |  |  |  |
| 67  | PRINEVILLE RES     | —    | —  | —    | M1   | —    | —     | —    | —   | —     | —      | M1  | —       | —        | —      | —      | M1     | —     | —  | 67 | —   | —   | —     | Y     | —      | —    | Y    | Y     | Y     | —    | Y     | Y     | Y     | Y     | — | — | — |   |  |  |  |       |  |  |  |  |  |  |  |  |  |      |  |  |  |  |  |  |  |  |  |       |  |  |  |  |  |  |  |  |  |
| 68  | CROOKED R          | M1   | M1 | —    | M1   | —    | S1    | —    | M1  | —     | —      | M1  | M1      | M1       | —      | —      | M1     | —     | S1 | 68 | —   | —   | —     | Y     | Y      | —    | Y    | Y     | Y     | Y    | Y     | Y     | Y     | Y     | — | — | — |   |  |  |  |       |  |  |  |  |  |  |  |  |  |      |  |  |  |  |  |  |  |  |  |       |  |  |  |  |  |  |  |  |  |
| 69  | WICKIUP CR         | M2   | M2 | —    | M2   | —    | —     | —    | —   | —     | —      | M2  | M2      | M2       | —      | M2     | —      | —     | —  | 69 | —   | —   | —     | Y     | —      | —    | Y    | —     | Y     | Y    | —     | Y     | Y     | Y     | Y | — | — | — |  |  |  |       |  |  |  |  |  |  |  |  |  |      |  |  |  |  |  |  |  |  |  |       |  |  |  |  |  |  |  |  |  |
| 70  | HORSE HEAVEN CR    | M2   | M2 | —    | M2   | —    | —     | —    | —   | —     | —      | M2  | M2      | M2       | —      | M2     | —      | —     | —  | 70 | —   | —   | —     | —     | —      | —    | Y    | —     | Y     | Y    | —     | Y     | Y     | Y     | Y | — | — | — |  |  |  |       |  |  |  |  |  |  |  |  |  |      |  |  |  |  |  |  |  |  |  |       |  |  |  |  |  |  |  |  |  |
| 72  | LOST CR            | S2   | S2 | —    | M2   | —    | —     | —    | —   | —     | —      | S2  | S2      | S2       | —      | —      | —      | —     | —  | 72 | —   | —   | —     | Y     | —      | —    | Y    | —     | Y     | Y    | —     | Y     | Y     | Y     | Y | — | — | — |  |  |  |       |  |  |  |  |  |  |  |  |  |      |  |  |  |  |  |  |  |  |  |       |  |  |  |  |  |  |  |  |  |
| 73  | SHEEP ROCK CR      | —    | M2 | —    | —    | —    | —     | —    | —   | —     | —      | M2  | —       | M2       | —      | —      | —      | —     | —  | 73 | —   | —   | —     | Y     | —      | —    | Y    | —     | Y     | Y    | —     | Y     | Y     | —     | Y | — | — | — |  |  |  |       |  |  |  |  |  |  |  |  |  |      |  |  |  |  |  |  |  |  |  |       |  |  |  |  |  |  |  |  |  |
| 74  | CONANT CR          | M2   | M2 | —    | M2   | —    | —     | —    | —   | —     | —      | M2  | M2      | M2       | —      | M2     | —      | —     | —  | 74 | —   | —   | —     | —     | —      | —    | Y    | —     | Y     | Y    | —     | Y     | Y     | —     | Y | — | — | — |  |  |  |       |  |  |  |  |  |  |  |  |  |      |  |  |  |  |  |  |  |  |  |       |  |  |  |  |  |  |  |  |  |
| 75  | NEWSOME CR         | M2   | M2 | —    | —    | —    | —     | —    | —   | —     | —      | M2  | M2      | M2       |        |        |        |       |    |    |     |     |       |       |        |      |      |       |       |      |       |       |       |       |   |   |   |   |  |  |  |       |  |  |  |  |  |  |  |  |  |      |  |  |  |  |  |  |  |  |  |       |  |  |  |  |  |  |  |  |  |



## Appendix E

# NPS data base supporting maps

### Key to Pollution Types, Severity, and Information Source Codes

|        |                                                                        |
|--------|------------------------------------------------------------------------|
| TURB   | Turbidity                                                              |
| LOW-DO | Low Dissolved Oxygen                                                   |
| TEMP   | Elevated or Depressed Water                                            |
| NUTR   | Nutrients                                                              |
| PEST   | Pesticides                                                             |
| TOXIC  | Toxics                                                                 |
| SALT   | Salt Water Intrusion                                                   |
| B/V    | Bacteria/Viruses                                                       |
| RADIO  | Radioisotopes                                                          |
| GASES  | Dissolved Gases                                                        |
| SOLID  | Objectionable Discoloration, Scum, Oily Slick or Film, Floating Solids |
| SED    | Sedimentation                                                          |
| EROS   | Streambank Erosion                                                     |
| LOWFLO | Decreased Streamflow                                                   |
| DEBRIS | Excessive Debris Accumulation                                          |
| STRUCT | Insufficient Stream Structure                                          |

|        |                               |
|--------|-------------------------------|
| PLANTS | Excessive Plant Growths       |
| OTHER  | Other (specified in comments) |
| S1     | Severe problem, data          |
| S2     | Severe problem, observation   |
| S3     | Severe problem, perception    |
| M1     | Moderate problem, data        |
| M2     | Moderate problem, observation |
| M3     | Moderate problem, perception  |

### Probable Cause Disturbances Codes

|              |                                                           |
|--------------|-----------------------------------------------------------|
| SURF/VEG-DIS | Surface and Vegetation Disturbances - General             |
| SLIDES       | Landslides                                                |
| EROSION      | Surface Erosion (Sheet, Rill, Gully, Dry Ravel, & Wind)   |
| SURF-PERM    | Decreased Ground Surface Permeability                     |
| FLOW-CH      | Changes in flow Pattern & Timing (Ground & Surface Water) |
| ROAD-RUN     | Pollutants in Road Runoff                                 |
| IND-RUN      | Pollutants in Industrial/Commercial Site Runoff           |
| RIPAR-DI     | Riparian Vegetation & Bank Disturbance - General          |
| THERMAL      | Elimination of Thermal Cover to Stream                    |
| VEG-REM      | Vegetation Removal                                        |
| ROAD-LOC     | Road Location                                             |
| STRUCT       | Shore and Streambank Structures                           |
| WTR-TABLE    | Decline in Alluvial Water Table                           |

|             | Probable Cause Alterations                         |
|-------------|----------------------------------------------------|
| FLOW-ALT    | Flow Alteration/Modification - General             |
| WITHDRAW    | Water Withdrawal                                   |
| BASEFLOW    | Baseflow Depletion                                 |
| RESEV-S&R   | Reservior Storage and Releases                     |
| ALT-PHYS    | Altered Physical Characteristics of Stream         |
| PUMPING     | Pumping of Aquifers                                |
| CHAN-ALT    | Stream Channel or Water Body Alterations - General |
| BANKFILL    | Bank Filling                                       |
| DREDGE      | Dredging/Aggregate Removal                         |
| CHAN/DRAIN  | Channelization/Wetland Drainage                    |
| INSTR-STRUC | Placement of Instream Structures                   |
| BADWELL     | Improper Well Construction                         |

### Probable Cause Waste Disposal & Chemical Use

|          |                                     |
|----------|-------------------------------------|
| WST-DISP | Diffuse Waste Disposal - General    |
| DEBRIS   | Debris/Waste Dumping                |
| ANIML    | Animal Waste                        |
| HUMAN    | Human Waste                         |
| IRR-RET  | Irrigation Return Flows             |
| LCH-LNDF | Landfill Leachate                   |
| LCH-MIN  | Leaching Salts & Exposed Minerals   |
| CHEM-USE | Chemical Usage - General            |
| APPLIC   | Chemical Application                |
| LK/SPILL | Storage/Transportation Leaks/Spills |
| DISPOSAL | Disposal                            |





tuesday

# THE BULL

89th Year

Thirty-two Pages, Five Sections

Bend, Deschutes County, Oregon, March 9, 1993 Copyright 1993 The Bull

## Alarms sound on fish, water

By Scott Sonner  
AP Staff Writer

WASHINGTON — Degradation of the Pacific Northwest's waterways is nearing the point of no return, with dire consequences for salmon stocks, watersheds and the region's economy, fisheries experts told Congress today.

Existing laws are not comprehensive enough to address the needs of aquatic ecosystems and broad protection measures are needed to improve fish habitat, they said.

"The watersheds and rivers of the Pacific Northwest are presently moving toward a level of biotic impoverishment that will be in large part irreversible," said Robert Naiman.

"If we do not act now, we will stand to lose much of what makes the Pacific Northwest unique," he told a congressional subcommittee.

Three-fourths of the 300,000 miles of streams and rivers in Oregon and Washington "probably are not in good condition," Naiman estimated.

The testimony came before the House Merchant Marine and Fisheries subcommittee on environment and natural resources, which opened the first of a series of hearings on restoration of U.S. rivers and watersheds.

"We can't just look at the water in the river, we must look beyond the river's banks," said Rep. Gerry Studds, D-Mass., the panel chairman.

Much of the hearing focused on troubled Northwest salmon, which a subcommittee staff memo said is

part of a fishing industry that produces an estimated 60,000 jobs and \$1 billion in personal income annually.

"Years of mismanagement has left our forests and fisheries in shambles and our resource-dependent communities in severe financial hardship," said Rep. Jolene Unsoeld, D-Wash.

Rep. Elizabeth Furse, D-Ore., added, "Salmon are an essential ingredient in my district's lifeblood — both for their own sake and the sake of salmon fishers."

## Tanks roll at tense standoff

WACO, Texas (AP) — The increasingly volatile leader of a heavily armed cult vacillates from belligerency to peacemaker in negotiations to end a 10-day standoff, the FBI said today.

"concilable tracks" — one peaceful, one not.

Ricks said the FBI was ready for whatever force Koresh might use.

"We have sufficient firepower if

day after Koresh boasted he had enough fire power to blow lighter armored personnel carriers "40 to 50 feet into the air."

The FBI said early in the siege, after four federal agents were killed

gins said on NBC's "Today" program.

Ricks said negotiators have talked with 33 people inside the compound. "Those that we spoke with on each occasion verified that

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Wednesday

THE BULLETIN

89th Year

Forty-four Pages, Five Sections

Bend, Deschutes County, Oregon, March 31, 1993 Copyright© 1993 The Bulletin

Th

# Winter meant death to deer

By Scott Maben

Bulletin Staff Writer

Winter killed four of every 10 fawns born last year in local deer herds — four times the usual mortality rate, according to preliminary surveys by the Oregon Department of Fish and Wildlife.

The winter kill inventory for Central Oregon is only a quarter finished, but the death toll appears to be the worst in at least 35 years, said Norm Behrens, wildlife biologist for ODFW's Bend district. "Our deer are probably stressed as bad as they ever could be," he said.

The high winter kill probably will force ODFW to sell fewer fall hunting tags. Following more thorough ground and aerial surveys over the next two weeks, the department will determine tag numbers in May.

The punishment that Central Oregon's 25,000 deer suffered during one of the hardest local winters ever was evident Monday as Behrens surveyed herds on the Metolius winter range, which covers 220 square miles between Green Ridge, Lake Billy Chinook and Lower Bridge.

The animals, still low on energy, were reluctant to bolt for cover when approached by humans.

Many looked ill, their rough, discolored coats tight against rib cages. Others displayed a faltering gait. Carcasses showed where the feeble had perished, falling prey to predators.

"These deer went into the win-

ter in poor condition because of the drought. Then they had such a hard winter," Behrens said.

Deep, persistent snows buried forage even in the lowest parts of winter rangeland, preventing the smallest and weakest animals from finding enough to eat. They starved and froze.

Of 220 deer classified Monday on the Metolius range, less than a quarter were yearlings — last year's fawn crop. That means 40 percent succumbed — four times the normal death rate.

Even more may die, despite the receding snows. Deer are beginning to feed on rich spring forage — a difficult transition that can cause lethal intestinal scouring.

Additionally, this spring's fawn crop could be down because of the weakened condition of does.

It may take two to three years of favorable winters for herds to recover, Behrens said. Even then, they face one hazard unaffected by the weather: ever-increasing encroachment by humans.

Behrens said residential sprawl continues to gobble up precious chunks of winter range in Central Oregon. Deer on the Metolius range, a third of which is now privately owned, must cross more subdivisions, roads and fences every winter as they descend from the Cascades, he said.

"On a deer winter range there's really no reason for a subdivision," he said. "This is very critical range. The deer have no where else to go."



Bulletin/Scott Maben

Deer that survived snow are still struggling





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Bulletin/Scott Maben

Deer that survived snow are still struggling

EXHIBIT "K"  
G-12905  
ARLH-DeCo.  
6-29-93



STATE OF OREGON  
COUNTY OF DESCHUTES  
PERMIT TO APPROPRIATE THE PUBLIC WATERS

Also-  
see  
Extension  
Order

THIS PERMIT IS HEREBY ISSUED TO

EAGLE RIDGE DEVELOPMENT CORPORATION  
P.O. BOX 1215  
REDMOND, OREGON 97756

503-923-0807

to use the waters of THREE WELLS in the DESCHUTES RIVER BASIN for QUASI-MUNICIPAL USE.

This permit is issued approving Application G-12905. The date of priority is MAY 4, 1992. The use is limited to not more than 3.0 CUBIC FEET PER SECOND, or its equivalent in case of rotation, measured at the wells.

The wells are located as follows:

SW 1/4 NW 1/4, SECTION 14, SW 1/4 SE 1/4, SECTION 15, T 15 S, R 12 E, W.M.; WELL 1 - 120 FEET NORTH AND 980 FEET EAST FROM THE W 1/4 CORNER OF SECTION 14, WELL 2 - 962 FEET NORTH AND 823 FEET EAST, WELL 3 - 1009 FEET NORTH AND 802 FEET EAST, BOTH FROM THE S 1/4 CORNER OF SECTION 15.

The use shall conform to such reasonable rotation system as may be ordered by the proper state officer.

A description of the proposed place of use under this permit is as follows:

SW 1/4 SW 1/4  
SECTION 11  
SW 1/4 SW 1/4  
SECTION 13  
W 1/2  
SE 1/4  
SECTION 14  
E 1/2  
SECTION 15  
N 1/2 NE 1/4  
SE 1/4 NE 1/4  
SECTION 22  
N 1/2  
N 1/2 SE 1/4  
SECTION 23  
W 1/2 W 1/2  
SECTION 24

TOWNSHIP 15 SOUTH, RANGE 12 EAST, W.M.

The well shall be constructed in accordance with the General Standards for the Construction and Maintenance of Water Wells in Oregon. The works shall be equipped with a usable access port, and may also include an air line and pressure gauge adequate to determine water level elevation in the well at all times.

Measurement, recording and reporting conditions:

- A. Before water use may begin under this permit, the permittee shall install a meter or other suitable measuring device as approved by the Director. The permittee shall maintain the meter or measuring device in good working order, shall keep a complete record of the amount of water used each month and shall submit a report which includes the recorded water use measurements to the Department annually or more frequently as may be required by the Director.

Application G-12905

Water Resources Department

PERMIT G-11762



Further, the Director may require the permittee to report general water use information, including the place and nature of use of water under the permit.

- B. The permittee shall allow the watermaster access to the meter or measuring device; provided however, where the meter or measuring device is located within a private structure, the watermaster shall request access upon reasonable notice.

The PERMIT HOLDER shall obtain a static water-level measurement for each well during MARCH of each year and report the measurement to the Department within thirty days. The measurement shall be made by a certified water-rights examiner, registered professional geologist, or professional engineer. Water levels shall be reported as depth-to-water below ground level and shall be accompanied by supporting calculations. If a well listed on this permit displays a total static water-level decline of 10 or more feet over any period of years, when compared to the reference level, then the PERMIT HOLDER shall discontinue use of, or reduce the rate or volume of withdrawal, from the well(s). Such action shall be taken until the water level recovers to above the 10-foot decline level or until the Department determines, based on the PERMIT HOLDER'S or the Department's data and analysis, that no action is necessary because the aquifer in question can sustain the observed declines without adversely impacting the resource or senior water rights. The reference level for water-level declines shall be the first (March 1995) or second annual (March 1996), whichever is higher, measurement taken after water use begins under the terms of this permit. The PERMIT HOLDER shall in no instance allow excessive decline to occur within the aquifer as a result of use under this permit.

In the event of a request for a change in point of appropriation, an additional point of appropriation or alteration of the appropriation facility associated with this authorized diversion, the quantity of water allowed herein, together with any other right, shall not exceed the capacity of the facility at the time of perfection of this right.

This right is limited to any deficiency in the available supply of any prior right existing for the same land.

Prior to receiving a certificate of water right, the permit holder shall submit the results of a pump test meeting the department's standards, to the Water Resources Department. The Director may require water level or pump test results every ten years thereafter.

Actual construction work shall begin on or before May 31, 1995 and shall be completed on or before October 1, 1997. Complete application of water shall be made on or before October 1, 1998.

Failure to comply with any of the provisions of this permit may result in action including, but not limited to, restrictions on the use, civil penalties, or cancellation of the permit.

This permit is for beneficial use of water without waste. The water user is advised that new regulations may require use of best practical technologies or conservation practices to achieve this end.

By law, the land use associated with this water use must be in compliance with statewide land-use goals and any local acknowledged land-use plan.

The use of water shall be limited when it interferes with any prior surface or ground water rights.

*Replaced by  
Extension  
Order.*



PAGE THREE

The Water Resources Commission has found that the proposed use of water described by this permit, as conditioned, will not impair or be detrimental to the public interest on April 20, 1994.

Issued this date, May 3<sup>1</sup>, 1994.

/s/ MARTHA O. PAGEL

Water Resources Department  
Martha O. Pagel  
Director

T-8438

Application G-12905 Water Resources Department  
Basin 5 Volume 1 Deschutes River & Misc.  
MGMT.CODE 4GG

PERMIT G-11762  
District 11



Oregon Water Resources Department  
Water Rights Division

Water Rights Application  
Number G-12905

**Final Order**  
**Extension of Time for Permit Number G-11762**

**Appeal Rights**

**This is a final order in other than contested case.** This order is subject to judicial review under ORS 183.484. Any petition for judicial review must be filed within the 60 day time period specified by ORS 183.484(2). Pursuant to ORS 536.075 and OAR 137-004-0080 you may either petition for judicial review or petition the Director for reconsideration of this order. A petition for reconsideration may be granted or denied by the Director, and if no action is taken within 60 days following the date the petition was filed, the petition shall be deemed denied.

**Application History**

The Department issued Permit G-11762 on May 31, 1994. The permit called for completion of construction by October 1, 1997, and complete application of water to beneficial use by October 1, 1998. On April 3, 2007, the Cline Butte Utility Company submitted an application to the Department for an extension of time for Permit G-11762. In accordance with OAR 690-315-0050(2), on September 4, 2007, the Department issued a Proposed Final Order proposing to extend the time to fully apply water to beneficial use to October 1, 2008. The protest period closed October 19, 2007, in accordance with OAR 690-315-0060(1). No protest was filed.

At time of issuance of the Proposed Final Order the Department concluded that, based on the factors demonstrated by the applicant, the permit may be extended subject to the following conditions:

**CONDITIONS**

1. **Static Water Level Measurement and Reporting Condition**

*Complied* The Department requires the water user to measure and report annual static water levels for each well on the permit. Or the water user can measure other wells in close proximity to the permitted wells, if the Department's Groundwater Staff determines that the substitute observation wells will provide adequate data to assess the impacts from the permitted wells. The static water level shall be measured in the month of March, ~~beginning in the year 2008~~. Reports shall be submitted to the Department within 30 days of measurement.



The permittee shall submit an initial March static water-level measurement once well construction is complete and annual measurements thereafter. Annual measurements are required whether or not the well is used. Reference water-level measurements for determining water-level declines on this permit are as follows: Well #6: 518'; Well #7: 518'; and Well #8 312'. Or, the first annual measurement at the substitute observation wells will establish the reference levels against which future measurements will be compared. The Director may require the user to measure and report additional water levels each year if more data is needed to evaluate the aquifer system.

All measurements shall be made by a certified water rights examiner, registered professional geologist, registered professional engineer, licensed well constructor, or pump installer licensed by the Construction Contractors Board. Measurements shall be submitted on forms provided by, or specified by, the Department. Measurements shall only be made using an electric tape or steel tape that is accurate to at least the standards specified in OAR 690-217-0045. The Department requires the individual performing the measurement to:

- A. Associate each measurement with an owner's well name or number and a Department well log ID; and
- B. Report water levels to at least the nearest tenth of a foot as depth-to-water below ground surface; and
- C. Specify the method of measurement; and
- D. Certify the accuracy of all measurements and calculations submitted to the Department.

The water user shall discontinue use of, or reduce the rate of volume of withdrawal from the well if annual water-level measurements reveal a water-level decline of 10 or more feet.

The period of restricted use shall continue until the water level rises above the decline level which triggered the action or the Department determines, based on the permittee's and/or the Department's data and analysis, that no action is necessary because the aquifer in question can sustain the observed declines without adversely impacting the resource or causing substantial interference with senior water rights. The water use shall not allow excessive decline, as defined in Commission rules, to occur within the aquifer as a result of use under this permit

The applicant has demonstrated good cause for the permit extension pursuant to ORS 537.630, 539.010(5) and OAR 690-315-0080(3).

### Order

The extension of time for Application G-12905, Permit G-11762, therefore, is approved subject to conditions contained herein. The deadline for applying water to full beneficial use is extended to October 1, 2008.



DATED: November 1, 2007

---

Dwight French, Administrator of  
Water Rights and Adjudications  
*for*  
Phillip C. Ward, Director

- 
- If you have any questions about statements contained in this document, please contact Kim French at (503) 986-0813.
  - If you have other questions about the Department or any of its programs, please contact our Water Resources Customer Service Group at (503) 986-0900.
-



## **Mailing List for Extension FO Copies**

---

Note: Include a copy of the "Important Notice" document along with the original copy of the Final Order being sent to the permit holder.

---

**FO Date: November 1, 2007**

### **Copies Mailed**

**Application #G-12905**

By: \_\_\_\_\_

**Permit #G-11762**

On: \_\_\_\_\_

### **Original mailed to permit holder:**

Cline Butte Utility Company  
Attn: Todd Samples  
1230 Golden Pheasant  
Redmond, OR 97756

### **Copies sent to:**

1. WRD - App. File #G-12905 / Permit #G-11762
2. WRD - Watermaster District: 11, Jeremy Giffin
3. WRD - Support Staff, Salem...*Permit record update*
4. Thomas A. Walker, P.E., CWRE, 920 SW Emkay, Suite C100 Bend, OR 97702-1041

CASEWORKER: KRF



# Proof to the Satisfaction Worksheet (CWRE)

Application # G-12905  
Permit # G-11762  
Transfer # \_\_\_\_\_



This purpose of this worksheet is to document the extent to which proof has been made for the referenced file. Staff recommendation is based on the Claim of Beneficial Use submitted.

## Map Review (check map for the following features/items):

- ☒ NO Permanent quality map (mylar or linen) *OK*
- ☒ CWRE stamp and signature
- ☒ Disclaimer
- ☒ Application & permit #; or transfer #
- ☒ North arrow
- ☒ Township, range and section
- ☒ Appropriate scale (1" = 1320', 1" = 400', or scale of assessor's map)
- ☒ Source
- ☒ Point(s) of diversion/appropriation
- ☒ Point(s) of diversion/appropriation (coordinates) Check with scale
- ☒ NO Conveyances (pump, pipelines, ditches, etc.) Permanent features shown? *OK*
- ☒ Place of use (1/4 1/4, DLC, or Gov Lot; if irrigation, # of acres in each legal government subdivision)

*4 in 8*

*PRE - 2004 Jul  
Cut will only reflect permitted area  
Section 16 - not permitted  
shown on map*

*Reservoir not shown*

*10/1/08 - "c" date extension*

## Report Review:

- ☒ Application & permit #; or transfer #
- ☒ CWRE stamp and signature
- ☒ Time limits
- ☒ Date of survey
- ☒ Type of use
- ☒ Extent of use
- ☒ Source(s) of water
- ☒ Rate and Duty
- ☒ Diversion rate for each use
- ☒ Description of conveyances system (from POD to POU)
- ☒ Diversion works description (pump make, serial model, capacity, and description)
- ☒ System capacity
  - ☒ Calculated capacity of system
  - OR
  - ☒ Measured amount of use
- ☒ Permit conditions
  - ☒ Fish screening
  - ☒ Meter/measuring device
  - ☒ Water use reporting
  - ☒ Other conditions
- ☒ Pump Test

*See Amended COBU requesting water into a reservoir but NO description of Reservoir.*

*Proposed Cut from for 3.0 cfs for 3 wells.*

*Development still underway for water system.*

*Per Amended COBU:*  
① Well #6 pumped @ 1-30 cfs for 24 hours on Aug 1-2, 2007  
② Well #7 pumped for 24 hours on Aug 1-2, 2007 @ 275 gpm +/-

*NOT AN ISSUE - Well #8 was pumped for 24 hour period on Aug 1-2, 2007. It is unknown how many hours the well was pumped, but @ the rate indicated in the claim, could have been for 5.9 hours.*

*Well #6 + Well #7 = 3.61 cfs  
Well #8 pumped during same period.*



**Other:**

- ☒ Conflict Check  
☒ Check Ownership

**Staff Recommendations:**

\_\_\_\_\_ Staff recommends that Proof to the Satisfaction has been established to the full extent as described in the permit or transfer order.

☒ Staff recommends that Proof to the Satisfaction has been not been established to the full extent as described in the permit or transfer order and would recommend the following limitations: less area

\_\_\_\_\_ Staff recommends that Proof to the Satisfaction has not been established for the following reasons: \_\_\_\_\_

**Proposed Actions:**

Send letter requesting the following items/information: \_\_\_\_\_

Send letter recommending extension to cure deficiencies: \_\_\_\_\_



# EAGLE CREST DESTINATION RESORT

WATER RIGHTS MAP  
FINAL PROOF SURVEY  
JUNE, 2004  
(UPDATED JULY, 2008)

LOCATED WITHIN TOWNSHIP 15 SOUTH, RANGE 12 EAST, W.M.

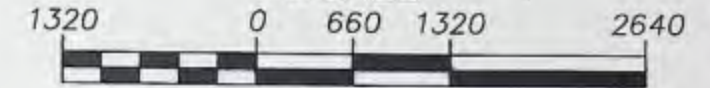
RECEIVED

JUL 25 2008

WATER RESOURCES DEPT  
SALEM, OREGON

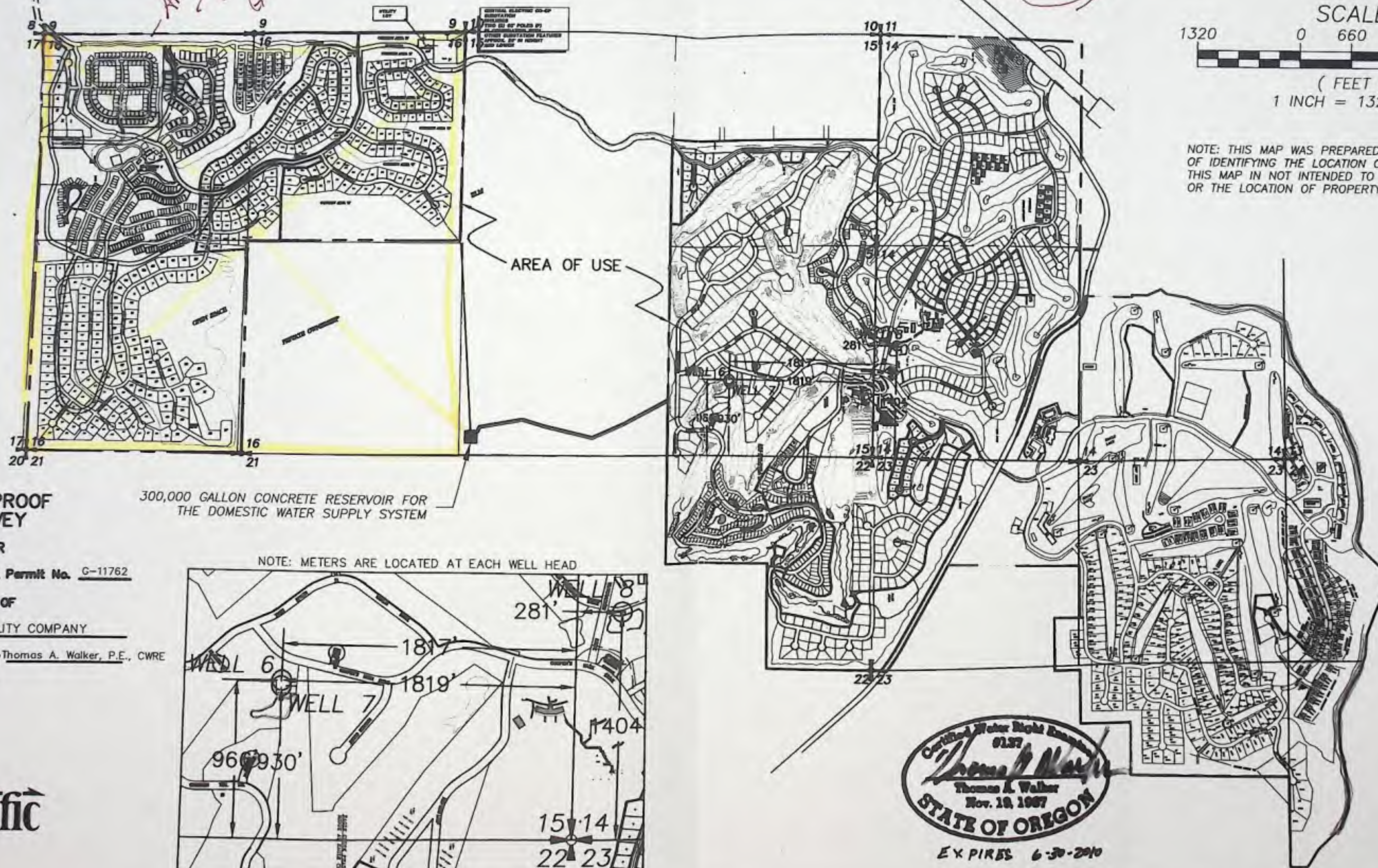


SCALE



( FEET )  
1 INCH = 1320 FT

NOTE: THIS MAP WAS PREPARED FOR THE PURPOSE  
OF IDENTIFYING THE LOCATION OF WATER RIGHTS.  
THIS MAP IS NOT INTENDED TO PROVIDE DIMENSIONS  
OR THE LOCATION OF PROPERTY OWNERSHIP LINES.



FINAL PROOF  
SURVEY

UNDER

Application No. G-12905 Permit No. G-11762

IN NAME OF

CLINE BUTTE UTILITY COMPANY

Surveyed JUNE, 2004, by Thomas A. Walker, P.E., CWRE

UPDATED JULY 14, 2008

7/14/2008  
EC04FPS.DWG

**WHPacific**

920 SW Emory Dr  
Bend, OR 97702  
541-308-4255 Fax 541-308-4229  
www.whpacific.com

DETAIL



STATE OF OREGON  
COUNTY OF DESCHUTES  
CERTIFICATE OF WATER RIGHT

THIS CERTIFICATE ISSUED TO

CLINE BUTTE UTILITY CO.  
1140 NUTCRACKER RD  
REDMOND OR 97756

STATIC  
Levels

confirms the right to use the waters of THREE WELLS (WELLS 6, 7 AND 8) in the Deschutes Basin for QUASI-MUNICIPAL USE.

This right was perfected under Permit G-11762. The date of priority is MAY 4, 1992. The amount of water to which this right is entitled is limited to an amount actually used beneficially, and shall not exceed 3.0 CUBIC FEET PER SECOND or its equivalent in case of rotation, measured at the well.

The wells are located as follows:

| Well | Twp  | Rng  | Mer | Sec | Q-Q   | Measured Distances                                          |
|------|------|------|-----|-----|-------|-------------------------------------------------------------|
| 8    | 15 S | 12 E | WM  | 14  | NW SW | 1404 FEET NORTH & 281 FEET EAST FROM SW1 CORNER, SECTION 14 |
| 6    | 15 S | 12 E | WM  | 15  | SW SE | 966 FEET NORTH & 1817 FEET WEST FROM SE CORNER, SECTION 15  |
| 7    | 15 S | 12 E | WM  | 15  | SW SE | 930 FEET NORTH & 1819 FEET WEST FROM SE CORNER, SECTION 15  |

A description of the place of use to which this right is appurtenant is as follows:

| Twp  | Rng  | Mer | Sec | Q-Q   |
|------|------|-----|-----|-------|
| 15 S | 12 E | WM  | 11  | SW SW |
| 15 S | 12 E | WM  | 13  | SW SW |
| 15 S | 12 E | WM  | 14  | NE NW |
| 15 S | 12 E | WM  | 14  | NW NW |
| 15 S | 12 E | WM  | 14  | SW NW |
| 15 S | 12 E | WM  | 14  | SE NW |
| 15 S | 12 E | WM  | 14  | NE SW |
| 15 S | 12 E | WM  | 14  | NW SW |
| 15 S | 12 E | WM  | 14  | SW SW |
| 15 S | 12 E | WM  | 14  | SE SW |

**NOTICE OF RIGHT TO PETITION FOR RECONSIDERATION OR JUDICIAL REVIEW**

This is an order in other than a contested case. This order is subject to judicial review under ORS 183.484. Any petition for judicial review must be filed within the 60 day time period specified by ORS 183.484(2). Pursuant to ORS 536.075 and OAR 137-004-0080, you may either petition for judicial review or petition the Director for reconsideration of this order. A petition for reconsideration may be granted or denied by the Director, and if no action is taken within 60 days following the date the petition was filed, the petition shall be deemed denied. In addition, under ORS 537.260 any person with an application, permit or water right certificate subsequent in priority may jointly or severally contest the issuance of the certificate at any time before it has issued, and after the time has expired for the completion of the appropriation under the permit, or within three months after issuance of the certificate.



| Twp  | Rng  | Mer | Sec | Q-Q   |
|------|------|-----|-----|-------|
| 15 S | 12 E | WM  | 14  | NE SE |
| 15 S | 12 E | WM  | 14  | NW SE |
| 15 S | 12 E | WM  | 14  | SW SE |
| 15 S | 12 E | WM  | 14  | SE SE |
| 15 S | 12 E | WM  | 15  | NE NE |
| 15 S | 12 E | WM  | 15  | NW NE |
| 15 S | 12 E | WM  | 15  | SW NE |
| 15 S | 12 E | WM  | 15  | SE NE |
| 15 S | 12 E | WM  | 15  | NE SE |
| 15 S | 12 E | WM  | 15  | NW SE |
| 15 S | 12 E | WM  | 15  | SW SE |
| 15 S | 12 E | WM  | 15  | SE SE |
| 15 S | 12 E | WM  | 22  | NE NE |
| 15 S | 12 E | WM  | 22  | NW NE |
| 15 S | 12 E | WM  | 22  | SE NE |
| 15 S | 12 E | WM  | 23  | NE NE |
| 15 S | 12 E | WM  | 23  | NW NE |
| 15 S | 12 E | WM  | 23  | SW NE |
| 15 S | 12 E | WM  | 23  | SE NE |
| 15 S | 12 E | WM  | 23  | NE NW |
| 15 S | 12 E | WM  | 23  | NW NW |
| 15 S | 12 E | WM  | 23  | SW NW |
| 15 S | 12 E | WM  | 23  | SE NW |
| 15 S | 12 E | WM  | 23  | NE SE |
| 15 S | 12 E | WM  | 23  | NW SE |
| 15 S | 12 E | WM  | 24  | NW NW |
| 15 S | 12 E | WM  | 24  | SW NW |
| 15 S | 12 E | WM  | 24  | NW SW |
| 15 S | 12 E | WM  | 24  | SW SW |

The wells shall be maintained in accordance with the General Standards for the Construction and Maintenance of Water Wells in Oregon. The works shall be equipped with a usable access port, and may also include an air line and pressure gauge adequate to determine water level elevation in the wells at all times.

Measurement, recording and reporting conditions:

- A. The water user shall maintain the meter or measuring device in good working order, shall keep a complete record of the amount of water used each month, and shall submit a report which includes the recorded water use measurements to the Department annually or more frequently as may be required by the Director. Further, the Director may require the water user to report general water-use information, including the place and nature of use of water under the right.
- B. The water user shall allow the watermaster access to the meter or measuring device; provided however, where the meter or measuring device is located within a private structure, the watermaster shall request access upon reasonable notice.

The water user shall obtain a static water-level measurement for each well during March of each year and report the measurement to the Department within thirty days. The measurement shall be made by a certified water rights examiner, registered professional geologist, or professional engineer. Water levels shall be reported as depth-to-water below ground level and shall be accompanied by supporting calculations. If a well listed on this right displays a total static water-level decline of 10 or more feet over any period of years, when compared to the reference level, then the water user shall



discontinue use of, or reduce the rate or volume of withdrawal from, the wells. Such action shall be taken until the water level recovers to above the 10-foot decline level or until the Department determines, based on the water user or the Department's data and analysis, that no action is necessary because the aquifer in question can sustain the observed declines without adversely impacting the resource or senior water rights. (The reference level for water-level declines shall be the first (March 1995) or second annual (March 1996), whichever is higher, measurement taken after water use begins under the terms of this right.) The water user shall in no instance allow excessive decline to occur within the aquifer as a result of use under this right.

In the event of a request for a change in point of appropriation, an additional point of appropriation or alternation of the appropriation facility associated with this authorized diversion, the quantity of water allowed herein, together with any other right, shall not exceed the capacity of the facility at the time of perfection of this right.

This right is limited to any deficiency in the available supply of any prior right existing for the same land.

The Director may require water level or pump tests every ten years.

Failure to comply with any of the provisions of this right may result in action including, but not limited to, restrictions on the use, civil penalties, or cancellation of the right.

This right is for the beneficial use of water without waste. The water user is advised that new regulations may require the use of best practical technologies or conservation practices to achieve this end.

By law, the land use associated with this water use must be in compliance with statewide land-use goals and any local acknowledged land-use plan.

The right to the use of the water for the above purpose is restricted to beneficial use on the lands or place of use described.

The use of water shall be limited when it interferes with any prior surface or ground water rights.

Issued \_\_\_\_\_.

\_\_\_\_\_  
Phillip C. Ward, Director  
Water Resources Department



# Mailing List for Certificate

Scheduled Mailing Date:

Application: G-12905

Permit: G-11762

Certificate: \*\*\*\*\*

Permit/Certificate Holder:

CLINE BUTTE UTILITY CO.  
1140 NUTCRACKER RD  
REDMOND OR 97756

|                      |         |
|----------------------|---------|
| <b>Copies Mailed</b> |         |
| <b>by:</b>           | _____   |
|                      | (STAFF) |
| <b>on:</b>           | _____   |
|                      | (DATE)  |

**Copies of Final Certificate to be sent to:**

1. Watermaster District 11, Jeremy T. Giffin
2. Data Center (include copy of map)
3. Water Availability
4. Vault
5. File

**Other persons to receive copies: (include map):**

1. Thomas A. Walker, CWRE



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**MEMORANDUM**

---

**TO:** DWIGHT FRENCH, ADMINISTRATOR, WATER RIGHTS & ADJUDICATION  
**FROM:** JERRY GAINES, CERTIFICATE SECTION  
**SUBJECT:** COBU FOR CLINE BUTTE UTILITY COMPANY (EAGLE CREST)  
**DATE:** JULY 10, 2008

---

**APPLICATION G-12905, PERMIT G-11762:**

**ISSUES:**

**MAP:**

NOT ON MYLAR OR LINEN (REF: OAR 690-014-0170(1) & 690-310-0050)

NO PERMANENT FEATURES SHOWN, TO INCLUDE THE RESERVOIR (REF: OAR 690-014-0100(4))

**REPORT:**

NO DEMONSTRATION OF THE 4 HOUR IN 8 HOUR PUMPING TEST TO DEMONSTRATE BENEFICIAL USE.

**APPLICATION G-14857, PERMIT G-13856:**

**MAP:**

NOT ON MYLAR OR LINEN (REF: OAR 690-014-0170(1) & 690-310-0050)

NO PERMANENT FEATURES SHOWN, TO INCLUDE THE RESERVOIR (REF: OAR 690-014-0100(4))

MAP NEEDS TO SHOW LOCATION OF THE METERS (REF: OAR 690-014-0170(4))

SCALE OF MAP NOT WITHIN GUIDELINES (REF: OAR 690-014-0170(1) & OAR 690-310-0050)

**REPORT:**

TAX LOTS NOT LISTED (REF: OAR 690-310-0050(4)) OR REQUEST A WAIVER PER 690-014-0170(7))

CAN NOT DETERMINE IF BOTH METERS, AS REQUIRED BY THE PERMIT, WERE INSTALLED.



Oregon Water Resources Department  
Water Rights Division

Water Rights Application  
Number G-12905

**Final Order**  
**Extension of Time for Permit Number G-11762**

**Appeal Rights**

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- A. Associate each measurement with an owner's well name or number and a Department well log ID; and
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- C. Specify the method of measurement; and
- D. Certify the accuracy of all measurements and calculations submitted to the Department.

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The period of restricted use shall continue until the water level rises above the decline level which triggered the action or the Department determines, based on the permittee's and/or the Department's data and analysis, that no action is necessary because the aquifer in question can sustain the observed declines without adversely impacting the resource or causing substantial interference with senior water rights. The water use shall not allow excessive decline, as defined in Commission rules, to occur within the aquifer as a result of use under this permit

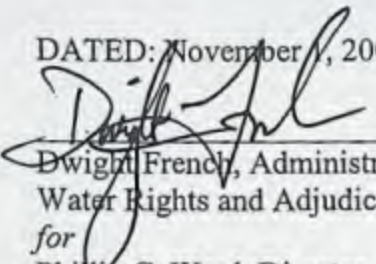
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### Order

The extension of time for Application G-12905, Permit G-11762, therefore, is approved subject to conditions contained herein. The deadline for applying water to full beneficial use is extended to October 1, 2008.



DATED: November 1, 2007

  
Dwight French, Administrator of  
Water Rights and Adjudications  
for  
Phillip C. Ward, Director

- 
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  - If you have other questions about the Department or any of its programs, please contact our Water Resources Customer Service Group at (503) 986-0900.
-



## Mailing List for Extension FO Copies

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Note: Include a copy of the "Important Notice" document along with the original copy of the Final Order being sent to the permit holder.

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**FO Date: November 1, 2007**

### Copies Mailed

**Application #G-12905**

**Permit #G-11762**

By: MS  
On: 11/1/07

### Original mailed to permit holder:

Cline Butte Utility Company  
Attn: Todd Samples  
1230 Golden Pheasant  
Redmond, OR 97756

### Copies sent to:

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2. WRD - Watermaster District: 11, Jeremy Giffin
3. WRD - Support Staff, Salem...*Permit record update*
4. Thomas A. Walker, P.E., CWRE, 920 SW Emkay, Suite C100 Bend, OR 97702-1041

CASEWORKER: KRF



**Oregon Water Resources Department  
Water Rights Division**

**Application for Extension of Time**

In the Matter of the Application for an Extension of Time    )  
for Permit G-11762, Water Right Application G-12905,        )  
in the name of Cline Butte Utility Company                    )        PROPOSED FINAL ORDER

---

**Permit Information**

**Application File G-12905 / Permit G-11762**

Basin 05 – Deschutes Basin / Watermaster District 11

Date of Priority: May 4, 1992

**Authorized Use of Water**

|                  |                                          |
|------------------|------------------------------------------|
| Source of Water: | Three Wells in the Deschutes River Basin |
| Purpose or Use:  | Quasi-Municipal                          |
| Maximum Rate:    | 3.0 Cubic Feet per Second                |

---

**This Extension of Time request is being processed in accordance with Oregon  
Administrative Rule Chapter 690, Division 315.**

***Please read this Proposed Final Order in its entirety as it contains  
additional conditions not included in the original permit.***

This Proposed Final Order applies only to Permit G-11762, water right Application G-12905. A copy of Permit G-11762 is enclosed as Attachment 1.



## **Summary of Proposed Final Order for Extension of Time**

### **The Department proposes to:**

- grant an extension of time to apply water to full beneficial use from October 1, 1998 to October 1, 2008; and
- make the extension of time subject to certain conditions as set forth below.

### **ACRONYM QUICK REFERENCE**

Department – Oregon Department of Water Resources  
Cline Butte – Cline Butte Utility Company  
ODFW – Oregon Department of Fish and Wildlife  
PFO – Proposed Final Order  
WMCP – Water Management and Conservation Plan

#### Units of Measure

cfs – cubic feet per second  
gpm – gallons per minute  
mgd – million gallons per day

### **AUTHORITY**

**Generally, see ORS 537.630 and OAR Chapter 690 Division 315.**

**ORS 537.630(1)** provides in pertinent part that the Oregon Water Resources Department (Department) may, for good cause shown, shall order and allow an extension of time, for the completion of the well or other means of developing and securing the ground water or for complete application of water to beneficial use. In determining the extension, the department shall give due weight to the considerations described under ORS 539.010 (5) and to whether other governmental requirements relating to the project have significantly delayed completion of construction or perfection of the right.

**ORS 539.010(5)** provides in pertinent part that the Water Resources Director, for good cause shown, may extend the time within which the full amount of the water appropriated shall be applied to a beneficial use. This statute instructs the Director to consider: the cost of the appropriation and application of the water to a beneficial purpose; the good faith of the appropriator; the market for water or power to be supplied; the present demands therefore; and the income or use that may be required to provide fair and reasonable returns upon the investment.

**OAR 690-315-0050(5)** authorizes the Department to include in an extension order, but is not limited to, any condition or provision needed to: ensure future diligence; mitigate the effects of the subsequent development on competing demands on the resource; and periodically document the continued need for the permit.

**OAR 690-315-0080** provides in pertinent part that the Department shall make findings to determine if an extension of time for municipal and/or quasi-municipal water use permit holders may be approved to complete construction and/or apply water to full beneficial use.



## **FINDINGS OF FACT**

### **Background**

1. Permit G-11762 was granted to Eagle Ridge Development Corporation by the Department on May 31, 1994. The permit authorizes the use of up to 3.0 cfs of water from three wells within the Deschutes River Basin, for quasi-municipal use. It specified that construction of the water development project should be completed by October 1, 1997, and that complete application of water was to be made on or before October 1, 1998.
2. The permit holder, Cline Butte Utility Company (Cline Butte) submitted an "Application for Extension of Time" to the Department on September 8, 1997, requesting the time to complete construction of the water system be extended from October 1, 1997 to October 1, 1998 and the time to apply water to full beneficial use under the terms of Permit G-11762 be extended from October 1, 1998 to October 1, 1999. This is the first extension of time request for Permit G-11762.
3. On April 17, 2001 the Department approved an assignment of Permit G-11762 from Eagle Ridge Development Corporation to Cline Butte Utility Company. Cline Butte Development Company is a private water company at the Eagle Ridge Destination Resort and is a subsidiary of Eagle Crest, Inc.
4. Due to an ongoing permit extension rulemaking, the Department placed all pending Applications for Extension of Time for municipal and quasi-municipal permits on hold and did not require municipal and quasi-municipal water use permit holders to submit Applications for Extension of Time until the new rules were adopted.
5. Municipal and quasi-municipal water use permit extension rules OAR 690-315-0070 through 690-315-0100 were adopted by the Water Resources Commission November 1, 2002, were further revised, filed with the Secretary of State, and became effective on November 22, 2005.
6. The permit holder, Cline Butte Utility Company (Utility Company), submitted a new "Application for Extension of Time," consistent with Division 315 rules, to the Department on January 24, 2003, requesting the time to apply water to full beneficial use under the terms of Permit G-11762 be extended from October 1, 1998 to October 1, 2012.
7. Notification of Cline Butte's Application for Extension of Time for Permit G-11762 was published in the Department's Public Notices dated February 4, 2003 and June 12, 2007. No public comments were received regarding the extension application.
8. On April 2, 2007, the permit holder submitted additional information to supplement their Application for Extension of Time and changed the extended date for complete application of water from October 1, 2012 to October 1, 2008.

### **Review Criteria for Municipal Quasi-Municipal Water Use Permits [OAR 690-315-0080(1)]**

*The time limits to complete construction and/or apply water to full beneficial use may be extended if the Department finds that the permit holder has met the requirements set forth under OAR 690-315-0080. This*



determination shall consider the applicable requirements of ORS 537.230<sup>1</sup>, 537.248<sup>2</sup>, 537.630<sup>3</sup> and/or 539.010(5)<sup>4</sup>

**Complete Extension of Time Application [OAR 690-315-0080(1)(a)]**

8. On September 8, 1997, the Department received a completed Application for Extension of Time and the fee required by ORS 536.050 from the permit holder.

**Start of Construction [OAR 690-315-0080(1)(b)]**

9. Actual construction of Well 6 began September 18, 1991, which was within the time specified in the permit.

**Duration of Extension [OAR 690-315-0080(1)(c)(d)]**

*Under OAR 690-315-0080(1)(c), (d), in order to approve an extension of time for municipal and quasi-municipal water use permits the Department must find that the time requested is reasonable and the applicant can complete the project within the time requested.*

10. The remaining work to be accomplished under Permit G-11762 consists of filing a permit amendment and full beneficial use of water.
11. Cline Butte has appropriated the total 3.0 cfs of water allowed under Permit G-11762 for quasi-municipal purposes.
12. In addition to the 3.0 cfs of water allowed under Permit G-11762 (Wells 6, 7 and 8), Cline Butte holds the following right:
  - Permit G-13856 for 3.34 cfs of water for quasi-municipal use from Well 9 within the Deschutes River Basin.Cline Butte's permits total 6.34 cfs of ground water.
13. Eagle Ridge Development Corporation also holds Permit G-11313 for 4.28 cfs of water for irrigation and commercial use from the three wells (Wells 6, 7 and 8) listed in permit G-11762. The pumps are sized to deliver water simultaneously to both permits G-13856 and G-11313.
14. Cline Butte currently utilizes a peak day demand of 3.65 cfs of water for quasi-municipal purposes, from Permit G-13856 and Permit G-11762.
15. The 2007 population served by Cline Butte is approximately 3,400 persons during peak summertime occupancy. According to the 2004 Water Management and Conservation Plan (Page 7, Table 3), the projected population is expected to be 6,175 at build-out.
16. Based on Cline Butte's population of 3,400 persons and a peak day demand of 3.65 cfs of water in 2007, their projected peak day demand calculates to be approximately 6.63 cfs of

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<sup>1</sup> ORS 537.230 applies to surface water permits only.

<sup>2</sup> ORS 537.248 applies to reservoir permits only.

<sup>3</sup> ORS 537.630 applies to ground water permits only.

<sup>4</sup> ORS 537.010(5) applies to surface water and ground water permits.



water at build-out.

17. Full development of Permit G-11672 is needed to address the present and future water demand of Cline Butte.
18. Cline Butte Utility Company's request for an extension of time until October 1, 2008 to apply water to full beneficial use under the terms of Permit G-11672 is both reasonable and necessary.

**Good Cause [OAR 690-315-0080(1)(e) and (3)(a-g) and (4)]**

*The Department's determination of good cause shall consider the requirements set forth under OAR 690-315-0080(3).*

**Reasonable Diligence and Good Faith of the Appropriator [OAR 690-315-0080(3)(a),(c) and (4)]**

*Reasonable diligence and good faith of the appropriator must be demonstrated during the permit period or prior extension period as a part of evaluating good cause in determining whether or not to grant an extension. In determining the reasonable diligence and good faith of a municipal or quasi-municipal water use permit holder, the Department shall consider activities associated with the development of the right including, but not limited to, the items set forth under OAR 690-315-0080(4) and shall evaluate how well the applicant met the conditions of the permit or conditions of a prior extension period.*

19. Prior to the issuance of Permit G-11762 on May 31, 1994 Cline Butte constructed wells 6 and 7.
20. Work was accomplished (specified in the Application for Extension of Time) during the original development time frame under Permit G-13856.
21. Since October 1, 1998, the Utility Company has accomplished the following:
  - a WMCP was submitted to the Department in January 2001 and updated December, 2004;
  - installed 27,000 feet of water distribution line and all appurtenances; and
  - water meters were installed on each well.
22. As of April 3, 2007, the permit holder has invested \$1,610,000, which is 99.7 percent of the total projected cost for complete development of this project. The permit holder anticipates an additional \$5,000 is needed for the completion of this project.
23. Since the issuance of Permit G-11762 on May 31, 1994, the total 3.0 cfs allowed has been appropriated from Wells 6, 7 and 8 for beneficial quasi-municipal purposes under the terms of this permit.
24. The Department has considered Cline Butte compliance with conditions, and did not identify any concerns.

**Financial Investment and Cost to Appropriate and Apply Water to a Beneficial Purpose [OAR 690-315-0080(3)(b)]**

25. As of April 3, 2007, the permit holder has invested \$1,610,000, which is 99.7 percent of the



total projected cost for complete development of this project. The permit holder anticipates an additional \$5,000 is needed for the completion of this project.

**The Market and Present Demands for Water [OAR 690-315-0080(3)(d)]**

26. As described in Findings 11 through 17, Cline Butte has indicated, and the Department finds that Cline Butte must rely on full development of all its current ground water rights within the Deschutes River Basin.
27. Cline Butte projects a population increase, from 3400 to 6175 according to their December 2004 Water Management and Conservation Plan (Page 7, Table 3).
28. Given the current water supply situation of the City, as well as current and expected demands, there is a market and present demand for the water to be supplied under Permit G-11762.
29. Permit G-11762 contains a condition that states the use of water from any well listed under this permit must be discontinued, or the rate of volume of withdrawal reduced if the well displays a total water level decline of 10 or more feet. On July 10, 2007, the Department's Ground Water Section determined that the 10-foot decline condition had been triggered, based on data from a nearby State Observation Well. However, it is the opinion of the Department's Ground Water Section that much of the decline is related to climate (e.g. reduced natural recharge).
30. In accordance with OAR 690-315-0050(5), and as specified in the "Conditions" section of this PFO (Item 1), the Department has determined that this PFO shall be conditioned to require a Static Water Level Measurement Condition to ensure further diligence under Permit G-11762.

**Fair Return Upon Investment [OAR 690-315-0080(3)(e)]**

31. Use and income from the permitted water development project result in reasonable returns upon the investment made in the project to date.

**Other Governmental Requirements [OAR 690-315-0080(3)(f)]**

32. Delay in the development of this project was not caused by any other governmental requirements.

**Events which Delayed Development under the Permit [OAR 690-315-0080(3)(g)]**

33. Delay of development under Permit G-11762 was due, in part, to the size and scope of the municipal water system, which was designed to be phased in over a period of years and for time necessary to submit a permit amendment.

**CONCLUSIONS OF LAW**

1. The Cline Butte Utility Company is entitled to apply for an extension of time to complete construction and/or completely apply water to the full beneficial use pursuant to ORS 537.630(2).



2. Cline Butte has submitted a complete extension application form and the fee specified under ORS 536.050(1)(k), as required by OAR 690-315-0080(1)(a).
3. The applicant demonstrated that actual construction on the project began within the time specified in the permit, as required by OAR 690-315-0080(1)(b).
4. The time requested to apply water to full beneficial use is reasonable, as required by OAR 690-315-0080(1)(c).
5. Full application of water to beneficial use can be completed by October 1, 2008<sup>5</sup> pursuant to OAR 690-315-0080(1)(d).
6. The Department has considered the reasonable diligence and good faith of the appropriator, the cost to appropriate and apply water to a beneficial purpose, the market and present demands for water to be supplied, the financial investment made and the fair return upon the investment, the requirements of other governmental agencies, and unforeseen events over which the water right permit holder had no control, and the Department has determined that Cline Butte has shown good cause for an extension of time to apply the water to full beneficial use pursuant to OAR 690-315-0080(1)(e).
7. As authorized in OAR 690-315-0050(5) and as described in Finding 29 above, the Department has established, as specified in the "Conditions" section of this PFO (Item 1), a condition to ensure further diligence and mitigate the effects of the subsequent development under Permit G-13856 on competing demands on the resource.

### **Proposed Order**

Based upon the foregoing Findings of Fact and Conclusions of Law, the Department proposes to issue an order to:

extend the time to apply the water to beneficial use under Permit G-11762 from October 1, 1998 to October 1, 2008.

Subject to the following conditions:

### **CONDITIONS**

#### **1. Static Water Level Measurement and Reporting Condition**

The Department requires the water user to measure and report annual static water levels for

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<sup>5</sup> Pursuant to ORS 537.630(4), upon the completion of beneficial use of water allowed under the permit, the permittee shall hire a certified water rights examiner to survey the appropriation. Within one year after the complete application of water to a beneficial use (or by the date allowed for the complete application of water to a beneficial use), the permittee shall submit a map of the survey and the claim of beneficial use.



each well on the permit. Or the water user can measure other wells in close proximity to the permitted wells, if the Department's Groundwater Staff determines that the substitute observation wells will provide adequate data to assess the impacts from the permitted wells. The static water level shall be measured in the month of March, beginning in the year 2008. Reports shall be submitted to the Department within 30 days of measurement.

The permittee shall submit an initial March static water-level measurement once well construction is complete and annual measurements thereafter. Annual measurements are required whether or not the well is used. Reference water-level measurements for determining water-level declines on this permit are as follows: Well #6: 518'; Well #7: 518'; and Well #8 312'. Or, the first annual measurement at the substitute observation wells will establish the reference levels against which future measurements will be compared. The Director may require the user to measure and report additional water levels each year if more data is needed to evaluate the aquifer system.

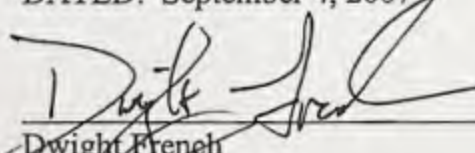
All measurements shall be made by a certified water rights examiner, registered professional geologist, registered professional engineer, licensed well constructor, or pump installer licensed by the Construction Contractors Board. Measurements shall be submitted on forms provided by, or specified by, the Department. Measurements shall only be made using an electric tape or steel tape that is accurate to at least the standards specified in OAR 690-217-0045. The Department requires the individual performing the measurement to:

- A. Associate each measurement with an owner's well name or number and a Department well log ID; and
- B. Report water levels to at least the nearest tenth of a foot as depth-to-water below ground surface; and
- C. Specify the method of measurement; and
- D. Certify the accuracy of all measurements and calculations submitted to the Department.

The water user shall discontinue use of, or reduce the rate of volume of withdrawal from the well if annual water-level measurements reveal a water-level decline of 10 or more feet.

The period of restricted use shall continue until the water level rises above the decline level which triggered the action or the Department determines, based on the permittee's and/or the Department's data and analysis, that no action is necessary because the aquifer in question can sustain the observed declines without adversely impacting the resource or causing substantial interference with senior water rights. The water use shall not allow excessive decline, as defined in Commission rules, to occur within the aquifer as a result of use under this permit.

DATED: September 4, 2007

  
Dwight French  
Administrator

*If you have any questions, please check the information box on the last page for the appropriate names and phone numbers.*



**Proposed Final Order Hearing Rights**

1. Under the provisions of OAR 690-315-0100(1) and 690-315-0060, the applicant or any other person adversely affected or aggrieved by the proposed final order may protest and request a contested case hearing on the proposed final order. Your request for contested case hearing must be in writing and must be received by the Water Resources Department no later than **October 19, 2007** being 45 days from the date of publication of the proposed final order in the Department's weekly public notice.
2. A written request for contested case hearing shall include:
  - a. The name, address and telephone number of the petitioner;
  - b. A description of the petitioner's interest in the proposed final order and if the protestant claims to represent the public interest, a precise statement of the public interest represented;
  - c. A detailed description of how the action proposed in the proposed final order would adversely affect or aggrieve the petitioner's interest;
  - d. A detailed description of how the final order is in error or deficient and how to correct the alleged error or deficiency;
  - e. Any citation of legal authority supporting the petitioner, if known;
  - f. Proof of service of the protest upon the water right permit holder, if petitioner is other than the water right permit holder; and
  - g. The protest fee required under ORS 536.050, if petitioner is other than the water right permit holder.
3. Within 60 days after the close of the period for requesting a contested case hearing, the Director shall:
  - a. Issue a final order on the extension request; or
  - b. Schedule a contested case hearing if a request for contested case hearing has been submitted, and
    - 1) Upon review of the issues, the Director finds there are significant disputes related to the proposed agency action; or
    - 2) The applicant submits a written request for a contested case hearing within 30 days after the close of the period for submitting protests.

- 
- If you have any questions about statements contained in this document, please contact Kim R. French at 503-986-0813.
  - If you have questions about how to file a protest or if you have previously filed a protest and you want to know the status, please contact Mike Reynolds at 503-986-0820.
  - If you have any questions about the Department or any of its programs, please contact our Water Resources Customer Service Group at 503-986-0801.



- Address any correspondence to: Water Rights and Adjudications Division  
725 Summer St NE, Suite A
  - Fax: 503-986-0901 Salem, OR 97301-1266
-



## Mailing List for Extension PFO Copies

**PFO Date:** September 4, 2006

**Application G-12905**

**Permit G-11762**

**Original mailed to Applicant:**

Cline Butte Utility Company  
Attn: Alan VanVliet  
1230 Golden Pheasant  
Redmond, OR 97756

|                      |
|----------------------|
| <b>Copies Mailed</b> |
| By: <i>J/S</i>       |
| (SUPPORT STAFF)      |
| <i>9/4/06</i>        |

**Copies sent to:**

1. WRD - Appl. File G- 12905 / Permit G-11762
2. WRD - Watermaster District 11 – Jeremy Giffin, Bend
4. Thomas Walker, P.E., CWRE, 920 SW Emkay Drive, Suite C-100, Bend, OR 97702

**Fee paid as specified under ORS 536.050 to receive copy:**

5. None

**Receiving via e-mail (10 AM Tuesday of signature date)**

6. Notification only: WRD – Salem Opeifa and Gerry Clark (if Reimbursement Authority)  
Done by *J/S* Date *9/14/06*

CASEWORKER: KRF



Application # G12905Permit # G11762Name of Permit Holder: Eagle Crest, Inc. (Cline Butte Utility Company)

**Reimbursement Authority Process  
Itemized Estimate Sheet  
for  
Permit Extension of Time Applications**

(Indicate the estimated amount of time, in ½ hour increments, needed to complete each item listed below.)

|                       | Item                                                                                                                                                           | Estimated Time |
|-----------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|
| 1                     | Completion of the Extension of Time Application Completeness Checklist                                                                                         | .5             |
| 2                     | Completion of the Extension of Time Proposed Final Order Checklist<br>(*Regular Ext: approx 2 hrs. to 6 hrs. // Muni/Quasi-Muni Ext: approx 4 hrs. to 24 hrs.) | 8              |
| 3                     | Preparation of the Extension of Time Proposed Final Order document<br>(*Regular Ext: approx 2 hrs. to 5 hrs. // Muni/Quasi-Muni Ext: approx 4 hrs. to 12 hrs.) | 6              |
| 4                     | Preparation of the Extension of Time Final Order document                                                                                                      | 1              |
| Total Estimated Time: |                                                                                                                                                                | 15.5           |

**\*NOTE:** Items #2 and #3 will take a greater amount of time for Municipal and Quasi-Municipal water use permits.

Estimated calendar days needed to complete work once a Work Order has been Executed 10  
(Typical turn around should not exceed Ten (10) business days.)

Name of Contractor: Public Works Management, Inc. Date: 4-13-2007

**Instructions for completing the Reimbursement Authority Process Itemized Estimate Sheet:**

To determine the estimated amount of time required to perform the project:

- Review the Permit;
- Review the Extension of Time Application; and
- Review the file record.



February 29, 1996

EAGLE RIDGE DEVELOPMENT CORPORATION  
PO BOX 1215  
REDMOND OR 97756

RECEIVED

APR 26 1996

WATER RESOURCES DEPT.  
SALEM, OREGON

RE: Required Well Water Level Report for Permit G-11762

Our records indicate that you are the holder of groundwater permit G-11762. If you are no longer the holder of this permit or no longer have an interest in it, please contact our department.

This permit contains a provision which requires the permittee to cause the static water level in the well(s) to be measured and reported to this agency annually. Consulting your permit will show the required times for measuring and reporting, as well as a list of persons eligible to make the measurements.

Please use this letter for your reply, placing any additional information on the back side if necessary. We recommend you keep a cop of this measurement report for your records.

### MEASUREMENT REPORT

Well Name or Number (if any): Eagle Crest II Well #6

Application and Permit number: Application #: G-12905 Permit #: G-11762

Person Making Measurement: Thomas A. Walker, P.E., C.W.R.E.

Description of Measuring Point: \*± 2' 5" feet above/below land surface

Static Water Level: 522.0 feet below land surface

Length of Time Well was Idle Before Measurement: Approximately one month

Calculation/Comments: \* The measurement point is the top of the well casing.

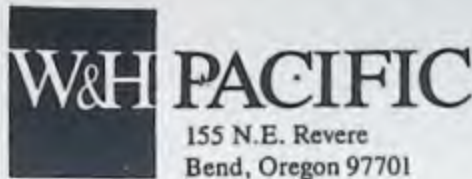
I hereby certify that, to the best of my ability, the information on this report is accurate and, at the time of measurement, representative of the static water level in the aquifer.

Signature of Person Making Measurement: Thomas A. Walker

Organization: W&H Pacific, Inc.

Thank you for your attention to this matter. If you have any questions about this notice, please call the Groundwater/Hydrology Section of the department at 378-8455 ext. 207.





Eagle Crest I Well #1 = DESC 3014  
 Eagle Crest I Well #2 = DESC 3014  
 Eagle Crest I Well #3 = DESC 3578, Record = DESC 3579, 357  
 Eagle Crest I Well #6 = DESC 1083  
 Eagle Crest I Pilot Well = DESC 1198

APR 28 1995  
 WATER RESOURCES DEPT  
 SALEM, OREGON

April 25, 1995

Oregon Water Resources Department  
 Water Right Section  
 158 12th Street, N.E.  
 Salem, Oregon 97310

Eagle Ridge Development inc.  
 PO Box 6215  
 Redmond, OR 97756

Re: Eagle Crest  
 Water Right Permit G-11762  
 Static Water Level Reporting  
 526-0105

App. G - 12905

Gentlemen/Ladies:

Under the conditions of groundwater permit G-11762, Eagle Crest is obligated to report static water levels in all project wells each spring. Water level measurements have been completed for 1995 and are tabulated below.

In each case static water level measurements were obtained after the well pump had been off for the winter season for a time adequate to restore the normal static water level. Water level measurements were taken with an electronic probe or pressure gage and air line, and in all cases stated as a distance below the natural ground line at the well casing.

| EAGLE CREST GROUNDWATER WELLS<br>MARCH 1995<br>STATIC WATER LEVEL MEASUREMENTS |                               |                    |
|--------------------------------------------------------------------------------|-------------------------------|--------------------|
| WELL DESIGNATION                                                               | APPLICABLE OWRD<br>PERMIT NO. | STATIC WATER LEVEL |
| Eagle Crest I Well #1                                                          | App. G-11762 G-10530          | 226 Feet           |
| Eagle Crest I Well #2                                                          | G-10530                       | 244 Feet           |
| Eagle Crest I Well #3                                                          | App. G-11762 G-10957          | 242 Feet           |
| Eagle Crest I Well #6 P10-Num = 2                                              | G-11762                       | 522 Feet           |
| Eagle Crest I P. Well P100-Num = 3                                             | G-11762                       | 522 Feet           |

DESC 3014  
 DESC 3014  
 DESC 3578  
 DESC 1083  
 DESC 1198







RECEIVED

APR 28 1995

WATER RESOURCES DEPT.  
SALEM, OREGON

Oregon Water Resources Department  
April 4, 1995  
Page 2

This submittal is intended to meet all Eagle Crest obligations for static water level measurement and reporting. Please never hesitate to contact me if you have any questions, comments or needs for additional information. Thank you for your assistance.

Very truly yours,  
W&H PACIFIC, INC.

A handwritten signature in cursive script that reads 'Tom Walker'.

Thomas A. Walker, P.E., C.W.R.E.  
Associate

cc: Bill Lyche  
John Lind

TAW:tlc



# Municipal or Quasi-Municipal

(ON OR PRIOR TO 11-2-98)

## **PFO Checklist for Muni and Quasi-Muni water use permits issued on or prior to November 2, 1998**

Application #: G - 12905 / Permit #: G - 11762

Permittee's Name: CLINE BUTTE UTILITY ATTN: TODD SAMPLES

Permittee's Mailing Address: 1230 GOLDEN PHEASANT, REDMOND, OR 97756

POD Location: Township 15S Range 12E Section 14 SWNW  
15 SWSE

Drainage Basin: DESCHUTES RIVER County: DESCHUTES Watermaster District: 11

✓1. Was this MU/QM permit issued on or prior to 11-2-98? (Yes) No  
\*\*\*If "No"..... STOP. You are using the wrong form. Please use the PFO Checklist for MU/QM permits issued after 11-2-98.

✓2. Has the applicant submitted the appropriate fee? (Yes) No  
NOTE: \$100 if received prior to October 1, 2003 // \$250 if received on or after October 1, 2003  
\*\*\*If "No"..... STOP. (Extension of Time cannot be processed if insufficient fees submitted.)

✓3. Has the applicant completely filled out the Extension Application form? (Yes) No  
\*\*\*If "No"..... List the shortcomings below and send a letter requesting the additional/missing information that is needed before the  
Extension of Time can be processed.

**RECEIVED**

JUN 29 2007

WATER RESOURCES DEPT  
SALEM, OREGON

✓4. Date Permit was issued: 5/31/94 Priority Date: 5/4/92

✓5. Source: 3 WELLS IN DESCHUTES RIVER BASIN

✓6. Use: QUASI-MUNICIPAL

✓7. "Q": 3.0 CFS

✓8. Orig "A" Date: 5/31/95 Orig "B" Date: 10/1/97 Orig "C" Date: 10/1/98

✓9. Conditions of Permit:

- BEFORE USE → MUST INSTALL METER OR OTHER SUITABLE MEASURING DEVICE
- SHALL KEEP COMPLETE RECORD OF MONTHLY WATER USE & REPORT ANNUALLY TO WRD.
- SHALL OBTAIN MARCH SWL MEASUREMENTS FOR EACH WELL & REPORT TO WRD WITHIN 30 DAYS OF MEASUREMENT.

• Establish reference water level - highest of March 1995 or 1996

10. Extension request received: 4/3/07 Request Number (...1<sup>st</sup>, 2<sup>nd</sup>, 3<sup>rd</sup>): 1<sup>ST</sup>

11. Last Authorized "B" Date: 10/1/97 Last Authorized "C" Date: 10/1/98

12. Proposed "B" Date: Proposed C Date: 10/1/2008

13. Amount Invested to date: \$1,610,000 Estimated Total Cost: \$1,615,000

(\*\*\*Estimated Remaining Cost: \$5,000.)



\_\_\_14. The water project development made to date has been accomplished in accordance with the terms and conditions contained in the permit. Yes / No \*\*\*If "No"..... Identify which permit terms and/or conditions have not been met?

\_\_\_15. Work on the water development project completed to date includes: Construction of 3 wells  
Installed 30,000 lineal ft. of water distribution piping & all  
appurtenances, installed 27,000 lineal ft. of distribution piping  
& all appurtenances. Installation of pumps and meters  
Water Management and Conservation Plan

\_\_\_16. The work remaining to be completed consists of: Application for permit amendment  
~~Installation of pumps and meters, installed 30,000 ft of water distribution~~  
~~piping & all appurtenances, installed 27,000 lineal ft of distribution piping &~~  
~~all appurtenances~~

\_\_\_17. Progress in perfecting the permit is being held up by: permit amendment

\_\_\_18. Has the applicant pursued perfection of the right in good faith and with reasonable diligence? Yes No

\_\_\_19. Determination of the market and the present demand for water or power to be supplied: Must rely on full development of current groundwater permits  
Population increase (projected) 3400 to 6175.  
Given current situation, there is a market for water

\_\_\_20. For **MUNICIPAL** permits ONLY, Maintaining persistence of state or federal listed fish species:

a. Is this a MUNICIPAL use permit? YES or NO

- If YES... proceed with Items #20-b through #20-f.

- If NO... Indicate "N/A" and Skip to Item #21.

b. Was this permit issued on or prior to 11-2-98? YES or NO

- If NO....STOP. You are using the wrong form. Use the PFO Checklist for MU/QM permits issued after 11-2-98.

c. Is this the first extension issued since 6-29-05 (effective date of HB 3038)? YES or NO

- If NO.....STOP. Indicate "N/A" and Skip to Item #21. [Refer to OAR 690-315-0080(1)(f)]

d. If YES to Items #19-a., #19-b. and #19-c. above, has ODFW reviewed extension application? YES or NO \_\_\_\_\_

e. Has ODFW recommended adding any conditions to the Ext. PFO? YES or NO \_\_\_\_\_

f. Does the permit holder have any existing fish protection agreement with a state or federal agency? YES or NO

(Refer to ODFW's review for this determination.) \_\_\_\_\_



21. Based on the written record, can the Department make a finding of "Good Cause" to approve the extension request?

Yes. "Good Cause" can be found. → Approval of Extension Request

No ... "Good Cause" cannot be found. → Denial of Extension Request

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JUN 29 2007

WATER RESOURCES DEPT  
SALEM, OREGON

22. Conditions to be included in Extension PFO (if applicable)? Yes / No

(NOTE: Check the file record for documentation to add a condition(s) at the extension stage.)

☐ Max "Q" Development Limitations and Div. 86 Water Management and Conservation Plan

☐ Other: \_\_\_\_\_

23. Footnote regarding Claim of Beneficial Use. Choose the appropriate language below and insert as a footnote in the PFO:

☐ COBU Requirement - Surface/Ground Water - on or prior to July 9, 1987

"For permits applied for or received on or before July 9, 1987, upon complete development of the permit, you must notify the Department that the work has been completed and either: (1) Hire a water right examiner certified under ORS 537.798 to conduct a survey, the original to be submitted as required by the Water Resources Department, for issuance of a water right certificate; or (2) Continue to appropriate water under the water right permit until the Water Resources Department conducts a survey and issues a water right certificate under ORS 537.250 or 537.625."

☐ COBU Requirement - Surface Water - post July 9, 1987

"Pursuant to ORS 537.230(3), upon the completion of beneficial use of water allowed under the permit, the permittee shall hire a certified water rights examiner to survey the appropriation. Within one year after the complete application of water to a beneficial use (or by the date allowed for the complete application of water to a beneficial use), the permittee shall submit a map of the survey and the claim of beneficial use."

☒ COBU Requirement - Ground Water - post July 9, 1987

"Pursuant to ORS 537.630(3), upon the completion of beneficial use of water allowed under the permit, the permittee shall hire a certified water rights examiner to survey the appropriation. Within one year after the complete application of water to a beneficial use (or by the date allowed for the complete application of water to a beneficial use), the permittee shall submit a map of the survey and the claim of beneficial use."

#### NOTES:

CC: W & H PACIFIC  
ATTN: TDM WALKER  
920 SW EMKAY - SUITE C-100  
BEND, OR 97702-1041

Extension "PFO" Dates

Checklist Last Revised: 11 / 21 / 2005

Mailing / Issuance Date: \_\_\_\_\_

Reviewer's Name: \_\_\_\_\_

Protest Deadline Date: \_\_\_\_\_

Date: \_\_\_\_\_



Application # G-12905/ Permit # G-11762Permit Holder: CLINE BUTTE UTILITYDrainage Basin: DECHUTES RIVER BASINWatermaster Name and #: KYLE GORMAN #11Place a (✓)  
in the box  
if the item  
is satisfied**Division 315 - Municipal/Quasi-Municipal  
Extension of Time - Completeness Checklist  
OAR 690-315-0070(3)**

✓

1. [OAR 690-315-0070(3)] The appropriate extension of time fee, (as specified in ORS 536.050).  
Duplicate Fees Paid? \$100 applications received by September 30, 2003 / \$250 applications received on or after October 1, 2003

✓

\* [OAR 690-315-0070(3)(a)] The name and mailing address of the water right permit holder(s);

✓

\* [OAR 690-315-0070(3)(b)] The application number and the permit number for which an extension is requested;

✓

2-A. [OAR 690-315-0070(3)(c)] For Quasi-Municipal water use permit holders, evidence of the actions taken to begin actual construction on the project, as defined in 690-315-0020(3)(d), if required under the applicable statute;  
• "Actual construction" means physical work performed toward completion of the water system, which demonstrates both the present good faith of the water right permit holder and the water right permit holder's intention to complete the project with reasonable diligence;  
• "Actual construction" does not include planning a diversion system, formulating a business plan, securing financing, letting contracts, purchasing but not installing equipment, or surveying.Date permit issued: 5/31/94 (NOTE: Municipal and Quasi-Municipal permits issued after 11/2/98 are also subject to review under 690-315-0080(5)... See PFO Checklist)"A" date: 5/31/95 "B" date: 10/1/97 "C" date: 10/1/98"A" Date Met? YES or NO CONSTRUCTION BEGAN ON 9/18/91 ✓

N/A

2-B. [OAR 690-315-0070(3)(d)] - For Municipal water use permits issued on or after June 29, 2005, evidence of the actions taken to begin actual construction on the project, as defined in 690-315-0020(3)(d);  
• "Actual construction" means physical work performed toward completion of the water system, which demonstrates both the present good faith of the water right permit holder and the water right permit holder's intention to complete the project with reasonable diligence;  
• "Actual construction" does not include planning a diversion system, formulating a business plan, securing financing, letting contracts, purchasing but not installing equipment, or surveying.

Date permit issued: \_\_\_\_\_ (NOTE: Municipal and Quasi-Municipal permits issued after 11/2/98 are also subject to review under 690-315-0080(5)... See PFO Checklist)

"A" date: \_\_\_\_\_ "B" date: \_\_\_\_\_ "C" date: \_\_\_\_\_

"A" Date Met? YES or NO

RECEIVED

✓

3. [OAR 690-315-0070(3)(e)] - This is extension request # 2  
Evidence of actions taken to develop the right within the original permitted time period OR, during the most recent extension period from \_\_\_\_\_ to \_\_\_\_\_

JUN 29 2007

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SALEM, OREGON

✓

4. [OAR 690-315-0070(3)(f)] Evidence of compliance with conditions contained in the permit and any previous extension(s) or the reason the condition was not satisfied;  
• 1999 - EACH WELL HAS WATER METER  
• 1995 - PRESENT → ANNUAL WATER USE REPORTING COMPLETED  
• 1991 - PRESENT → STATIC WATER LEVEL MEASUREMENTS COMPLETED

Ref. level? OK

✓

5. [OAR 690-315-0070(3)(g)] Evidence of the maximum INSTANTANEOUS rate (or duty if applicable) of diversion for beneficial water use, if any, made to date;  
WELL #6 = 1210 GPM (2.7 CFS) WELL #7 = 260 GPM (.6 CFS) WELL #8 = 1760 GPM (3.9 CFS)  
(4.28 CFS UTILIZED UNDER PERMIT G-11313) (3.0 TOTAL CFS USED FOR G-11762)

✓

6. [OAR 690-315-0070(3)(h)] An estimate of the population served and a description of the methodology(ies) used to make the estimate; POPULATION APPROX 3400 (PEAK-SUMMER TIME) SEE ALSO WLMP 2005



Place a (✓) in the box if the item is satisfied

**Division 315 - Municipal/Quasi-Municipal  
Extension of Time - Completeness Checklist  
OAR 690-315-0070(3)**

|     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|-----|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ✓   | 7. [OAR 690-315-0070(3)(i)] A description of financial expenditures made toward completion of the water development;<br>JUST TO DATE \$1,610,000                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| ✓   | 8. [OAR 690-315-0070(3)(j)] An estimate of the cost to complete the water development;<br>\$5,000                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| ✓   | 9. [OAR 690-315-0070(3)(k)] A summary of any events that delayed completion of the water development or application of water to full beneficial use, including other governmental requirements, if any, relating to the project that have significantly delayed completion of construction or perfection of the right;<br>• SIZE & SCOPE<br>• NEED TO FILE PERMIT AMENDMENT                                                                                                                                                                                                                                                                  |
| ✓   | 10. [OAR 690-315-0070(3)(l)]<br><b>PART A:</b> An estimated demand projection and a description of the methodology(ies) used for the subject water right permit, considering the other water rights held by the municipal or quasi-municipal water use permit holder, and a date by which the water development is anticipated to be completed and water put to full beneficial use.<br>Current Peak Water Demands: SEE WMCP 2004 UPDATE SEC 3.1 & 3.2 (SEE ALSO TABLE 3 & 5)<br>Projected Population: SEE WMCP 2004 UPDATE SEC 3.1<br>Potential Growth: " " " " SEC 3<br>Inventory of Water Rights Held: PERMITS G-13819, G-11762 & G-11313 |
| N/A | <b>PART B:</b> Extension requests for <u>greater than 50 years</u> must include documentation that the demand projection is consistent with the amount and types of lands and uses proposed to be served by the permit holder.                                                                                                                                                                                                                                                                                                                                                                                                               |
| ✓   | 11. [OAR 690-315-0070(3)(m)] A summary of the applicant's plan and schedule to complete construction and/or perfect the water right;<br>• FILE PERMIT AMENDMENT                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| ✓   | 12. [OAR 690-315-0070(3)(n)] Justification for the time requested to complete the project and/or apply the water to full beneficial use;<br>PERMIT AMENDMENT NEEDED                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| ✓   | 13. [OAR 690-315-0070(3)(o)] Any other information the applicant determines is relevant to evaluate the application in accordance with applicable statutes and rules; NONE                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| N/A | * [OAR 690-315-0070(3)(p)] Any other information required by the Department that is necessary to evaluate the application in accordance with applicable statutory requirements.                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| N/A | [OAR 690-315-0070(3)(q)] <i>For Municipal water use permits issued on or before November 2, 1998: for the first extension issued after June 29, 2005, the completed application must include a copy of any agreements regarding the use of the undeveloped portion of the permit between the permit holder and a federal or state agency that include conditions or required actions that maintain the persistence of listed fish species in the portions of waterways affected by water use under the permit.</i>                                                                                                                           |
| ✓   | * Signature(s) of the water right permit holder(s) or authorized agent.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |

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Name of Reviewer: KIM FRENCH / ANN REECE

Date: 4/6/07



Application # G-12905 Permit # G-11762

**Public Notice Route Slip ... New Application Extension of Time**

per Division 315 Rules... (Extensions received on July 1, 2001 or after)

♦ **WRIG...**

Money Receipted on: 4/3/07

♦ **Kim French...**

☒ Added to tracking spreadsheet

**After fee is receipted and app is added to spreadsheet, route to...**

♦ **Jonine Skaug...**

☒ Publish on Public Notice (initial 30-day comment): Date of notice 6/12/07/ms

☒ Update WRIS Database

☒ In the "PNotice Date" field... Enter the date the Extension Application was published on the Public Notice.

☒ In the "Ext Filed" field... Enter the date the Extension Application was received.



Application # G-12905Permit # G-11762Permit Holder: CLINE BUTTE UTILITYDrainage Basin: DECHUTES RIVER BASINWatermaster Name and #: KYLE GUERMAN #11Place a (✓)  
in the box  
if the item  
is satisfied**Division 315 - Municipal/Quasi-Municipal  
Extension of Time - Completeness Checklist  
OAR 690-315-0070(3)**

✓

1. [OAR 690-315-0070(3)] The appropriate extension of time fee (as specified in ORS 536.050).  
(\$100) applications received by September 30, 2003 / (\$250) applications received on or after October 1, 2003  
Duplicate Fees Paid? \_\_\_\_\_

✓

\* [OAR 690-315-0070(3)(a)] The name and mailing address of the water right permit holder(s);

✓

\* [OAR 690-315-0070(3)(b)] The application number and the permit number for which an extension is requested;

✓

2-A. [OAR 690-315-0070(3)(c)] For Quasi-Municipal water use permit holders, evidence of the actions taken to begin actual construction on the project, as defined in 690-315-0020(3)(d), if required under the applicable statute;  
• "Actual construction" means physical work performed toward completion of the water system, which demonstrates both the present good faith of the water right permit holder and the water right permit holder's intention to complete the project with reasonable diligence;  
• "Actual construction" does not include planning a diversion system, formulating a business plan, securing financing, letting contracts, purchasing but not installing equipment, or surveying.Date permit issued: 5/31/94 (NOTE: Municipal and Quasi-Municipal permits issued after 11/2/98 are also subject to review under 690-315-0080(5)... See PFO Checklist)"A" date: 5/31/95 "B" date: 10/1/97 "C" date: 10/1/98"A" Date Met? YES or NO CONSTRUCTION BEGAN ON 9/18/91

N/A

2-B. [OAR 690-315-0070(3)(d)] - For Municipal water use permits issued on or after June 29, 2005, evidence of the actions taken to begin actual construction on the project, as defined in 690-315-0020(3)(d);  
• "Actual construction" means physical work performed toward completion of the water system, which demonstrates both the present good faith of the water right permit holder and the water right permit holder's intention to complete the project with reasonable diligence;  
• "Actual construction" does not include planning a diversion system, formulating a business plan, securing financing, letting contracts, purchasing but not installing equipment, or surveying.

Date permit issued: \_\_\_\_\_ (NOTE: Municipal and Quasi-Municipal permits issued after 11/2/98 are also subject to review under 690-315-0080(5)... See PFO Checklist)

"A" date: \_\_\_\_\_ "B" date: \_\_\_\_\_ "C" date: \_\_\_\_\_

"A" Date Met? YES or NO

✓

3. [OAR 690-315-0070(3)(e)] - This is extension request # 2Evidence of actions taken to develop the right within the original permitted time period  
OR, during the most recent extension period from \_\_\_\_\_ to \_\_\_\_\_

✓

4. [OAR 690-315-0070(3)(f)] Evidence of compliance with conditions contained in the permit and any previous extension(s) or the reason the condition was not satisfied;• 1999 - EACH WELL HAS WATER METER  
• 1995 - PRESENT → ANNUAL WATER USE REPORTING COMPLETED  
• 1991 - PRESENT → STATIC WATER LEVEL MEASUREMENTS COMPLETED

✓

5. [OAR 690-315-0070(3)(g)] Evidence of the maximum INSTANTANEOUS rate (or duty if applicable) of diversion for beneficial water use, if any, made to date;

WELL #6 = 1210 GPM (2.7 CFS) WELL #7 = 260 GPM (.6 CFS) WELL #8 = 1760 GPM (3.9 CFS)  
(4.28 CFS UTILIZED UNDER PERMIT G-11313) (3.0 TOTAL CFS USED FOR G-11762)

✓

6. [OAR 690-315-0070(3)(h)] An estimate of the population served and a description of the methodology(ies) used to make the estimate; POPULATION APPROX 3400 (PEAK-SUMMER TIME) SEE ALSO WCMF 2005



| Place a (✓) in the box if the item is satisfied | <b>Division 315 - Municipal/Quasi-Municipal</b><br><b>Extension of Time - Completeness Checklist</b><br><b>OAR 690-315-0070(3)</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|-------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ✓                                               | <b>7. [OAR 690-315-0070(3)(i)]</b> A description of financial expenditures made toward completion of the water development;<br>COST TO DATE \$1,610,000                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| ✓                                               | <b>8. [OAR 690-315-0070(3)(j)]</b> An estimate of the cost to complete the water development;<br>\$5,000 <sup>00</sup>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| ✓                                               | <b>9. [OAR 690-315-0070(3)(k)]</b> A summary of any events that delayed completion of the water development or application of water to full beneficial use, including other governmental requirements, if any, relating to the project that have significantly delayed completion of construction or perfection of the right;<br>• SIZE & SCOPE<br>• NEED TO FILE PERMIT AMENDMENT                                                                                                                                                                                                                                                                  |
| ✓                                               | <b>10. [OAR 690-315-0070(3)(l)]</b><br><b>PART A:</b> An estimated demand projection and a description of the methodology(ies) used for the subject water right permit, considering the other water rights held by the municipal or quasi-municipal water use permit holder, and a date by which the water development is anticipated to be completed and water put to full beneficial use.<br>Current Peak Water Demands: SEE WMCP 2004 UPDATE SEC 3.1 & 3.2 (SEE ALSO TABLE 3 & 5)<br>Projected Population: SEE WMCP 2004 UPDATE SEC 3.1<br>Potential Growth: " " " " SEC 3<br>Inventory of Water Rights Held: PERMITS G-13819, G-11762 & G-11313 |
| N/A                                             | <b>PART B:</b> Extension requests for <u>greater than 50 years</u> must include documentation that the demand projection is consistent with the amount and types of lands and uses proposed to be served by the permit holder.                                                                                                                                                                                                                                                                                                                                                                                                                      |
| ✓                                               | <b>11. [OAR 690-315-0070(3)(m)]</b> A summary of the applicant's plan and schedule to complete construction and/or perfect the water right;<br>• FILE PERMIT AMENDMENT                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| ✓                                               | <b>12. [OAR 690-315-0070(3)(n)]</b> Justification for the time requested to complete the project and/or apply the water to full beneficial use;<br>PERMIT AMENDMENT NEEDED                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| ✓                                               | <b>13. [OAR 690-315-0070(3)(o)]</b> Any other information the applicant determines is relevant to evaluate the application in accordance with applicable statutes and rules; NONE                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| N/A                                             | <b>* [OAR 690-315-0070(3)(p)]</b> Any other information required by the Department that is necessary to evaluate the application in accordance with applicable statutory requirements.                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| N/A                                             | <b>[OAR 690-315-0070(3)(q)]</b> <u>For Municipal water use permits issued on or before November 2, 1998:</u> for the first extension issued after June 29, 2005, the completed application must include a copy of any agreements regarding the use of the undeveloped portion of the permit between the permit holder and a federal or state agency that include conditions or required actions that maintain the persistence of listed fish species in the portions of waterways affected by water use under the permit.                                                                                                                           |
| ✓                                               | <b>* Signature(s) of the water right permit holder(s) or authorized agent.</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |

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Name of Reviewer: KIM FRENCH / ANN REECE

Date: 4/6/07





# Oregon

Theodore R. Kulongoski, Governor

**Water Resources Department**  
North Mall Office Building  
725 Summer Street NE, Suite A  
Salem, OR 97301-1266  
503-986-0900  
FAX 503-986-0904

June 12, 2007

REFERENCE: Application for Extension of Time

Dear Extension of Time Applicant:

The Water Rights Section has received your application for an extension of time for **APPLICATION FILE # G-12905 (PERMIT # G-11762)**. Your application will be reviewed in the near future. Following the review, you will receive a Proposed Final Order either approving or rejecting the extension of time request. A 45-day protest period begins upon issuance of the Proposed Final Order. After the protest period closes, a Final Order is issued.

If you have questions concerning your extension of time application, please contact Kim French at (503) 986-0813. For general information about the Water Resources Department, you may contact the Water Resources' Customer Service Group at (503) 986-0801 or you may access the Department's Internet home page at: "[www.wrd.state.or.us](http://www.wrd.state.or.us)".



**Final Deliverables Cover Sheet**  
**for**  
**Permit Extension of Time Applications**

Application #: G-12905 Permit #: G-11762

Name of Permit Holder: Cline Butte Utility Company  
(Eagle Crest)

The following items are enclosed:

- ☒ The completed Extension of Time Completeness Checklist;
- ☒ The completed Extension of Time Proposed Final Order Checklist;
- ☒ All background information and notes used to make the extension determination;
- ☒ A hard copy of the Extension of Time documents:
  - a. Letter(s) requesting additional/missing information (if applicable)
  - b. Proposed Final Order and Mailing List
  - c. Final Order and Mailing List
- ☒ An electronic copy of the Extension of Time documents\*
  - a. Letter(s) requesting additional/missing information (if applicable)
  - b. Proposed Final Order and Mailing List
  - c. Final Order and Mailing List

**\*NOTE:**

WRD will only accept electronic copies in the following programs:

- a. WordPerfect, or
- b. MS Word - "rich text" format only

☒ Signature of Contractor: Norman E. Jeff Date: 6-20-2007  
pwm

*For WRD use only:*

WRD approval by: \_\_\_\_\_ Date: \_\_\_\_\_

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**SALEM, OREGON**



**Oregon Water Resources Department  
Water Rights Division**

**Application for Extension of Time**

In the Matter of the Application for an Extension of Time    )  
for Permit G-11762, Water Right Application G-12905,    )    PROPOSED FINAL ORDER  
in the name of Cline Butte Utility Company                )

**Permit Information**

**Application File G-12905 / Permit G-11762**

Basin **15** – Dischutes Basin / Watermaster District 11

Date of Priority:       May 4, 1992

**Authorized Use of Water**

Source of Water:       Three Wells in the Dischutes River Basin

Purpose or Use:         Quasi-Municipal

Maximum Rate:        3.0 Cubic Feet per Second

**This Extension of Time request is being processed in accordance  
with Oregon Administrative Rule Chapter 690, Division 315.**

***Please read this Proposed Final Order in its entirety as it contains  
additional conditions not included in the original permit.***

This Proposed Final Order applies only to Permit G-11762, water right Application G-12905. A copy of Permit G-11762 is enclosed as Attachment 1.

**Summary of Proposed Final Order for Extension of Time**

**The Department proposes to:**

Proposed Final Order: Permit G-11762

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WATER RESOURCES DEPT  
SALEM, OREGON

Page 1 of 12



- grant an extension of time to complete construction of the water system from October 1, 1998 to October 1, 2003;
- grant an extension of time to apply water to full beneficial use from October 1, 1998 to October 1, 2008; and
- make the extension of time subject to certain conditions as set forth below.

### ACRONYM QUICK REFERENCE

Department – Oregon Department of Water Resources  
 Utility Company – Cline Butte Utility Company  
 ODFW – Oregon Department of Fish and Wildlife  
 PFO – Proposed Final Order  
 WMCP – Water Management and Conservation Plan

#### Units of Measure

cfs – cubic feet per second  
 gpm – gallons per minute  
 mgd – million gallons per day

### AUTHORITY

Generally, see ORS 537.690 and OAR Chapter 690 Division 315.

ORS 537.630(2) provides in pertinent part that the Oregon Water Resources Department (Department) may, for good cause shown, shall order and allow an extension of time, for the completion of the well or other means of developing and securing the ground water or for complete application of water to beneficial use. In determining the extension, the department shall give due weight to the considerations described under ORS 539.010 (5) and to whether other governmental requirements relating to the project have significantly delayed completion of construction or perfection of the right.

ORS 539.010(5) provides in pertinent part that the Water Resources Director, for good cause shown, may extend the time within which the full amount of the water appropriated shall be applied to a beneficial use. This statute instructs the Director to consider: the cost of the appropriation and application of the water to a beneficial purpose; the good faith of the appropriator; the market for water or power to be supplied; the present demands therefore; and the income or use that may be required to provide fair and reasonable returns upon the investment.

(include OAR 690-315-0050(5) only if it applies in the case of added conditions; for example, Municipal Use Extension Condition) [Wait for ground water review](#)

OAR 690-315-0050(5) authorizes the Department to include in an extension order, but is not limited to, any condition or provision needed to: ensure future diligence; mitigate the effects of the subsequent development on competing demands on the resource; and periodically document the continued need for

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 SALEM, OREGON



the permit.

OAR 690-315-0080 provides in pertinent part that the Department shall make findings to determine if an extension of time for municipal and/or quasi-municipal water use permit holders may be approved to complete construction and/or apply water to full beneficial use.

## FINDINGS OF FACT

### Background

1. Permit G-11762 was granted by the Department on May 31, 1994. The permit authorizes the use of up to 1.0 cfs of water from three wells within the Deschutes River Basin, for quasi-municipal use. It specified that construction of the water development project should be completed by October 1, 1997, and that complete application of water was to be made on or before October 1, 1998.
2. On February 19, 2001 the Department approved an assignment of Permit G-11762 from Eagle Ridge Development Company to Cline Butte Utility Company. Cline Butte Development Company is a private water company at the Eagle Ridge Destination Resort and is a subsidiary of Eagle Crest, Inc.
3. No prior extensions have been granted for the permit. This is the first extension of time request for Permit G-11762. However, the first extension request was submitted on September 8, 1997.
4. Due to an ongoing permit extension rulemaking, the Department placed all pending Applications for Extension of Time for municipal and quasi-municipal permits on hold and did not require municipal and quasi-municipal water use permit holders to submit Applications for Extension of Time until the new rules were adopted.
5. Municipal and quasi-municipal water use permit extension rules OAR 690-315-0070 through 690-315-0100 were adopted by the Water Resources Commission November 1, 2002, were further revised, filed with the Secretary of State, and became effective on November 22, 2005.
6. The permit holder, Cline Butte Utility Company (Utility Company), submitted an "Application for Extension of Time" to the Department on April 7, 2007, requesting the time to apply water to full beneficial use under the terms of Permit G-11762 be extended from October 1, 1998 to October 1, 2008.
7. Notification of the Utility Company's Application for Extension of Time for Permit G-11762 was published in the Department's Public Notice dated February 11, 2003 and June 12, 2007. No public comments were received regarding the extension application.

### Review Criteria for Municipal Quasi-Municipal Water Use Permits [OAR 690-315-0080(1)]

*The time limits to complete construction and/or apply water to full beneficial use may be extended if the Department finds that the permit holder has met the requirements set forth under OAR 690-315-0080. This*



determination shall consider the applicable requirements of ORS 537.230<sup>1</sup>, 537.248<sup>2</sup>, 537.630<sup>3</sup> and/or 539.010(5)<sup>4</sup>

**Complete Extension of Time Application [OAR 690-315-0080(1)(a)]**

8. On April 3, 2007, the Department received a completed Application for Extension of Time and the fee required by ORS 536.050 from the permit holder.

**Start of Construction [OAR 690-315-0080(1)(b)]**

9. Actual construction of the well (#6) began September 18, 1991, which was within the time specified in the permit.

**Duration of Extension [OAR 690-315-0080(1)(c)(d)]**

*Under OAR 690-315-0080(1)(c),(d), in order to approve an extension of time for municipal and quasi-municipal water use permits the Department must find that the time requested is reasonable and the applicant can complete the project within the time requested.*

10. The remaining work to be accomplished under Permit G-11762 consists **filing a permit amendment.**
11. As of April 3, 2007, the permit holder has appropriated a total of **3.0** cfs **of the 3.0** cfs of water allowed under Permit G-11762 for quasi-municipal purposes.
12. In addition to the **3.0** cfs of water allowed under Permit G-11762 (Wells 6, 7 and 8), the Utility Company holds the following rights:

- Permit G-13856 for 3.34 cfs of water for quasi-municipal use from well #9 within the DischutesRiver Basin.

The Utility Company's permits total 6.34 cfs of ground water.

13. **Eagle Ridge Development Corporation** holds Permit G-11313 for 4.28 cfs of water for irrigation and commercial use from the three wells (Wells 6, 7 and 8) listed in permit G-11762. **Pumps are sized to deliver water simultaneously to both permits G-13856 and G-11313.**
14. **The Utility Company currently utilizes a peak day demand total of 6.34 cfs of water for quasi-municipal purposes, being up to 2.7 cfs from Well 6 (Permit G-11762), up to 0.60 cfs from Well 7 (Permit G-11762), up to 3.0 cfs from well 8 (Permit G-11762) and 3.34 cfs from well 9 (Permit G-13856) to meet its present demand for water. In addition wells 6, 7 and 8 provide up**

<sup>1</sup> ORS 537.230 applies to surface water permits only.

<sup>2</sup> ORS 537.248 applies to reservoir permits only.

<sup>3</sup> ORS 537.630 applies to ground water permits only.

<sup>4</sup> ORS 537.010(5) applies to surface water and ground water permits.

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**SALEM, OREGON**



to 4.28 cfs of water for irrigation and commercial use under permit G-11313 in the name of Eagle Ridge Development Company. The 4.28 cfs being up to 2.7 cfs from well 6, up to .60 cfs from well 7 and up to 3.9 cfs from well 8. The current capacity of wells 6,7 and 8 total 7.2 cfs while the total quantity of water allowed under permits G-11762 and G-11313 is 7.28 cfs. The current capacity of well 9 is 3.47 cfs while the total quantity of water allowed under permit G-13856 is 3.34 cfs.

15. The current population served by the Utility Company is approximately 3400 persons during peak summertime occupancy and is expected to increase, at the completion of Phase III, to a population of 6175. (See the 2004 "The Highlands of Eagle Crest" Water Management and Conservation Plan, Deschutes County, Oregon, Table 3 page 7).
16. The Cline Butte Utility Company has requested withdrawal of its June 2004, Claim of Beneficial Use (COBU) for permit G-11672 and its September, 2006 COBU for permit G-13856 in order to submit permit amendments to allow interconnection of existing wells which will enhance the reliability and efficiency of the domestic water supply system and allow for better management of water rights. The amendment to permit G-11762 will add an existing well as an additional point of appropriation.
17. Full development of Permit G-11672 is needed to address the present and future water demand of the Utility Company.
18. Cline Butte Utility Company's request for an extension of time until October 1, 2008 to apply water to full beneficial use under the terms of Permit G-11672 is both reasonable and necessary, considering findings in this PFO, including:
  - the amount of development left to occur;
  - the projected demands for water;
  - the need for better reliability and efficiency of the water system
  - the demands of the other water rights from the source wells.

**Good Cause [OAR 690-315-0080(1)(e) and (3)(a-g) and (4)]**

*The Department's determination of good cause shall consider the requirements set forth under OAR 690-315-0080(3).*

**Reasonable Diligence and Good Faith of the Appropriator [OAR 690-315-0080(3)(a),(c) and (4)]**

*Reasonable diligence and good faith of the appropriator must be demonstrated during the permit period or prior extension period as a part of evaluating good cause in determining whether or not to grant an extension. In determining the reasonable diligence and good faith of a municipal or quasi-municipal water use permit holder, the Department shall consider activities associated with the development of the right including, but not limited to, the items set forth under OAR 690-315-0080(4) and shall evaluate how well the applicant met the conditions of the permit or conditions of a prior extension period.*



19. Prior to the issuance of Permit G-11762 on May 31, 1994 the Utility Company constructed wells number 6 and 7.
20. During the original development time frame under Permit G-11762, being from May 31, 1994 to October 1, 1998, the following work was completed by the Utility Company:
- constructed well number 8;
  - 30,000 lineal feet of water distribution lines and all appurtenances were installed;
  - installed a 50 hp and 300 hp pump in wells, with valves and controls
  - constructed 300,000 gallon storage reservoir
21. Since October 1, 1998, the Utility Company has accomplished the following:
- a WMCP was submitted to the Department in January 2001 and updated December, 2004;
  - installed 27,000 feet of water distribution line and all appurtenances;
  - water meters installed on each well;
22. As of April 3, 2007, the permit holder has invested \$1,610,000.00, which is 99.7 percent of the total projected cost for complete development of this project. The Utility Company anticipates an additional \$5,000 is needed for the completion of this project.
23. Since the issuance of Permit G-11762 on May 31, 1994, approximately 3.0 cfs of the 3.0 cfs allowed has been appropriated from Wells 6, 7 and 8 for beneficial quasi-municipal purposes under the terms of this permit.
24. The Department has considered the Utility Company compliance with conditions, and did not identify any concerns. (check ground water review)
25. Other economic interests dependent on completion of the project [OAR 690-315-0080(5)(e)].
- a. Eagle Crest Resort.

**Financial Investment and Cost to Appropriate and Apply Water to a Beneficial Purpose**  
**[OAR 690-315-0080(3)(b)]**

26. As of April 3, 2007, the City has invested an approximate total of \$1,610,000.00 into the project for the following:
- construction of 3 wells;
  - installation of water distribution lines;

Proposed Final Order: Permit G-11762

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Page 6 of 12



- installation well pumps, controls and meters;
- construction of a 300,000 gallon water reservoir;

The Utility Company anticipates an additional \$5,000 is needed for the completion of this project.

**The Market and Present Demands for Water [OAR 690-315-0080(3)(d)]**

27. As described in Findings 10 through 18 the Utility Company has indicated, and the Department finds that the Utility Company must rely on full development of all its current ground water rights within the Deschutes River Basin.
28. The Utility Company projects a population increase, from 3400 to 6175 according to their December 2004 Water Management and Conservation Plan (Table 3, page 7).
29. Given the current water supply situation of the City, as well as current and expected demands, there is a market and present demand for the water to be supplied under Permit G-11762.
30. Wait for Ground water review The department determined on [Date of GW review] that as the Utility Company incrementally develops Permit G-YYYY, water levels would likely respond with increased decline rates unless other water users in the area pump less ground water from basalt aquifers. Therefore, in accordance with OAR 690-315-0050, and as specified under item 1 (Municipal Use Extension Condition) of the "Conditions" section of this PFO, Department has determined that this extension shall be conditioned to the ensure further diligence.

**Fair Return Upon Investment [OAR 690-315-0080(3)(e)]**

31. Use and income from the permitted water development project result in reasonable returns upon the investment made in the project to date.

**Other Governmental Requirements [OAR 690-315-0080(3)(f)]**

32. Delay in the development of this project was not caused by any other governmental requirements, However, the Utility Company, in discussions with the Oregon Water Resources Department, deemed it necessary to apply for a permit amendment to enhance efficiency as well as reliability and provide for better management of water.

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**Events which Delayed Development under the Permit [OAR 690-315-0080(3)(g)]**

33. Delay of development under Permit G-11762 was due, in part, to the size and scope of the municipal water system, which was designed to be phased in over a period of years and for time necessary to submit a permit amendment.

**Maintaining the Persistence of Listed Fish Species [OAR 690-315-0080(1)(f) and (2)]**

*The Department's determination regarding maintaining the persistence of listed fish species shall be based on existing data and advice of the Oregon Department of Fish and Wildlife (ODFW). The determination shall be limited to impacts related to stream flow as a result of use of the undeveloped portion of the permit and further limited to where, as a result of use of the undeveloped portion of the permit, ODFW indicates that stream flow would be a limiting factor for the subject listed fish species.*

34. Permit G-11762 is not subject to an evaluation regarding maintaining the persistence of listed fish species because it is not a municipal use.

**CONCLUSIONS OF LAW**

1. The Cline Butte Utility Company is entitled to apply for an extension of time to complete construction and/or completely apply water to the full beneficial use pursuant to ORS 537.630(2).
2. The Utility Company has submitted a complete extension application form and the fee specified under ORS 536.050(1)(k), as required by OAR 690-315-0080(1)(a).
3. The Utility Company demonstrated that actual construction on the project began within the time specified in the permit, as required by OAR 690-315-0080(1)(b).
4. The time requested to apply water to full beneficial use is reasonable, as required by OAR 690-315-0080(1)(c).
5. Full application of water to beneficial use can be completed by October 1, 2008<sup>5</sup> pursuant to OAR 690-315-0080(1)(d).
6. The Department has considered the reasonable diligence and good faith of the appropriator, the cost to appropriate and apply water to a beneficial purpose, the market and present demands for water to be supplied, the financial investment made and the fair return upon the investment, the

---

<sup>5</sup> Pursuant to ORS 537.630(4), upon the completion of beneficial use of water allowed under the permit, the permittee shall hire a certified water rights examiner to survey the appropriation. Within one year after the complete application of water to a beneficial use (or by the date allowed for the complete application of water to a beneficial use), the permittee shall submit a map of the survey and the claim of beneficial use.

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requirements of other governmental agencies, and unforeseen events over which the water right permit holder had no control, and the Department has determined that the Utility Company has shown good cause for an extension of time to apply the water to full beneficial use pursuant to OAR 690-315-0080(1)(e).

7. There is no undeveloped portion of the permit to be considered under OAR 360-315-0080(1)(f).

### **Proposed Order**

Based upon the foregoing Findings of Fact and Conclusions of Law, the Department proposes to issue an order to:

extend the time to apply the water to beneficial use under Permit G-11762 from October 1, 1998 to October 1, 2008.

Subject to the following conditions: Wait for ground water review

### **CONDITIONS**

1. Wait for ground water review

DATED: 2007

If you have any questions, please check the information box on the last page for the appropriate names and phone numbers.

\_\_\_\_\_  
Dwight French  
Administrator  
Water Rights and Adjudications Division

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SALEM, OREGON**

### **Proposed Final Order Hearing Rights**

1. Under the provisions of OAR 690-315-0100(1) and 690-315-0060, the applicant or any other person adversely affected or aggrieved by the proposed final order may protest and request a



contested case hearing on the proposed final order. Your request for contested case hearing must be in writing and must be received by the Water Resources Department no later than **September 15, 2007** being 45 days from the date of publication of the proposed final order in the Department's weekly public notice.

2. A written request for contested case hearing shall include:
  - a. The name, address and telephone number of the petitioner;
  - b. A description of the petitioner's interest in the proposed final order and if the protestant claims to represent the public interest, a precise statement of the public interest represented;
  - c. A detailed description of how the action proposed in the proposed final order would adversely affect or aggrieve the petitioner's interest;
  - d. A detailed description of how the final order is in error or deficient and how to correct the alleged error or deficiency;
  - e. Any citation of legal authority supporting the petitioner, if known;
  - f. Proof of service of the protest upon the water right permit holder, if petitioner is other than the water right permit holder; and
  - g. The protest fee required under ORS 536.050, if petitioner is other than the water right permit holder.
3. Within 60 days after the close of the period for requesting a contested case hearing, the Director shall:
  - a. Issue a final order on the extension request; or
  - b. Schedule a contested case hearing if a request for contested case hearing has been submitted, and:
    - 1) Upon review of the issues, the Director finds there are significant disputes related to the proposed agency action; or
    - 2) The applicant submits a written request for a contested case hearing within 30 days after the close of the period for submitting protests.

If you have any questions about statements contained in this document, please contact Ann L. Reece at 503-986-0808.

If you have questions about how to file a protest or if you have previously filed a protest and you want to know the status, please contact Mike Reynolds at 503-986-0820.

If you have any questions about the Department or any of its programs, please contact our Water Resources Customer Service Group at 503-986-0801.

Address any correspondence to: Water Rights and Adjudications Division  
725 Summer St NE, Suite A  
Fax: 503-986-0901 Salem, OR 97301-1266



## Mailing List for Extension PFO Copies

PFO Date: JUN 29 2007, 2006

Permit G-11762

Application G-12905

**Original mailed to Applicant:**

Cline Butte Utility Company  
Attn: Todd Samples  
1230 Golden Pheasant  
Redmond, OR 97756

**Copies Mailed**

**By:**  
(SUPPORT STAFF)

**Copies sent to:**

1. WRD - Appl. File G- 12905 / Permit G-11762
2. WRD - Watermaster District 11 – Jeremy Giffin, Bend
3. WRD - Kelly Starnes, Salem (permit amendment) ....if applicable
4. Thomas Walker, P.E., CWRE  
920 SW Emkay Drive, Suite C-100  
Bend, OR 97702

**Fee paid as specified under ORS 536.050 to receive copy:**

6. None

**Receiving via e-mail (10 AM Tuesday of signature date)**

7. Static Water Level Decline Levels Triggered (or close to triggering) ☐ YES      xx ☐ NO

If YES..... send an e-mail to the watermaster identifying the extent of static water level decline.

8. PFO: WRD – Watermaster District 16 – Mike McCord, Salem  
Done by \_\_\_\_\_ Date \_\_\_\_\_

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9. Notification only: WRD – Salem Opeifa and Gerry Clark (if Reimbursement Authority)  
Done by \_\_\_\_\_ Date \_\_\_\_\_

CASEWORKER: ALR

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Oregon Water Resources Department  
Water Rights Division

Water Rights Application  
Number G-12905

**Final Order**  
**Extension of Time for Permit Number G-11762**

**Appeal Rights**

**This is a final order in other than contested case.** This order is subject to judicial review under ORS 183.484. Any petition for judicial review must be filed within the 60 day time period specified by ORS 183.484(2). Pursuant to ORS 536.075 and OAR 137-004-0080 you may either petition for judicial review or petition the Director for reconsideration of this order. A petition for reconsideration may be granted or denied by the Director, and if no action is taken within 60 days following the date the petition was filed, the petition shall be deemed denied.

**Application History**

The Department issued Permit G-11762 on May 31, 1994. The permit called for completion of construction by October 1, October 1, 1997, and complete application of water to beneficial use by October 1, October 1, 1998. On April 3, 2007, the Cline Butte Utility Company submitted an application to the Department for an extension of time for Permit G-11762. In accordance with OAR 690-315-0050(2), on <date PFO issued>, the Department issued a Proposed Final Order proposing to extend the time to complete construction and the time to fully apply water to beneficial use to October 1, 2008. The protest period closed <45 day protest date>, in accordance with OAR 690-315-0060(1). No protest was filed.

At time of issuance of the Proposed Final Order the Department concluded that, based on the factors demonstrated by the applicant, the permit may be extended subject to no additional conditions. or subject to the following conditions: (Import conditions, if any, from the PFO).

The applicant has demonstrated good cause for the permit extension pursuant to ORS 537.630, 539.010(5) and OAR 690-315-0080(3).

**Order**

The extension of time for Application G-12905, Permit G-11762, therefore, is approved subject to conditions contained herein. The deadline for completing construction is extended to October 1, 2008. The deadline for applying water to full beneficial use is extended to October 1, 2008.

DATED: \*\*\*\*\*, 2007

Final Order: Permit G-11762

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WATER RESOURCES DEPT  
SALEM OREGON

Page 1 of 3



Dwight French, Administrator of  
Water Rights and Adjudications  
*for*  
Phillip C. Ward, Director

If you have any questions about statements contained in this document, please contact Ann L. Reece at (503) 986-0808.

If you have other questions about the Department or any of its programs, please contact our Water Resources Customer Service Group at (503) 986-0900

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WATER RESOURCES DEPT  
SALEM, OREGON



**NOTE: Include a copy of the "Important Notice" document along with the original copy of the Final Order being sent to the permit hold**

## Mailing List for Extension FO Copies

Application G-12905

FO Date: \*\*\*\*\*, 2007

Permit G-11762

**Original mailed to permit holder:**

Cline Butte Utility Company  
Alan VanVliet  
1230 Golden Pheasant  
Redmond, OR 97756

**Copies Mailed**

By:  
(SUPPORT STAFF)

on:  
(DATE)

**Copies sent to:**

1. WRD - Appl. File G-12905/ Permit G-11762
2. WRD - Watermaster District 11, Jeremy Giffin, Bend, OR
3. WRD- Ken Starr
4. WRD – Sarah Henderson, Technical Services (for MU and QM requiring Divison 86 plan)
5. WRD - Support Staff, Salem...*Permit record update*

**Fee paid as specified under ORS 536.050 to receive copy:**

None

**Receiving via e-mail (10 AM day of signature date)**

11. WRD – Water Master District 16 – Mike McCord, Salem
12. NWR Manager – send denial FO's only (does not want to see approvals)

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**WATER RESOURCES DEPT  
SALEM OREGON**

CASEWORKER: ALR

Final Order: Permit G-11762



**W&H PACIFIC**

920 S.W. Emkay Dr., Suite C-100  
Bend, Oregon 97702

May 13, 1999

Mr. Dallas Miller  
Water Rights Specialist  
Oregon Water Resources Department  
Commerce Building  
158 12th Street NE  
Salem, OR 97310-0210

**RE: Eagle Ridge Development Corporation**  
**OWRD File No. G-12905**  
**WHP File No. 526-0105**

Dear Dallas:

Thank you for your review of the Eagle Crest extension request for the referenced quasimunicipal permit. I have compiled responses to your questions and clarified the status of our source development. Your assistance and clarifications have been very helpful.

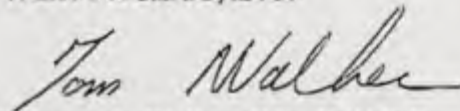
Eagle Crest has constructed source facilities, with a capacity equal to that allowed under the permit. We do not however utilize that full capacity on a regular basis. That full capacity is intended to assure an adequate flow rate in the case of wild fire or similar emergency. I have utilized our August 1998 total well water consumption to estimate our current use. In August, only two of our three wells were pumped. The quasimunicipal consumption is equivalent to  $\pm 540$  gpm, averaged over an entire month. That flow rate is approximately 40% of the flow rate authorized by the referenced permit.

Based upon these calculations and your clarifying correspondence and phone comments, it appears that Eagle Crest should proceed with the extension application. Although source facilities have been constructed, we have not yet beneficially utilized that capacity on a regular basis. Also, the water distribution system has not yet been extended to all lands within the service area.

Thank you again for your significant assistance. Please never hesitate to contact me if you have questions or need additional information.

Very Truly Yours,

**W&H PACIFIC, INC.**



Thomas A. Walker, P.E., C.W.R.E.  
Vice President

Cc: Alan VanVliet

512991aw.doc







# Oregon

John A. Kitzhaber, M.D., Governor

## Water Resources Department

Commerce Building  
158 12th Street NE  
Salem, OR 97310-0210  
(503) 378-3739  
FAX (503) 378-8130

May 4, 1999

THOMAS WALKER  
W&H PACIFIC  
920 SW EMKAY DR, SUITE C-100  
BEND, OR 97702

REFERENCE: File G 12905

Dear Mr. Walker:

Regarding your letter of May 4, 1999, I will try to clarify the permit requirements. If the peak use during the year is 1350 gpm under permit G 11762, then the quantity of water has been completely applied and an extension of time would not be necessary or possible. Because the permittee cannot exceed the permit limits.

If you are using 1350 gpm at peak use during the year then you should report full use and submit a final proof survey. We want the amount of water actually put to use, not the system capacity or the amount used in a test.

If that much water (1350 gpm) is not being used then you can send us a revised amount that is the amount actually used, and we can process the extension. A permit is limited by the amount of water allowed, it cannot be expanded even if all the area is not yet built. If the full amount is in use another permit should be applied for.

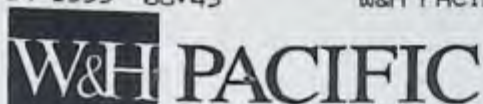
If you have questions please contact me at the address below or phone (503)378-3739 ext. 272.

Sincerely,

Dallas Miller  
Water Rights Specialist

cc: Watermaster, District 11, Eagle Ridge





920 S.W. Emkay Dr., Suite C-100  
Bead, Oregon 97702

May 4, 1999

Mr. Dallas Miller  
Water Rights Specialist  
Oregon Water Resources Department  
Commerce Building  
158 12th Street NE  
Salem, OR 97310-0210

**RE: Eagle Ridge Development Corporation**  
**OWRD File No. G-12905**  
**Permit No. G-11762**  
**WHP File No. 526-0105**

Dear Dallas:

Thank you for your review of the Eagle Crest extension request for the referenced quasimunicipal permit. You suggested the permit may have been perfected and no extension is required. I believe Eagle Crest would prefer your position, but I do have several questions.

Eagle Crest has constructed source facilities, with a capacity equal to that allowed under the permit. On a resort project, the full source capacity is often required relatively early in the development to assure adequate fire protection and full service under instantaneous demands. However, our water distribution system is not fully constructed. Large segments of raw land remain within the resort boundaries, where water mains and services have not been extended.

Even though our wells are constructed, they may operate at capacity only during emergency conditions. As the resort grows, the hours of operation for the wells will grow steadily.

If Eagle Crest proceeded with a final proof survey, we could document well capacity in conformance with the permit allowance. We could not demonstrate that water service has been provided for all lands within the resort boundary. Has our quasimunicipal permit been fully perfected? Could we continue to extend the water distribution system, continue to increase the volume of water consumption, and generally continue to expand the water system into undeveloped lands, even if the final proof survey were completed at this time?

Your assistance on the Eagle Crest water right is greatly appreciated. Your help with these questions will allow us to make a good decision and proceed with the right choice on the perfection of our rights.

Very Truly Yours,

**W&H PACIFIC, INC.**

A handwritten signature in cursive script that reads 'Tom Walker'.

Thomas A. Walker, P.E., C.W.R.E.  
Vice President

Cc: Alan VanVliet  
William D. Lyche





□ Is COBU recorded?  
in database

□ Is COBU complete  
and ready for possible  
in house or contractor  
RA?

---

Sent Tom Walker  
email asking about  
this file + G14857 6/27/03



Connie,

See email of 6-27-08.

for instructions.

Thx

Dwight





# Oregon

John A. Kitzhaber, M.D., Governor

## Water Resources Department

Commerce Building  
158 12th Street NE  
Salem, OR 97310-0210  
(503) 378-3739  
FAX (503) 378-8130

April 27, 1999

EAGLE RIDGE DEVELOPMENT CORP.  
WILLIAM LYCHE  
PO BOX 1215  
REDMOND, OR 97756

REFERENCE: File G 12905

Dear Mr. Lyche:

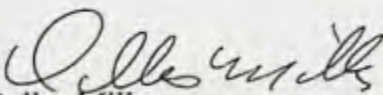
Regarding your extension request of permit G 11762, we need some more information.

Your request shows 1350 gpm being used under this permit. That is all the water allowed under this permit. If you are using the limit, we would not have any basis for extending the time, you should report full use and submit the Final Proof survey.

Please advise me if that amount you reported is the correct peak use.

If you have questions please contact me at the address below or phone (503)378-3739 ext. 272.

Sincerely,

  
Dallas Miller  
Water Rights Specialist

cc: Watermaster, District 11



Jef

**PRELIMINARY EXTENSION REVIEW ANALYSIS**  
**February 19, 1999**

The C date for this file was October 1, 1997.

612905

It appears that this permit should receive an extension.

The preliminary (quick review) analysis shows the permittee has answered Yes three times on questions numbered one and two.

The permittee has shown the following diligence:

Within past year - much - see 3a

Much development also prior to previous  
year. see 3b

An analysis of whether the amount of time needed to complete development and application of water has not been done. There may or may not be a need for additional conditions.





Oregon Water Resources Department  
725 Summer Street NE, Suite A  
Salem Oregon 97301-1266  
(503) 986-0900  
www.wrd.state.or.us

## Application for Extension of Time for Municipal and Quasi-Municipal Water Use Permits

TO THE DIRECTOR OF THE OREGON WATER RESOURCES DEPARTMENT

*A separate extension application must be submitted for each permit as per OAR 690-315-0070(2). This page, with an original signature by the permit holder of record, must accompany any application for extension of time.*

*This application and a summary of review criteria and procedures that are generally applicable to this application are available at <http://www.wrd.state.or.us/OWRD/PUBS/forms.shtml>*

|                                                        |                             |
|--------------------------------------------------------|-----------------------------|
| I, <u>Cline Butte Utility Company</u>                  | <u>Alan VanVliet</u>        |
| NAME OF PERMIT HOLDER [OAR 690-315-0070(1) and (3)(a)] | NAME OF CONTACT             |
| <u>1230 Golden Pheasant</u>                            | <u>Redmond</u>              |
| ADDRESS                                                | CITY                        |
| <u>541-504-2305</u>                                    | <u>alan@eagle-crest.com</u> |
| PHONE                                                  | E-MAIL ADDRESS              |
| <u>OR</u>                                              | <u>97756</u>                |
| STATE                                                  | ZIP                         |

the permit holder of: Application Number G-12905

Permit Number G-11762  
[OAR 690-315-0070(3)(b)]

do hereby request that the time in which to:

☐ complete construction (of diversion/appropriation works and/or purchase and installation of the equipment necessary to the use of water), which time now expires on October 1, \_\_\_\_\_, be extended to October 1, \_\_\_\_\_,

and/or the time in which to:

☒ apply water to full beneficial use under the terms and conditions of the permit, which time now expires on October 1, 1998, be extended to October 1, 2008.

I am the permittee, or have written authorization from the permittee, to apply for an extension of time under this permit. I certify that the information I have provided in this application is true and correct to the best of my knowledge.

Todd Samples  
Signature

3/30/07  
Date



CLINE BUTTE UTILITY COMPANY  
APPLCIATION FOR EXTENSION OF TIME  
FOR WATER RIGHT PERMIT G-11762

FEBRUARY 2007

PREPARED FOR:

Cline Butte Utility Company  
1230 Golden Pheasant  
Redmond, Oregon 97756

PREPARED BY:

Thomas A. Walker, P.E., C.W.R.E.  
W&H Pacific, Inc.  
920 SW Emkay Drive, Suite C-100  
Bend, Oregon 97702

**RECEIVED**

APR 03 2007

WATER RESOURCES DEPT  
SALEM, OREGON



**STATEMENT IN SUPPORT OF AN  
APPLICATION FOR AN EXTENSION OF TIME  
FOR PERMIT G-11762  
FEBRUARY 2007**

Cline Butte Utility Company (CBUC) is requesting an extension of time to apply water to full beneficial use under the terms and conditions of Permit G-11762. A time extension to October 1, 2008 is requested.

Permit G-11762 was originally issued to Eagle Crest, Inc. and subsequently assigned to Cline Butte Utility Company. The permit authorizes quasi-municipal use at the Eagle Crest destination resort in Deschutes County. Eagle Crest, Inc. remains the resort manager and operates the domestic water supply system through its subsidiary, Cline Butte Utility Company.

Permit G-11762 authorizes quasi-municipal use from three existing groundwater wells, referred to as Wells 6, 7, and 8. Significant progress has been made in perfecting Permit G-11762.

Cline Butte Utility Company, working collaboratively with the Oregon Water Resources Department (OWRD), is requesting this time extension to allow a subsequent permit amendment. The permit amendment was recommended by OWRD staff in a recent work session and will improve the overall efficiency and reliability of the Eagle Crest water supply system through interconnecting existing wells and water distribution systems. This extension and the subsequent amendment will also allow Cline Butte Utility Company to better manage the water rights at the resort.

A standard application form for an extension of time for a water right permit stipulates the following questions for the Applicant. In the following section, application questions are shown restated in bold text, with the Applicant's response or justification following in standard text.

**1. Did the actual construction of the water system/well drilling begin within the time specified in the permit?**

**Date construction began is:**

**Details of construction.**

Actual construction of the water system did begin within the timeframe specified in the permit. The enclosed well logs demonstrate initial construction began on September 18, 1991, well in advance of the deadline stipulated on the permit (May 31, 1995). Three wells have now been constructed and equipped with pumps and controls. Tens of miles of underground domestic water distribution piping have also been constructed and placed in service.

**2. Permits typically contain standard special conditions that must be satisfied to lawfully develop and use permitted water. In the development of this water right, have you satisfied the conditions contained in your permit?**

**a) Describe how you have complied with each condition contained in the original permit (and, if applicable, each condition contained in any order approving a permit amendment and/or a final order approving a prior extension of time). Include the date when the condition was satisfied.**

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**APR 03 2007**

**WATER RESOURCES DEPT  
SALEM, OREGON**



The following table summarizes permit conditions:

| Condition No. | Date Satisfied                           | Describe How Permit Condition Has Been Satisfied                                                                                                                |
|---------------|------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1             | 4-22-98                                  | Three groundwater wells have been constructed in conformance with the General Standards for the Construction and Maintenance of Water Wells in Oregon           |
| 2             | 1999                                     | Each well was equipped with a useable access port and/or an airline and pressure gage adequate to determine the water level elevation in the well at all times. |
| 3             | 1999                                     | Each well pump has been outfitted with a water meter and records have been maintained on a monthly basis for water use.                                         |
| 4             | 1995                                     | The permittee has reported general water use on an annual basis since completion of each well.                                                                  |
| 5             | 1991                                     | The permit holder has obtained and submitted static water level measurements for each well during March of each year since well construction                    |
| 6             | 1998                                     | Pump tests have been performed on each of the three wells.                                                                                                      |
| 7             | 9-18-91                                  | Actual construction work began in advance of the permit deadline.                                                                                               |
| 8             | June 2004                                | Construction was completed prior to the deadline in the permit.                                                                                                 |
| 9             | 1997, 1998, 1999, 2000, 2003, 2004, 2007 | Multiple time extension requests were submitted, including this current time extension request, to extend the time for complete application of water.           |

As noted, construction under Permit G-11762 was completed in conformance with the conditions of the permit. After consultation with OWRD, a time extension and subsequent permit amendment are proposed to better utilize wells under multiple permits and enhance the overall efficiency and reliability of the Eagle Crest resort domestic water supply system. Cline Butte Utility Company is seeking this extension to allow an application for a permit amendment, in conformance with the recommendations from the OWRD.

3. Provide evidence of physical progress made toward completion of the water system, and of progress made toward making beneficial use of water within the permitted time period (Chart-C); and if applicable, within the time period of the most recent extension granted (Chart-D).

### CHART -C

| INSERT DATES          | WORK ACCOMPLISHED BEFORE PERMIT WAS ISSUED<br><i>List any work done before the permit was issued- eg. Well drilled.</i>                                                                    | COST      |
|-----------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|
| 10-11-91 &<br>2-20-92 | Construct Wells #6 and #7                                                                                                                                                                  | \$400,000 |
| INSERT DATES          | WORK ACCOMPLISHED AFTER PERMIT WAS ISSUED<br>and PRIOR TO DATE SPECIFIED IN PERMIT<br>FOR COMPLETE APPLICATION OF WATER<br><i>List work/actions done during the permitted time period.</i> | COST      |
|                       | The permit was signed – find date above signature on last page of permit.                                                                                                                  |           |
| 1998                  | Construct Well #8                                                                                                                                                                          | \$250,000 |



|              |                                                                                                                                                                                                                                                                                        |            |
|--------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|
| 1996         | Construct 300,000 Gallon Storage Reservoir                                                                                                                                                                                                                                             | ±\$150,000 |
| 1994-1998    | Installed ±30,000 Lineal Feet of Water Distribution Piping and all Appurtenances                                                                                                                                                                                                       | ±\$900,000 |
|              | The permit specified "Actual Construction Work" shall begin ("A-Date")- not all permits contain this date.                                                                                                                                                                             |            |
| 10/1/1998    | The permit specified complete application of water to the use shall be made ("C-Date") – all permits contain this date.                                                                                                                                                                |            |
|              |                                                                                                                                                                                                                                                                                        |            |
| INSERT DATES | <b>WORK ACCOMPLISHED AFTER "C-DATE"</b><br><u>COMPLETE ONLY IF THIS IS YOUR 1<sup>ST</sup> APPLICATION FOR EXTENSION OF TIME:</u><br>List work done after the date specified in the permit for complete application of water up to the date of this Application for Extension of Time. |            |
|              | Total Cost to Date                                                                                                                                                                                                                                                                     |            |

#### CHART -D

| INSERT DATES | <b>WORK ACCOMPLISHED DURING THE LAST EXTENSION PERIOD</b><br>List all work done during the last authorized extension period.                                                                                      | COST         |
|--------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|
| 10/1/____    | "Extended From" date for complete application of water used in the 1 <sup>st</sup> (or the most recent) Application for Extension of Time.                                                                        |              |
|              |                                                                                                                                                                                                                   |              |
| 1998-2001    | Installed ±27,000 lineal feet of water distribution piping and all appurtenances                                                                                                                                  | ±\$810,000   |
|              |                                                                                                                                                                                                                   |              |
|              |                                                                                                                                                                                                                   |              |
| 10/1/____    | "Extended To" date for complete application of water resulting from the 1 <sup>st</sup> (or the most recent) Application for Extension of Time.                                                                   |              |
|              |                                                                                                                                                                                                                   |              |
| INSERT DATES | <b>WORK ACCOMPLISHED AFTER THE LAST EXTENSION PERIOD EXPIRED</b><br>List all work done after the last authorized date for complete application of water Up to the date of this Application for Extension of Time. | COST         |
|              |                                                                                                                                                                                                                   |              |
|              |                                                                                                                                                                                                                   |              |
|              |                                                                                                                                                                                                                   |              |
|              | Total Cost to Date                                                                                                                                                                                                | ±\$1,610,000 |

4. Cost of project to date: ±\$1,610,000

As noted above, the water distribution system is substantially complete throughout the Eagle Crest Resort, including service line extensions to each individual residence or unit. The domestic water distribution system is significant and represents an extensive capital investment in perfecting water right Permit G-11762. The estimated total cost of the well improvements and water distribution system to date is \$1,610,000.

5. Provide the maximum rate, or duty if applicable, of water diverted for beneficial use under this permit and/or prior extensions of time, if any, made to-date.



Wells 6, 7, and 8 were developed with the following typical maximum diversion rates.

- Well #6 – 1210 gallons per minute
- Well #7 – 260 gallons per minute
- Well #8 – 1760 gallons per minute

Total: 3230 gallons per minute

The typical maximum pumping rate for the three wells far exceeds the maximum diversion rates stipulated in quasi-municipal Permit G-11762. The permit authorized a maximum diversion of 3 cubic feet per second or 1347 gallons per minute. The cumulative pumping rates exceed the quasi-municipal limit imposed by the permit, so the maximum diversion rate applicable to the permit would be limited to 1347 gallons per minute. Additional water rights are also applicable to Wells 6, 7, and 8, which authorize the current diversion rates.

**6. Provide the total number of acres irrigated to-date under this permit.**

The acres of irrigation are not applicable to quasi-municipal Permit G-11762.

**7. Provide a summary of your future plans and schedule to complete the construction of the water system, and/or apply water to full beneficial use under the terms and conditions of the permit.**

As noted, Cline Butte Utility Company has worked cooperatively with the Oregon Water Resources Department staff to develop a long-term program for multiple water rights at the Eagle Crest Resort. The objective is to enhance operations and reliability of the overall domestic water system. Approval of this time extension will facilitate a subsequent permit amendment and enhance full beneficial use of the permit and other existing water rights at Eagle Crest.

Cline Butte Utility Company intends to file a permit amendment that would add another point of diversion for Permit 11762. The additional point of diversion is an existing well. No further construction is required. However, the permit amendment will allow multiple existing wells to contribute to the existing water distribution system, extended throughout the Eagle Crest Resort. The permit amendment will clarify the area of service, allow multiple wells to contribute to the system increasing reliability and efficiencies, assure redundant water supplies in the case of breakdowns or repairs, and generally improve the overall management of water supplies and water rights at the Eagle Crest Resort.

**8. Estimated remaining costs to complete the project:**

The estimated remaining cost to complete the project is limited to the application and processing of a permit amendment, estimated to cost approximately \$5,000.00.

**9. List the reasons why the project was not constructed, and/or water was not beneficially used within permit time limits. Providing supporting information for the reasons that best fits your circumstances.**

As noted, this time extension is requested to accommodate a permit amendment that has been developed and proposed in close collaboration with the Oregon Water Resources Department staff. Water rights and water management at Eagle Crest are complex and deserving of significant review and scrutiny by the Cline Butte Utility Company and the Oregon Water Resources Department. As noted, a recent work

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session with the Oregon Water Resources Department resulted in the recommendation for a permit amendment on multiple permits at Eagle Crest, including G-11762.

Cline Butte Utility Company demonstrated their good faith attempt to perfect multiple permits in their preparation and submittal of Claims of Beneficial Use. Based upon recent input from the Oregon Water Resources Department staff, those Claims of Beneficial Use have been withdrawn and this time extension application filed, with the primary objective of allowing a permit amendment to improve and enhance the overall use of water at the Eagle Crest Resort.

**10. Justify the time requested to complete the project and/or apply the water to full beneficial use.**

The Cline Butte Utility Company is requesting approximately 20 months of time extension. The 20 month extension request is expected to be adequate to obtain the desired permit amendment and re-file Claims of Beneficial Use under the terms of the permit amendment. The Cline Butte Utility Company intends to solicit expedited review under the Receipts Authority Rules as a part of the permit amendment, to assure compliance with the short time extension.

**11. Provide any other information you wish OWRD to consider while evaluating your extension of time application.**

As noted, the water distribution system for the Eagle Crest destination resort is extensive and complex. This time extension is intended to accommodate a subsequent permit amendment that will authorize interconnection of water distribution systems and use of multiple wells under multiple permits to enhance efficiency and operational characteristics of the overall water supply. The following table summarizes other water rights applicable to the water supply system.

**EAGLE CREST DESTINATION RESORT  
GROUNDWATER RIGHT SUMMARY**

| Permit Number | Description             | Maximum Diversion Rate | Comments        |
|---------------|-------------------------|------------------------|-----------------|
| G-11762       | Quasi-municipal         | 3.0 CFS                | Wells 6, 7, & 8 |
| G-11313       | Irrigation & Commercial | 4.28 CFS               | Wells 6, 7, & 8 |
| G-13856       | Quasi-municipal         | 3.34 CFS               | Well 9          |

The overall water supply system, served by Wells 6, 7, 8 and 9 (authorized by multiple permits), serves an estimated current population of approximately 3,400 persons during the peak summertime occupancy at the resort. The current population is estimated from the number of constructed residential units at the resort. A more detailed estimate of population and long-term consumption needs of the system are included in the Water Conservation and Management Plan, approved by the Oregon Water Resources Department on February 1, 2005.

The Cline Butte Utility Company respectfully requests careful consideration of this time extension and its good faith effort and intentions demonstrated in water right development and management work. The Cline Butte Utility Company has timely filed Claims of Beneficial Use, believing at the time to be the best management practice for authorized water use. Subsequent input from the Oregon Water Resources Department demonstrated the need for a permit amendment and this associated request for a time extension. This request therefore demonstrates a collaborative effort with the Oregon Water Resources Department to best utilize water resources at the resort.

APR 03 2007





920 SW Emkay, Suite C100  
Bend, Oregon 97702-1041  
541.388.4255  
Fax 541.388.4229

April 2, 2007

Oregon Water Resources Department  
725 Summer Street NE, Suite A  
Salem, Oregon 97301-1266

**Re: Cline Butte Utility Company  
Application No. G-12905  
Permit No. G-11762  
Application for Extension of Time  
WHP File No.: 31250.1005**

Gentlemen/Ladies:

On behalf of Cline Butte Utility Company, I have enclosed an application for an extension of time for the perfection of groundwater permit G-11762. Your review and approval are respectfully requested.

Permit G-11762 allows the development of groundwater for quasi-municipal use at the Eagle Crest destination resort in Central Oregon. Significant progress has been made in perfecting the permit. Cline Butte Utility Company prepared and submitted a Claim of Beneficial Use and site report for permit G-11762 in June of 2004. Subsequently we worked collaboratively with the Oregon Water Resources Department (OWRD) on a program to better utilize and better manage the water rights at Eagle Crest.

Following consultation with Mr. Dwight French and Ms. Laura Snedaker, Cline Butte Utility Company respectfully withdraws the June 2004 Claim of Beneficial Use and submits this application for an extension of time. The extension of time would allow amendment of the permit in conformance with the recommendations of the OWRD. The overall objective of the withdrawal of Claim of Beneficial Use, the extension, and the subsequent permit amendment will be to enhance the reliability and efficiency of the Eagle Crest domestic water supply system and better manage water rights. The Applicant is appreciative of the direction and assistance provided by the Department in this matter.

The following documents are attached in support of an application for an extension of time:

- Extension of Time Application Form
- Check in the amount of \$250.00 for Fees
- Permit G-11762
- Permit Assignment Confirmation
- Well Logs
- Time Extension Correspondence
- Statement in Support of an Application for Extension of Time
- Reimbursement Authority Estimate Application and Check in the Amount of \$125.00

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APR 03 2007

WATER RESOURCES DEPT  
SALEM, OREGON



W&H Pacific, Inc.

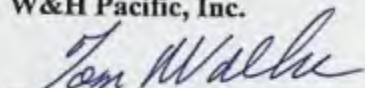
April 2, 2007

Page 2

Please consider the enclosed application for an extension of time, withdrawal of the previously submitted Claim of Beneficial Use, and the Applicant's objective to enhance overall water system operations and better manage existing water rights at the Eagle Crest Resort. Your review and consideration are appreciated and we look forward to your response.

Very truly yours,

W&H Pacific, Inc.



Thomas A. Walker, P.E., C.W.R.E.

Vice President

Cc: Alan VanVliet  
Todd Samples

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**APR 03 2007**

**WATER RESOURCES DEPT  
SALEM, OREGON**





# Oregon

John A. Kitzhaber, M.D., Governor

April 17, 2001

## Water Resources Department

Commerce Building  
158 12th Street NE  
Salem, OR 97301-4172  
(503) 378-3739  
FAX (503) 378-8130

Cline Butte Utility Co.  
1140 Nutcracker Rd  
Redmond, OR 97756

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APR 28 2001  
W & H PACIFIC, INC.

Reference: File G-12905

The assignment by deed to you of Permit G-11762 has been filed in the records of the Water Resources Department. Our records have been changed accordingly.

Receipt number 43400 covering the \$50 recording fee has been sent to W & H Pacific Inc.

Sincerely,

Dallas S. Miller  
Water Rights Specialist

Enclosure

cc: Watermaster #11  
Data Center/OWRD  
Jerol Andres, President if Eagle Ridge, PO Box 1215, Redmond, OR 97756  
W & H Pacific Inc., 920 SW Emkay, Suite C100, Bend, OR 97702

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APR 03 2007

WATER RESOURCES DEPT  
SALEM, OREGON



**Dwight French**

---

**From:** Dwight French  
**Sent:** Wednesday, July 02, 2008 2:22 PM  
**To:** 'Walker, Tom'  
**Cc:** 'Lisa Jaramillo'; Jerry Gainey  
**Subject:** RE: Eagle Crest

Tom,

Thanks for the response.

I'm going to have Jerry Gainey do a review of the COBU on Monday then we'll get you some feedback as to what information might be needed. I'm almost certain (we'll confirm early next week) that we're not going to ask Eagle Crest to pay for expedited processing (we'll be able to do it internally much faster and at no cost) since we/I already led you down a time consuming extension process that wasn't needed. Again, once we get the certificate issued you can proceed with the transfer.

Debbie Colbert and Lisa Jaramillo have both confirmed to me that we can take the existing permit amendment application and (with some additional information provided by you) turn it into a transfer file.

I'm printing this out for the file.

Dwight

Dwight French  
 Water Rights & Adjudications Division Administrator  
**Oregon Water Resources Department**  
 725 Summer Street NE, Salem, Oregon 97310  
 503-986-0900 (Main line) 503-986-0819 (Direct)  
 FAX: 503-986-0901

---

**From:** Walker, Tom [mailto:TWalker@whpacific.com]  
**Sent:** Tuesday, July 01, 2008 2:13 PM  
**To:** Dwight French  
**Cc:** Alan VanVliet  
**Subject:** RE: Eagle Crest

Dwight,

I have been out of town and am late responding to your email. Regardless, I greatly appreciate your help and time.

Our highest priority is to add our existing well #9 as an additional point of appropriation under permit G-11762 (Application G-12905). Use of well #9 would allow us to reduce the air problems associated with existing well #8. We are prepared to update the final proof survey for permit G-11762 and solicit expedited processing for a certificate and then pursue a transfer application for the additional point of appropriation. We attempted to amend permit G-11762 under T10492, which provides significant file information on our situation. As discussed in our recent meeting, your review of the existing final proof survey for permit G-11762 would provide the background on how our system operates.

Your experience and expertise are needed to make sure we are on the right track and that our

7/2/2008



applications can be successful. Again, any questions, comments and advice will be helpful and appreciated.

Tom Walker

---

**From:** Dwight French [mailto:frenchdw@wrdd.state.or.us]

**Sent:** Friday, June 27, 2008 1:53 PM

**To:** Walker, Tom

**Cc:** Lisa Jaramillo

**Subject:** Eagle Crest

Tom,

Maybe it's just Friday but I've gotten myself a little confused and I wanted to check in with you before I moved anything forward.

I believe there are two permit amendments pending T10492 (related to file G12905) and T10493 (related to G14857 - the mitigation permit). Lisa Jaramillo tells me that both PA's have contiguous property issues. Both G files have Claims of Beneficial Use pending.

Which COBU, or is it both, are you interested in expediting for COBU review and potential certificate issuance?

I have lots of time available the week of June 30 if you want to discuss or you can respond via email. I want to make sure I understand best how to help you and Eagle Crest.

Thank you,  
Dwight

Dwight French

Water Rights & Adjudications Division Administrator

**Oregon Water Resources Department**

725 Summer Street NE, Salem, Oregon 97310

503-986-0900 (Main line) 503-986-0819 (Direct)

FAX: 503-986-0901



**Jerry Gainey**

---

**From:** Alyssa Mucken  
**Sent:** Monday, July 07, 2008 12:13 PM  
**To:** Jerry Gainey  
**Subject:** RE: Water Use Reporting

I have water use reports for the 2004, 2005, and 2006 water year for Well 9. If they submitted a hard copy form for 2007, it's possible it's in my stack to enter.

If you want to see the data, let me know and I can generate a report for the file.

-----  
Alyssa Mucken  
Water Measurement Specialist

-----Original Message-----

**From:** Jerry Gainey  
**Sent:** Monday, July 07, 2008 12:05 PM  
**To:** Alyssa Mucken  
**Subject:** Water Use Reporting

Alyssa,

Do you have any water use reports for application G-14857, Permit G-13856, Cline Butte Utility Company or Eagle Crest, Inc. Any information will be appreciated.

Thanks

Jerry Gainey  
Water Rights Specialist/Certificates  
775 Summer St NE, Ste A  
Salem OR 97303

PHONE: (503) 986-0812  
FAX: (503) 986-0901

\*\*\*\*\*  
\*  
Please Note: under Oregon Law, messages to and from this e-mail address may be available to the public.  
\*\*\*\*\*  
\*



**Jerry Gainey**

---

**From:** Frost, Jim [JFrost@whpacific.com]  
**Sent:** Friday, September 26, 2008 11:24 AM  
**To:** Jerry Gainey  
**Cc:** Walker, Tom; Boggs, Niall; Alan VanVliet  
**Subject:** Cline Butte Utility Company - Static Water Measurements for March '08  
**Attachments:** 20080926115114511.pdf

Jerry,

As requested, we have attached the water level monitoring for wells 6, 7 and 8 at Eagle Crest. These were submitted per the conditions of multiple Eagle Crest permits, as listed on the attached letter. We greatly appreciate your assistance with these critical Eagle Crest water rights. Please feel free to contact me if additional information is needed.

Thanks,  
Jim Frost

9/26/2008



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WATER RESOURCES DEPT  
SALEM, OREGON

WHPacific

April 15, 2008

Oregon Water Resources Department  
Water Measurement and Reporting Section  
725 Summer Street NE, Suite A  
Salem, Oregon 97301-1266

Re: **Eagle Crest**  
**Static Water Level Reporting**  
**OWRD File No.: G-14857, G-12905, G-11824, & G-11387**  
**WHP File No.: 31250.1005**

Gentlemen/ladies:

OWRD requires annual static water level measurements and reporting for the maintenance of water rights. This letter summarizes our static water level measurements for Eagle Crest Resort.

**WELL #9 STATIC WATER LEVEL (OWRD FILE NO. G-14857 AND PERMIT G-13819):**

Well #9 was installed with two 1/4" galvanized steel airlines strapped to the pump column. We measured the static water level on both airlines on March 14, 2008. We forced air into the air tube until the pressure no longer continued to build. We then allowed pressure to settle momentarily and recorded 38 psi on both the WHPacific air gauge and the existing gauge in the well house.

The airline length is 590 feet long. The 38 psi air tube pressure and the 590 foot airline length results in a static water level of 502.2 feet. At the time of the measurement, the pump motor was warm to the touch, indicating the well had run within an hour of the static reading. The approximate 1 hour down time may not be adequate to allow the water level to return to static conditions.

**WELLS #6 AND #7 STATIC WATER LEVEL (OWRD FILE NO. G-12905 & G-12427 AND PERMITS G-11762 & G-11313):**

We conducted multiple readings on Wells #6 and #7 at Eagle Crest II. The wells are approximately 30 feet apart.

WHPacific staff conducted an airline measurement on March 14th. Well #7 has a direct reading gauge from which we recorded 524 feet for the static water level, after an idle time of approximately 4 months.

We conducted multiple measurements on the Well #6 airline with a hand pump. The line would not hold any pressure. Our observation suggests a leak in the airline. We consider the static water level measurement at Well #7 applicable to Well #6 because of the close proximity of the wells and because of the apparent airline problems at Well #6.

**WELL #8 STATIC WATER LEVEL (OWRD FILE NO. G-12905 & G-12429 AND PERMITS G-11762 & G-11313):**

WHPacific staff conducted an airline measurement on March 14th. Well #8 has a direct reading gauge from which we recorded 319.0 feet for the static water level, after an idle time of approximately 4 months.



**WELL #3 STATIC WATER LEVEL (OWRD FIL NO. G-11824 AND PERMIT G-10957):**

WHPacific staff conducted an airline measurement on March 14th. Well #3 has a direct reading gauge from which we recorded 245 feet for the static water level, after an idle time of approximately 0.9 hours.

**WELL #2 STATIC WATER LEVEL:**

We drilled a new hole for Well #2 last fall, with the pump and equipment transferred to the new hole. We used a probe in the original hole, and measured 249.3 feet from top of casing to water level. The well pump was moved out of the original hole approximately 30 days ago, and Well #2 pump in the new hole was off 3 hours before measuring.

**SUMMARY OF 2008 STATIC WATER LEVEL MEASUREMENTS:**

| Owner's Well ID          | Dept. ID Number | Well Depth | Date Drilled | Permit No./ App. No. | Air Tube Length | Static Water Level | Idle Period |
|--------------------------|-----------------|------------|--------------|----------------------|-----------------|--------------------|-------------|
| #2<br>(Replacement Well) |                 | 330'       |              | G-10530/<br>G-11387  | N/A             | 249.3'             | 3 hours     |
| #3                       | DESC 53714      | 290'       | 8-15-1988    | G-10957/<br>G-11824  | 271'            | 245'               | 0.9 hour    |
| #6                       | DESC 1083       | 800'       | 10-11-1991   | G-11762/<br>G-12905  | 550'            | 524'<br>(assumed)  | 4 months    |
| #7                       | DESC 1198       | 800'       | 2-20-1992    | G-11762/<br>G-12905  | 567'            | 524'               | 4 months    |
| #8                       | DESC 51680      | 600'       | 4-22-1998    | G-11762/<br>G-12905  | 395'            | 319.0'             | 4 months    |
| #9                       | DESC 54485      | 736'       | 11-15-2001   | G-13819/<br>G-14857  | 590'            | 502.2'             | +/- 1 hour  |

Additionally, to comply with the requirements of the final orders for the extensions of time for Permit Numbers G-11762 and G-13856, WHPacific measured static water levels in two additional wells on March 31, 2008:

**EAGLE CREST I – ENTRY AREA MONITORING WELL:**

This well has never been utilized and can be monitored with an electric probe. The static water level was measured by WHPacific with an electronic probe. The static water was measured at 259.1 feet below the top of the casing. The casing was 1.3 feet above the ground surface, therefore the static water level was 257.8 feet below ground surface.

**EAGLE CREST II – FAIRWAY NO. 2 MONITORING WELL:**

WHPacific attempted a measurement on this well by electronic probe. No water was encountered. According to Cline Butte Utility staff, the well sanded in. There was an air tube connected to the well that was visibly damaged so we did not attempt a pressure reading on it.

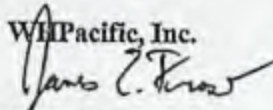


WHPacific, Inc.  
April 15, 2008  
Page 3

Please review my comments and contact me immediately if you have any questions or require additional information. Thank you for your review and assistance.

Very truly yours,

WHPacific, Inc.



James E. Frost, P.E.  
Project Manager

Cc: Alan VanVliet  
Todd Samples  
Bob McDaniel



April 15, 2008

Oregon Water Resources Department  
Water Measurement and Reporting Section  
725 Summer Street NE, Suite A  
Salem, Oregon 97301-1266

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SEP 26 2008

WATER RESOURCES DEPT  
SALEM, OREGON

WHPacific

Re: **Eagle Crest  
Static Water Level Reporting  
OWRD File No.: G-14857, G-12905, G-11824, & G-11387  
WHP File No.: 31250.1005**

Gentlemen/ladies:

OWRD requires annual static water level measurements and reporting for the maintenance of water rights. This letter summarizes our static water level measurements for Eagle Crest Resort.

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The airline length is 590 feet long. The 38 psi air tube pressure and the 590 foot airline length results in a static water level of 502.2 feet. At the time of the measurement, the pump motor was warm to the touch, indicating the well had run within an hour of the static reading. The approximate 1 hour down time may not be adequate to allow the water level to return to static conditions.

**WELLS #6 AND #7 STATIC WATER LEVEL (OWRD FILE NO. G-12905 & G-12427  
AND PERMITS G-11762 & G-11313):**

We conducted multiple readings on Wells #6 and #7 at Eagle Crest II. The wells are approximately 30 feet apart.

WHPacific staff conducted an airline measurement on March 14th. Well #7 has a direct reading gauge from which we recorded 524 feet for the static water level, after an idle time of approximately 4 months.

We conducted multiple measurements on the Well #6 airline with a hand pump. The line would not hold any pressure. Our observation suggests a leak in the airline. We consider the static water level measurement at Well #7 applicable to Well #6 because of the close proximity of the wells and because of the apparent airline problems at Well #6.

**WELL #8 STATIC WATER LEVEL (OWRD FILE NO. G-12905 & G-12429  
AND PERMITS G-11762 & G-11313):**

WHPacific staff conducted an airline measurement on March 14th. Well #8 has a direct reading gauge from which we recorded 319.0 feet for the static water level, after an idle time of approximately 4 months.



**WELL #3 STATIC WATER LEVEL (OWRD FIL NO. G-11824 AND PERMIT G-10957):**

WHPacific staff conducted an airline measurement on March 14th. Well #3 has a direct reading gauge from which we recorded 245 feet for the static water level, after an idle time of approximately 0.9 hours.

**WELL #2 STATIC WATER LEVEL:**

We drilled a new hole for Well #2 last fall, with the pump and equipment transferred to the new hole. We used a probe in the original hole, and measured 249.3 feet from top of casing to water level. The well pump was moved out of the original hole approximately 30 days ago, and Well #2 pump in the new hole was off 3 hours before measuring.

**SUMMARY OF 2008 STATIC WATER LEVEL MEASUREMENTS:**

| Owner's Well ID          | Dept. ID Number | Well Depth | Date Drilled | Permit No./ App. No. | Air Tube Length | Static Water Level | Idle Period |
|--------------------------|-----------------|------------|--------------|----------------------|-----------------|--------------------|-------------|
| #2<br>(Replacement Well) |                 | 330'       |              | G-10530/<br>G-11387  | N/A             | 249.3'             | 3 hours     |
| #3                       | DESC 53714      | 290'       | 8-15-1988    | G-10957/<br>G-11824  | 271'            | 245'               | 0.9 hour    |
| #6                       | DESC 1083       | 800'       | 10-11-1991   | G-11762/<br>G-12905  | 550'            | 524'<br>(assumed)  | 4 months    |
| #7                       | DESC 1198       | 800'       | 2-20-1992    | G-11762/<br>G-12905  | 567'            | 524'               | 4 months    |
| #8                       | DESC 51680      | 600'       | 4-22-1998    | G-11762/<br>G-12905  | 395'            | 319.0'             | 4 months    |
| #9                       | DESC 54485      | 736'       | 11-15-2001   | G-13819/<br>G-14857  | 590'            | 502.2'             | +/- 1 hour  |

Additionally, to comply with the requirements of the final orders for the extensions of time for Permit Numbers G-11762 and G-13856, WHPacific measured static water levels in two additional wells on March 31, 2008:

**EAGLE CREST I – ENTRY AREA MONITORING WELL:**

This well has never been utilized and can be monitored with an electric probe. The static water level was measured by WHPacific with an electronic probe. The static water was measured at 259.1 feet below the top of the casing. The casing was 1.3 feet above the ground surface, therefore the static water level was 257.8 feet below ground surface.

**EAGLE CREST II – FAIRWAY NO. 2 MONITORING WELL:**

WHPacific attempted a measurement on this well by electronic probe. No water was encountered. According to Cline Butte Utility staff, the well sanded in. There was an air tube connected to the well that was visibly damaged so we did not attempt a pressure reading on it.

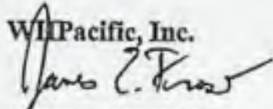


WHPacific, Inc.  
April 15, 2008  
Page 3

Please review my comments and contact me immediately if you have any questions or require additional information. Thank you for your review and assistance.

Very truly yours,

WHPacific, Inc.



James E. Frost, P.E.  
Project Manager

Cc: Alan VanVliet  
Todd Samples  
Bob McDaniel





Eagle Crest I Well #1 = DESC 38014  
 Eagle Crest I Well #2 = DESC 38014  
 Eagle Crest I Well #3 = DESC 3578, Record = DESC 3579  
 Eagle Crest I Well #6 = DESC 1083  
 Eagle Crest I Pilot Well = DESC 1198

RECEIVED  
 APR 28 1995  
 WATER RESOURCES DEPT  
 SALEM, OREGON

April 25, 1995

Oregon Water Resources Department  
 Water Right Section  
 158 12th Street, N.E.  
 Salem, Oregon 97310

Eagle Ridge Development Corp.  
 PO Box 1215  
 Redmond, OR 97756

Re: Eagle Crest  
 Water Right Permit G-11762  
 Static Water Level Reporting  
 526-0105

Appl. G - 12905

Gentlemen/Ladies:

Under the conditions of groundwater permit G-11762, Eagle Crest is obligated to report static water levels in all project wells each spring. Water level measurements have been completed for 1995 and are tabulated below.

In each case static water level measurements were obtained after the well pump had been off for the winter season for a time adequate to restore the normal static water level. Water level measurements were taken with an electronic probe or pressure gage and air line, and in all cases stated as a distance below the natural ground line at the well casing.

| EAGLE CREST GROUNDWATER WELLS<br>MARCH 1995<br>STATIC WATER LEVEL MEASUREMENTS |                               |                    |
|--------------------------------------------------------------------------------|-------------------------------|--------------------|
| WELL DESIGNATION                                                               | APPLICABLE OWRD<br>PERMIT NO. | STATIC WATER LEVEL |
| Eagle Crest I Well #1                                                          | APPL. G-11762 G-10530         | 226 Feet           |
| Eagle Crest I Well #2                                                          | G-10530                       | 244 Feet           |
| Eagle Crest I Well #3                                                          | APPL. G-11762 G-10957         | 242 Feet           |
| Eagle Crest I Well #6 PWD-Num = 2                                              | G-11762                       | 522 Feet           |
| Eagle Crest I P. Well PWD-Num = 3                                              | G-11762                       | 522 Feet           |

DESC 38014  
 DESC 38014  
 DESC 3578  
 DESC 1083  
 DESC 1198







RECEIVED

APR 28 1995

WATER RESOURCES DEPT.  
SALEM, OREGON

Oregon Water Resources Department  
April 4, 1995  
Page 2

This submittal is intended to meet all Eagle Crest obligations for static water level measurement and reporting. Please never hesitate to contact me if you have any questions, comments or needs for additional information. Thank you for your assistance.

Very truly yours,  
W&H PACIFIC, INC.

A handwritten signature in cursive script that reads 'Tom Walker'.

Thomas A. Walker, P.E., C.W.R.E.  
Associate

cc: Bill Lyche  
John Lind

TAW:tlc



JESC 1083

February 29, 1996

EAGLE RIDGE DEVELOPMENT CORPORATION  
PO BOX 1215  
REDMOND OR 97756

**RECEIVED**

APR 26 1996

WATER RESOURCES DEPT.  
SALEM, OREGON

RE: Required Well Water Level Report for Permit G-11762

Our records indicate that you are the holder of groundwater permit G-11762. If you are no longer the holder of this permit or no longer have an interest in it, please contact our department.

This permit contains a provision which requires the permittee to cause the static water level in the well(s) to be measured and reported to this agency annually. Consulting your permit will show the required times for measuring and reporting, as well as a list of persons eligible to make the measurements.

Please use this letter for your reply, placing any additional information on the back side if necessary. We recommend you keep a copy of this measurement report for your records.

### MEASUREMENT REPORT

Well Name or Number (if any): Eagle Crest II Well #6

Application and Permit number: Application #: G-12905 Permit #: G-11762

Person Making Measurement: Thomas A. Walker, P.E., C.W.R.E.

Description of Measuring Point: \*± 2' 5" feet above/below land surface

Static Water Level: 522.0 feet below land surface

Length of Time Well was Idle Before Measurement: Approximately one month

Calculation/Comments: \* The measurement point is the top of the well casing.

I hereby certify that, to the best of my ability, the information on this report is accurate and, at the time of measurement, representative of the static water level in the aquifer.

Signature of Person Making Measurement: Thomas A. Walker

Organization: W&H Pacific, Inc.

Thank you for your attention to this matter. If you have any questions about this notice, please call the Groundwater/Hydrology Section of the department at 378-8455 ext. 207.



EAGLE RIDGE DEVELOPMENT CORPORATION  
PO BOX 1215  
REDMOND, OR 97756

Oregon

WATER  
RESOURCES  
DEPARTMENT

RE: Required Well Water Level Report for Permit G - 11762

Our records indicate that you are the holder of groundwater permit G - 11762. If you are no longer the holder of this permit or no longer have an interest in it, please contact our department.

This permit contains a provision which requires the permittee to cause the static water level in the well(s) to be measured and reported to this agency annually. **Consulting your permit will show the required times for measuring and reporting, as well as a list of persons eligible to make the measurements.** Please use this letter for your reply, placing any additional information on the back side if necessary. We recommend that you keep a copy of this measurement report for your records.

### MEASUREMENT REPORT

Well Name or Number (if any): Wells #2 & #3 at Eagle Crest I, Wells #6 & #7 at Eagle Crest II  
Application and Permit numbers: Permits G-10530, G-10957 & G-11762  
Person Making Measurement: Thomas A. Walker, P.E. / Ric Kuss  
Description of Measuring Point: Top of well casing

Measuring Point Correction: + 2 feet feet above/below land surface

Static Water Level: Reference Attachment feet above/ below land surface

Length of Time Well was Idle Before Measurement: Reference Attachment

Date of Measurement: March 19, 1997

Calculation/Comments: All SWL measurements were obtained with air lines and gauges.

I hereby certify that, to the best of my ability, the information on this report is accurate and, at the time of measurement, representative of the static water level in the aquifer.

Signature of Person Making Measurement

Thomas A. Walker  
Thomas A. Walker, P.E., C.W.R.E.

Organization: : W&H Pacific

Thank you for your attention to this matter. If you have questions about this notice, please call the Groundwater/Hydrology Section of the Department at (503) 378-8455 ext. 207, or toll free at 1-800-624-3199.



Commerce Building  
158 12th Street NE  
Salem, OR 97310-0210  
(503) 378-3739  
FAX (503) 378-8130



**EAGLE CREST GROUNDWATER WELLS  
MARCH 1997  
STATIC WATER LEVEL MEASUREMENTS**

| WELL DESIGNATION       | APPLICABLE OWRD<br>PERMIT NO. | STATIC<br>WATER LEVEL | IDLE TIME PRIOR<br>TO MEASUREMENT |
|------------------------|-------------------------------|-----------------------|-----------------------------------|
| Eagle Crest I Well #2  | G-10530                       | 245 Feet              | ± 2 hours                         |
| Eagle Crest I Well #3  | G-10957                       | 242 Feet              | ± 60 days                         |
| Eagle Crest II Well #6 | G-11762                       | 521 Feet              | ± 30 days                         |
| Eagle Crest II Well #7 | G-11762                       | 521 Feet              | ± 30 days                         |

DESC 204

DESC 3578

DESC 1083

DESC 1192



July 24, 2008

Mr. Dwight French  
Oregon Water Resources Department  
725 Summer Street NE, Suite A  
Salem, Oregon 97301-1271

**Re: Cline Butte Utility Company  
Claim of Beneficial Use  
Permit G-11762  
Application G-12905  
WHP File No.: 31250.1005**

**RECEIVED**

**JUL 25 2008**

**WATER RESOURCES DEPT  
SALEM, OREGON**

Dear Dwight:

Thank you very much for your continuing assistance with water rights for the Eagle Crest destination resort in Deschutes County. We greatly appreciate your help and direction over many years. As discussed in our recent work session, I have enclosed a Claim of Beneficial Use under permit G-11762 for your review and approval.

As discussed, the complex water rights at Eagle Crest are critical to on-going operations. Eagle Crest, Inc., the parent company for Cline Butte Utility Company, has worked cooperatively with the Department since permits were initially issued. The attached Claim of Beneficial Use was initially submitted in June of 2004. Following extensive reviews and work sessions with the Department, and multiple water right applications and procedures, I have updated the original Claim of Beneficial Use and Site Report and respectfully request your review and approval.

The attached report and the numerous accompanying documents are considered thorough and complete. Regardless, we are eager to provide additional information or assist you in any way as you and your staff review this Claim of Beneficial Use and prepare the corresponding water right certificate.

Please note the enclosed water right map does not include all of the tax lots within the Eagle Crest destination resort. As you would expect, thousands of tax lots and dozens of tax lot maps would be required to represent all of the tax lot information at the resort. The numerous tax lots were created as the resort was developed and subsequently sold to individuals for homesites or other related purposes. In conformance with OAR 690-014-0170(7), Cline Butte Utility Company respectfully requests a waiver on the listing of tax lots. Any listing of tax lots at Eagle Crest would create an enormous file, with limited value.

Cline Butte Utility Company respectfully requests a second waiver for test pumping well number seven. Well seven is located approximately 30 feet from well site. Well six was test pumped for an extended period and monitored continuously by a hydrogeologist from David Newton Associates. Well seven was utilized as a monitoring well during the well number six test pumping. All reports and records for the well six test pumping are included in our final proof report. Because wells six and seven were



WHPacific, Inc.

July 24, 2008

Page 2

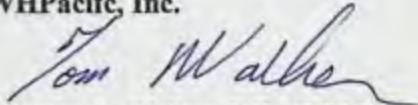
constructed in essentially identical formations to the same depth and located approximately 30 feet apart, any additional test pumping should be considered redundant and unnecessary.

Test pumping has the additional purpose of demonstrating beneficial use under the rules for a Claim of Beneficial Use. WHPacific analyzed daily pumping records for all project wells to conclude wells divert to beneficial use at the rate claimed, for four hours in an eight hour period. The analysis of pumping records is included in the attached report.

Thank you again for your significant assistance. We look forward to your review and response.

Very truly yours,

WHPacific, Inc.



Thomas A. Walker, P.E., C.W.R.E.

Cc: Alan VanVliet

**RECEIVED**

**JUL 25 2008**

**WATER RESOURCES DEPT  
SALEM, OREGON**



**EAGLE CREST DESTINATION RESORT  
GROUND WATER APPROPRIATION  
CLAIM OF BENEFICIAL USE  
AND  
SITE REPORT  
UNDER PERMIT G-11762**

**June, 2004  
Updated July, 2008**

**Prepared For:  
Cline Butte Utility Company  
P.O. Box 1215  
Redmond, OR 97756**

**Prepared By:  
Thomas A. Walker, P.E., C.W.R.E.  
WH WHPacific, Inc.  
920 SW Emkay Drive, Suite C-100  
Bend, OR 97702**

**RECEIVED**

**JUL 25 2008**

**WATER RESOURCES DEPT  
SALEM, OREGON**



**EAGLE CREST DESTINATION RESORT  
CLAIM OF BENEFICIAL USE AND SITE REPORT  
UNDER PERMIT G-11762**

**UPDATED JULY, 2008**

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Final Proof Survey Map

Permit G-11762

Permit Assignment Confirmation

Well Logs

October 18, 1991 Oregon Water Resources Department Correspondence on Well Location

Original Application

"Form A" Notice of Beginning of Construction

April 14, 2004 W&H Pacific Static Water Level Report

W&H Pacific Water Use Report

Pump Test Data for Wells 6, 7, and 8

Permit G-11313

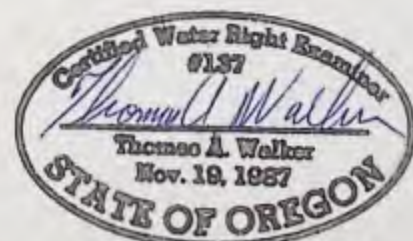
Domestic Water Distribution Plan

Time Extension Correspondence

**RECEIVED**

JUL 25 2008

WATER RESOURCES DEPT  
SALEM, OREGON



EXPIRES 6-30-2010



**EAGLE CREST DESTINATION RESORT  
CLAIM OF BENEFICIAL USE AND SITE REPORT  
UNDER PERMIT G-11762**

**UPDATED JULY, 2008**

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JUL 25 2008

WATER RESOURCES DEPT  
SALEM, OREGON

**NARRATIVE:**

Eagle Crest is an existing destination resort, located approximately one mile south of the Sisters-Redmond Highway, and approximately four miles westerly of Redmond, Oregon. Eagle Crest is located within Deschutes County.

The Eagle Crest destination resort includes single-family homes, multi-family residential units, restaurants, retail outlets, recreational facilities, golf courses, parks, significant lawns and landscaping, lakes and ponds, administrative offices, maintenance facilities, and many related facilities and appurtenances typical of a municipality. Eagle Crest is a sizable community with a current population estimated at 3,900 people in the peak summer season, and an ultimate summer population at full build out of over 6000 people.

The domestic water supply system includes an extensive piping network, providing service to approximately 1290 homesites or residential units in addition to the recreational and commercial facilities at the resort. Three groundwater wells serve the resort under Permit G-11762. Numerous other water rights also serve the Eagle Crest destination resort.

An extensive and separate underground irrigation system has also been constructed at the Eagle Crest destination resort. The three wells under Permit G-11762 serve domestic needs and irrigation needs. The irrigation water supply system includes a storage lake, underground mainline and lateral piping system, permanent set sprinklers, agricultural irrigation systems, and standard landscape irrigation systems. Well pumps and controls are designed to automatically meet both irrigation and domestic needs.

This claim of beneficial use and site report is limited to Permit G-11762 for quasi-municipal use at the Eagle Crest destination resort. The permit accommodates the use of three groundwater wells, referred to as wells 6, 7, and 8.

This claim of beneficial use and site report will describe existing components of the water supply system at the Eagle Crest destination resort, evaluate all conditions of the original permit that allow the use of water, and provide recommendations for the ultimate water right certificate. Under Oregon Water Law, the quantity of water allowed under the final water right certificate will be restricted to that allowed under the permit, or the amount of water beneficially utilized, whichever is less. In this case, Eagle Crest, Inc. has beneficially utilized water to the full extent allowed under the permit, and the limitation imposed by the permit shall also apply to the certificate.

**PERMITEE AND PROPERTY OWNER INFORMATION:**

The Permittee is the Eagle Ridge Development Corporation, a subsidiary of Eagle Crest, Inc. Permit G-11762 was assigned to Cline Butte Utility Company, another subsidiary company of Eagle Crest, Inc., in April of 2001. (Reference the attached exhibit).

As the Eagle Crest destination resort was developed, lots, residential units, and commercial buildings have been sold and many components of the project dedicated to the Eagle Crest Homeowner's Association. Regardless, Eagle Crest, Inc. remains the resort manager and operates the domestic and irrigation water supply systems through its subsidiary, Cline Butte Utility Company. Pertinent information for the Permittee is shown below:



Eagle Crest, Inc.  
P.O. Box 1215  
Redmond, OR 97756  
Phone: (541) 923-0807  
Contact: Alan VanVliet  
Development Manager

Cline Butte Utility Company  
1230 Golden Pheasant  
Redmond, OR 97756  
Phone: (541) 504-2305  
Contact: Bob McDaniel  
Manager

**RECEIVED**

JUL 25 2008

WATER RESOURCES DEPT  
SALEM, OREGON

#### **SOURCE:**

The water source under Permit G-11762 is three groundwater wells, located at the Eagle Crest destination resort. Three separate wells, referred to as wells 6, 7, and 8 serve a broad range of water needs under a quasi-municipal use designation.

Well logs are attached for each well and describe the depth, lithology, bore diameter, casing diameter, well driller, and other related information. The location of the wells are noted on the final proof survey map, which is attached. Two of the three wells are in close proximity to the location noted on the permit. Well number eight is located approximately one quarter mile south of the permit location. An October 18, 1991 letter from the Oregon Water Resources Department (attached) addresses the location of wells 6, 7, and 8 under a separate and compatible irrigation water right and provides the applicant flexibility on well locations.

Well logs document water bearing zones at significant depth, in what is considered the Deschutes Formation. Water quality is excellent as demonstrated by years of chemical testing under the Oregon Health Division requirements for domestic water supplies.

#### **DIVERSION POINTS:**

Attached well logs describe each of the three wells constructed under Permit G-11762. Each of the wells were constructed by Mr. Bryon Stadel, of STACO Well Services, Inc.

Information about each of the wells is summarized in the following table:

**WELL AND PUMP INFORMATION SUMMARY:**

| Well Number | Casing Diameter | Total Depth | Pump Type   | Pump Model        | Static Water Level from Original Well Log | Static Water Level from March 2004 | Well Construction Date |
|-------------|-----------------|-------------|-------------|-------------------|-------------------------------------------|------------------------------------|------------------------|
| 6           | 14 Inch         | 800 Ft.     | Turbine     | Goulds 12RJHC     | 518 Ft.                                   | 523 Ft.                            | 02/20/1992             |
| 7           | 6 Inch          | 800 Ft.     | Submersible | Berkley 6TP175    | 528 Ft.                                   | 523 Ft.                            | 10/11/1991             |
| 8           | 14 Inch         | 600 Ft.     | Turbine     | American 12-H-120 | 312 Ft.                                   | 312 Ft.                            | 04/22/1998             |

A well pump test was conducted for each of the three wells at the Eagle Crest Resort. Pump test information is attached as an exhibit. Available pump test information for well number seven includes a 15-minute standard pump test from 1991. In addition, well number seven was utilized as an observation well in the production drawdown testing for well number six. Because wells six and seven are approximately 30 feet apart and both completed to the same depth, no additional testing was conducted.

Each of the three well pumps have been designed and constructed to convey water to either the irrigation water supply system or the domestic water supply system. For example, the deep well turbine pump at Well #6 automatically pumps into the domestic water supply system whenever the storage reservoir signals for refilling. The relatively high head associated with the domestic water reservoir results in a discharge rate of approximately 450 gallons per minute into the domestic water system. Well #6 can also automatically discharge to a nearby



irrigation storage lake. At an open discharge to the irrigation lake, well #6 can operate at approximately 1210 gallons per minute. The existing wells and well pumps divert water to the domestic system whenever the storage reservoir level is diminished, and also can divert water to the irrigation system at a much higher flow rate, again typically under automatic control.

Wells 6, 7, and 8 serve quasi-municipal water right permit G-11762 and permit G-11313 for irrigation and commercial uses. The production capacity of well pumps can equal the cumulative authorized diversion of both permits. Permits G-11762 and G-11313 are attached.

#### PUMPS AND MOTOR:

Pump, motors, and models are described in the prior table for each of the three wells. The three wells and associated well pumps have served the Eagle Crest destination resort effectively and reliably for many years. The well house design accommodates both irrigation and domestic needs typically under fully automatic operation.

For a groundwater appropriation claim of beneficial use, the most important condition is the discharge rate for each pump. Each of the three pumps operates on a regular basis into the domestic system and into the irrigation system. The quasi-municipal use designation on water right permit G-11762 encompasses a broad range of uses at the destination resort, including normal irrigation and standard domestic service. Therefore, the maximum pumping rate, applicable on the irrigation system, is appropriate for this claim of beneficial use.

WHPacific provided the design for each of the well pumps at the Eagle Crest destination resort and monitors water use and pump house records on a regular basis. Cline Butte Utility Company maintenance personnel typically record pumping rates on a regular basis. WHPacific has reviewed pumping records and summarized pumping rates while operating into the irrigation system, for use in establishing the maximum diversion rate under this claim of beneficial use. Actual pumping rates into the irrigation system are summarized for each well below.

#### WELL PUMP TYPICAL MAXIMUM DIVERSION RATES

| Well Number  | Discharge Rate   |
|--------------|------------------|
| 6            | 1210 gpm         |
| 7            | 260 gpm          |
| 8            | 1760 gpm         |
| <b>Total</b> | <b>3,230 gpm</b> |

**RECEIVED**

**JUL 25 2008**

**WATER RESOURCES DEPT  
SALEM, OREGON**

To conclude beneficial use of water at the maximum diversion rate, WHPacific analyzed daily pumping records, collected by the Cline Butte Utility Company staff. The following water use was recorded for August 2, 2007, and was based upon water meter readings at each well head. Meter readings were obtained at 7:35 AM on August 1<sup>st</sup> and again at 7:35 AM on August 2<sup>nd</sup> for wells six and seven. Meter readings were obtained at 7:45 AM on August 1<sup>st</sup> and 7:30 AM on August 2<sup>nd</sup> for well eight.

| WATER USE         |                 |                 |                                   |
|-------------------|-----------------|-----------------|-----------------------------------|
| Well #6           | Well #7         | Well #8         | August 2, 2007<br>Water Use Total |
| 1,939,000 gallons | 369,500 gallons | 625,777 gallons | 2,934,277 gallons                 |
|                   |                 |                 |                                   |

Water use from the three wells over the 24 hour period equals 2038 gallons per minute. Well six discharged either to the domestic water distribution system and the domestic water storage reservoir or to a golf course lake, where water is re-pumped to the golf course irrigation system. On the particular day of analysis (August 2, 2007), wells seven and eight discharged to golf lakes for re-pumping into the golf irrigation distribution system. All water use was beneficial and the average diversion rate over the entire day exceeded the maximum diversion rate for the permit.



As noted earlier, a Claim of Beneficial Use must document the maximum diversion rate allowed under the original water right permit and the diversion rate that represents actual beneficial utilization of water. The lesser of the two limits will be reflected on the water right certificate. In this case, the normal pumping rate far exceeds the maximum diversion rates stipulated in the quasi-municipal permit. Permit G-11762 authorized a maximum diversion of 3 CFS or 1347 gallons per minute. The cumulative pumping rates exceed the quasi-municipal limit imposed by the permit, so the maximum diversion rate for the final certificate will be limited by the permit condition of 3 CFS or 1,347 gallons per minute.

Following sections of this Claim of Beneficial Use describe additional water rights applicable to wells 6, 7, and 8 which authorize the current diversion rates.

#### **PIPE:**

The following table documents the estimated total quantity of mainline domestic and irrigation piping at Eagle Crest, obtained from the project water system plan (attached). Construction record drawings for the irrigation system are not readily available. Golf course and grounds maintenance personnel however indicate mainlines follow fairways. I estimated approximately 45,000 lineal feet of 6 to 12 inch buried mainline have been installed for golf course and common area irrigation.

The following table includes the Eagle Crest II area of the resort only. As noted, Wells 6, 7, and 8 can serve the Eagle Crest I, II, and III areas of the resort and the entire resort is included in the area of use for permit G-11762. However, other wells and permits apply to Eagle Crest I and III also. Including pipe quantities for the Eagle Crest II area only will prevent double reporting on other final proof surveys.

#### **EAGLE CREST DESTINATION RESORT DOMESTIC WATER DISTRIBUTION SYSTEM**

| Water Main Nominal Diameter | Estimated Lineal Feet |
|-----------------------------|-----------------------|
| Two to Four Inch            | 700                   |
| Six Inch                    | 2,200                 |
| Eight Inch                  | 31,600                |
| Ten Inch                    | 14,900                |
| Twelve Inch                 | 7,400                 |

#### **EAGLE CREST DESTINATION RESORT IRRIGATION WATER DISTRIBUTION SYSTEM**

| Water Main Nominal Diameter | Estimated Lineal Feet |
|-----------------------------|-----------------------|
| Six to Twelve Inch          | 45,000                |

**RECEIVED**

JUL 25 2008

WATER RESOURCES DEPT  
SALEM, OREGON

The domestic water supply system at the Eagle Crest Resort has not yet been extended to all areas of the resort. Development is still underway. Regardless, Eagle Crest was instructed by the Oregon Water Resources Department to prepare this claim of beneficial use because the source facilities have been developed and utilized at their ultimate diversion rate. The attached correspondence from WHPacific under the time extension correspondence, describes the conversations and directions from the Oregon Water Resources Department regarding the appropriateness of this claim of beneficial use, even though the water distribution system is still subject to further expansion.



## USES:

Water use at the Eagle Crest destination resort has generally been described as domestic and irrigation, which includes a multitude of uses. The following uses have been observed at the Eagle Crest destination resort.

- Domestic
- Commercial
- Irrigation
- Lake Maintenance
- Aesthetics and Golf Hazards
- Dust Control
- Fire Protection
- Livestock Watering
- Construction Watering
- Water System Maintenance, including flushing and testing
- Irrigation for Frost Control
- Out of Season Irrigation
- Agricultural Uses
- Maintenance Activities, including flushing, washing, and dust control
- Recreation, including Swimming Pools, Jacuzzi, Steam Rooms, Spas, Sport Center, etc
- Other uses typical and ordinary for a municipality

The place of use includes the boundaries of the Eagle Crest destination resort. The attached map of the Eagle Crest destination resort generally describes three separate expansion projects at the resort. The original resort development occurred easterly of the Cline Falls Highway and is generally referred to as Eagle Crest I. The Eagle Crest destination resort was expanded to include the Eagle Crest II area, immediately west of the Cline Falls Highway, where wells 6, 7, and 8 are located. Wells 6, 7, and 8 primarily serve the Eagle Crest II expansion area, however water main extensions and connections allow wells 6, 7, and 8 to serve the Eagle Crest I area and the Eagle Crest III area.

Eagle Crest III is a recent expansion of the destination resort. Eagle Crest I, II, and III are served by the same off-site domestic water storage reservoir. Wells 6, 7, and 8 contribute directly to the domestic water storage reservoir and therefore can serve all of the lands within Eagle Crest I, II, and III.

The actual place of use, depicted by the exterior boundary of the Eagle Crest destination resort, is demonstrated on the attached final proof survey map.

The place of use includes areas not identified in the original application. The Eagle Crest III resort expansion was not contemplated at the time of the original application. A subsequent groundwater permit provides an additional supplemental source for the Eagle Crest water supply system (Reference permit G-13856). Similarly, prior groundwater permits G-10530 and G-10957 provide a water supply primarily for the Eagle Crest I area. Regardless, water from wells 6, 7, and 8 is delivered to the off-site domestic reservoir and serves all areas of the resort, and therefore the area of use includes the entire resort on the attached final proof survey.

## ADDITIONAL WATER RIGHTS SERVING THE EAGLE CREST DESTINATION RESORT:

As noted, a number of water rights have been obtained for the Eagle Crest destination resort. Water rights are summarized in the following table. This claim of beneficial use is limited to Permit G-11762. However, a summary of additional water rights at the Eagle Crest destination resort helps to describe the overall water supply system and explain why pump capacities exceed permit G-11762 diversion rates. In most cases, each well accommodates multiple groundwater permits. Surface water permits are also appurtenant to portions of Eagle Crest and supplement the overall water supply system.

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**EAGLE CREST DESTINATION RESORT  
GROUNDWATER RIGHT SUMMARY**

| Permit Number     | Description             | Maximum Diversion Rate | Comments        |
|-------------------|-------------------------|------------------------|-----------------|
| G-11762           | Quasi-municipal         | 3.0 CFS                | Wells 6, 7, & 8 |
| G-11313           | Irrigation & Commercial | 4.28 CFS               | Wells 6, 7, & 8 |
| G-13856           | Quasi-municipal         | 3.34 CFS               | Well 9          |
| G-10530           | Quasi-municipal         | 1.70 CFS               | Wells 1 & 2     |
| G-10957           | Quasi-municipal         | 2.45 CFS               | Well 3          |
|                   |                         |                        |                 |
| Certificate 52185 | Irrigation              | 1.47 CFS               | Well 2          |

**LIFT:**

Typical operating conditions for each of the well pumps is summarized in the following table. Operating conditions are obtained from Cline Butte Company pressure and flow rate observations at each well house and the original designs by WHPacific.

**WELL OPERATING CONDITIONS**

| Well Number | Typical Operating Head for the Irrigation System | Reported Typical Flow Rate into the Irrigation System | Existing Pump Motor Horsepower |
|-------------|--------------------------------------------------|-------------------------------------------------------|--------------------------------|
| 6           | 550 Feet                                         | 1210 gpm                                              | 250 HP                         |
| 7           | 530 Feet                                         | 260 gpm                                               | 50 HP                          |
| 8           | 370 Feet                                         | 1760 gpm                                              | 250 HP                         |

In each case, WHPacific confirmed the pump is capable of producing the noted head and flow characteristics at the horsepower rating of the motor.

As noted previously, the total discharge rate of the three well pumps far exceeds the allowable diversion rate under Permit G-11762. However, multiple water rights apply to wells 6, 7, and 8, which authorize the noted diversion rates. The important conclusion from this summary of operating conditions is that wells have been constructed and well pumps installed and operated in a manner that allows full appropriation under Permit G-11762.

**SURVEY TIE:**

Most of the Eagle Crest destination resort project has been platted in the Deschutes County official records. The enclosed final proof survey map documents existing streets and lots and establishes a sectional grid throughout. The place of use is the exterior boundary of the Eagle Crest destination resort, which typically follows sectional lines, rivers, or highways. In all cases, detailed property boundary information is available from final plats in the Deschutes County Surveyor's records.

The location of wells is based upon past surveys by WHPacific of the well casings. The well locations were obtained under the direction of a licensed professional land surveyor from WHPacific and the specific coordinate information for each well is reduced and summarized on the attached claim of beneficial use map.

Actual well locations vary from the locations on the water right permit, as expected. The water right permit authorizes development of water sources and some flexibility is afforded the Permittee under the terms and intent of a water right permit.

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WATER RESOURCES DEPT  
SALEM, OREGON**SPECIAL CONDITIONS:**

Permit G-11762 authorizes the use of water from three wells in the Deschutes Basin for quasi-municipal use. The use is limited to no more than 3.0 cubic feet per second or its equivalent in case of rotation, measured at the wells. Permit G-11762 stipulates the proposed place of use under the permit. As noted, the attached claim of beneficial use includes the areas depicted on the original permit, but also the Eagle Crest III expansion area.

In water right work for various destination resort projects in Central Oregon, WHPacific was advised of State Statutes ORS 537.211 (4), ORS 537.211 (9) and ORS 540.510 (3)(a), which indicate water may be applied to beneficial use on lands to which the right is not appurtenant if the use continues to be for municipal purposes. Definitions appear to include the quasi-municipal use at Eagle Crest as applicable. In addition, a right-of-way grant has been awarded Eagle Crest, Inc., between the Eagle Crest II and III lands, which appears to be interpreted under the statutes as establishing a contiguous property. WHPacific is not qualified to interpret the law, but the Department's interpretation of these statutes indicates the place of use can and should include all of the Eagle Crest destination resort, regardless of the original application boundary.

The permit stipulates well construction in accordance with the general standards for the construction and maintenance for water wells in Oregon. Eagle Crest, Inc. retained STACO Well Services, Inc. to construct all three wells and specified conformance with the noted general standards. To the best of my knowledge, wells were constructed in general accordance with the noted standards. Each well was equipped with a usable access port and an airline. Not all airlines remain operable due to kinking or damage which likely occurred during pump installation. Eagle Crest, Inc. has agreed to replace or repair the airlines whenever well pumps are removed.

Permit G-11762 requires monitoring of water use. Each of the three wells is equipped with a water meter and records are maintained on a daily and monthly basis for water use. WHPacific has reported water use on an annual basis to the Oregon Water Resources Department and can confirm conformance with the intent of the permit condition.

The permit further stipulates the measurement of static water levels for each well during March of each year. Again, WHPacific has reported static water level measurements and is able to confirm compliance with the requirements.

As noted above, the airline in Well #6 has been damaged and is inoperable. WHPacific however utilized Well #7, located only 30 feet away, to obtain static water level information. The pump test for Well #6 confirmed hydraulic connection of the two wells, as expected. The static water levels closely agree with the original well log, pump test, and have been consistent from year to year.

Permit G-11762 requires the submittal of a pump test, meeting the Department's standards. A pump test is included in the Appendix for each of the three wells.

The permit stipulates that actual construction work shall begin on or before May 31, 1995 and shall be completed on or before October 1, 1997. Complete application of the water should be made on or before October 1, 1998. The attached notices of completion and well logs 6 and 7 demonstrate compliance with initiation of construction. On behalf of Eagle Crest, Inc., WHPacific also submitted multiple water right extension applications. Several typical letters and subsequent correspondence from the Oregon Water Resources Department are included in the Appendix to document appropriate time extension applications and acknowledgement by the Department.

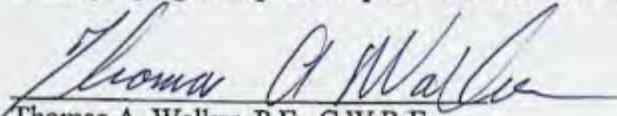
**SUMMARY REMARKS:**

In summary, quasi-municipal use has been confirmed throughout the Eagle Crest destination resort, as noted on the attached final proof survey map. Water has been beneficially utilized from each of the three existing wells and the full permit appropriation of 3.0 CFS can be diverted and delivered in the irrigation and domestic water supply systems. The original permit establishes the limitation on this claim of beneficial use at 3.0 CFS. To the best of my knowledge and belief, Eagle Crest, Inc. and the Cline Butte Utility Company have beneficially utilized water in conformance with the intent of Permit G-11762 and should be granted a water right certificate for the full

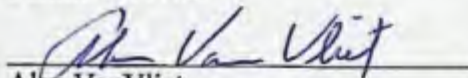


amount of the permit. The area of use should include the entire Eagle Crest destination resort, as depicted upon the attached final proof survey map.

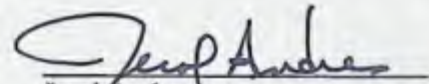
The final proof survey and inspection of use, as found to be completed under the terms and conditions of Permit G-11762, was completed by WHPacific in May and June of 2004. The facts obtained in this report and the accompanying final proof map area are correct to the best of my knowledge.

  
Thomas A. Walker, P.E., C.W.R.E.  
WHPacific, Inc.

I Alan VanVliet and Jerol Andres, agree to the findings of the Certified Water Rights Examiner and do submit this site report, map, and claim of beneficial use for the water provided under the terms and conditions of my Permit G-11762.

  
Alan VanVliet  
Eagle Crest, Inc.

DATE: 7/22/08

  
Jerol Andres  
Cline Butte Utility Company

DATE: 7-22-08

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**EAGLE CREST DESTINATION RESORT**  
**WATER RIGHTS MAP**  
**FINAL PROOF SURVEY**  
**JUNE, 2004**  
**(UPDATED JULY, 2008)**  
 LOCATED WITHIN TOWNSHIP 15 SOUTH, RANGE 12 EAST, W.M.

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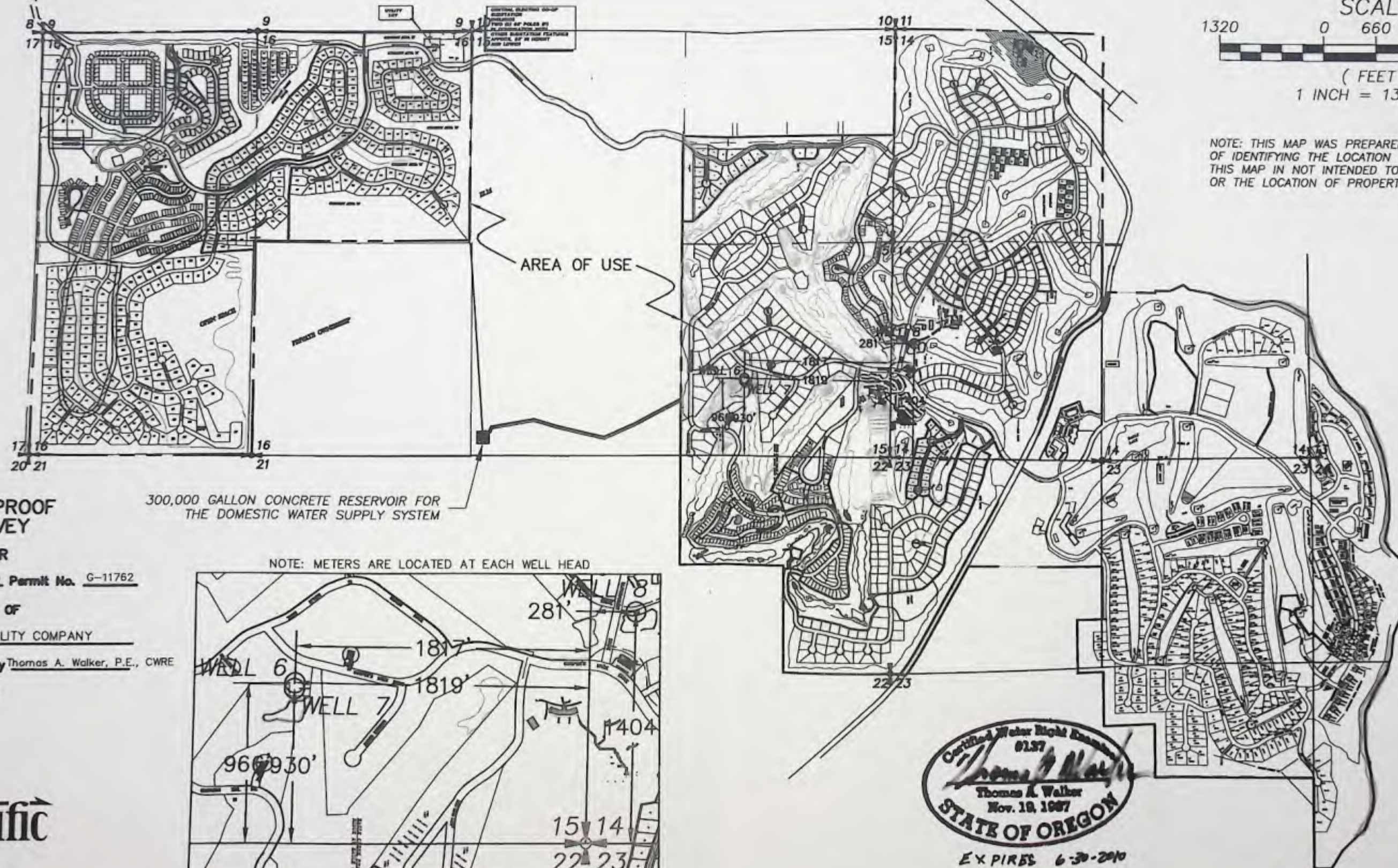


**SCALE**

1320 0 660 1320 2640

( FEET )  
 1 INCH = 1320 FT

NOTE: THIS MAP WAS PREPARED FOR THE PURPOSE  
 OF IDENTIFYING THE LOCATION OF WATER RIGHTS.  
 THIS MAP IS NOT INTENDED TO PROVIDE DIMENSIONS  
 OR THE LOCATION OF PROPERTY OWNERSHIP LINES.



**FINAL PROOF  
 SURVEY**

**UNDER**

Application No. G-12905 Permit No. G-11762

**IN NAME OF**

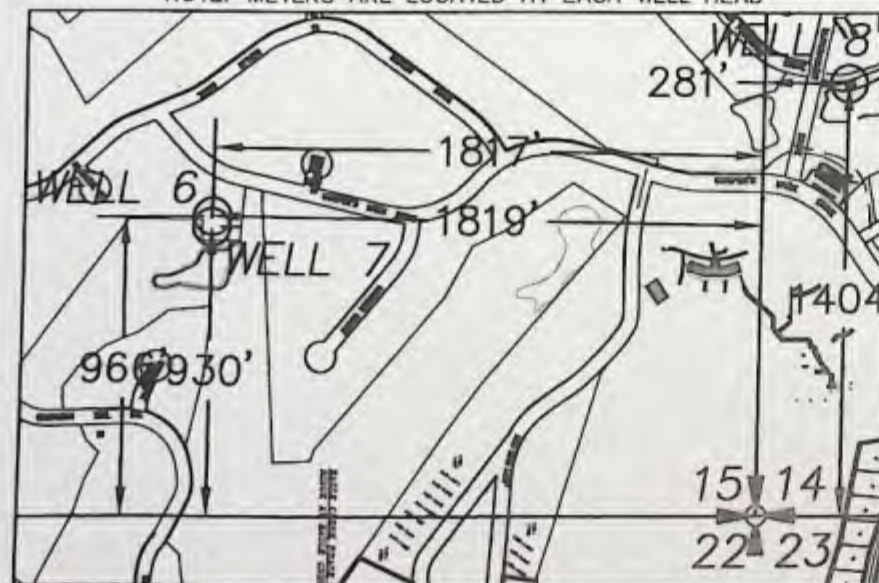
CLINE BUTTE UTILITY COMPANY

Surveyed JUNE, 2004, by Thomas A. Walker, P.E., CWRE

UPDATED JULY 14, 2008

7/14/2008  
 EC04FPS.DWG

NOTE: METERS ARE LOCATED AT EACH WELL HEAD



**DETAIL**



**WHPacific**

920 SW Emory Dr  
 Bend, OR 97702  
 541-388-4255 Fax 541-388-4229  
 www.whpacific.com



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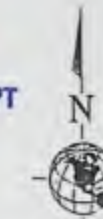


EAGLE CREST DESTINATION RESORT  
WATER RIGHTS MAP  
FINAL PROOF SURVEY  
JUNE, 2004

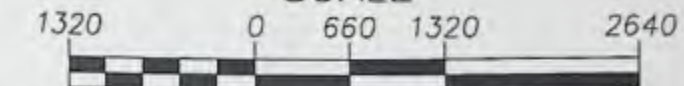
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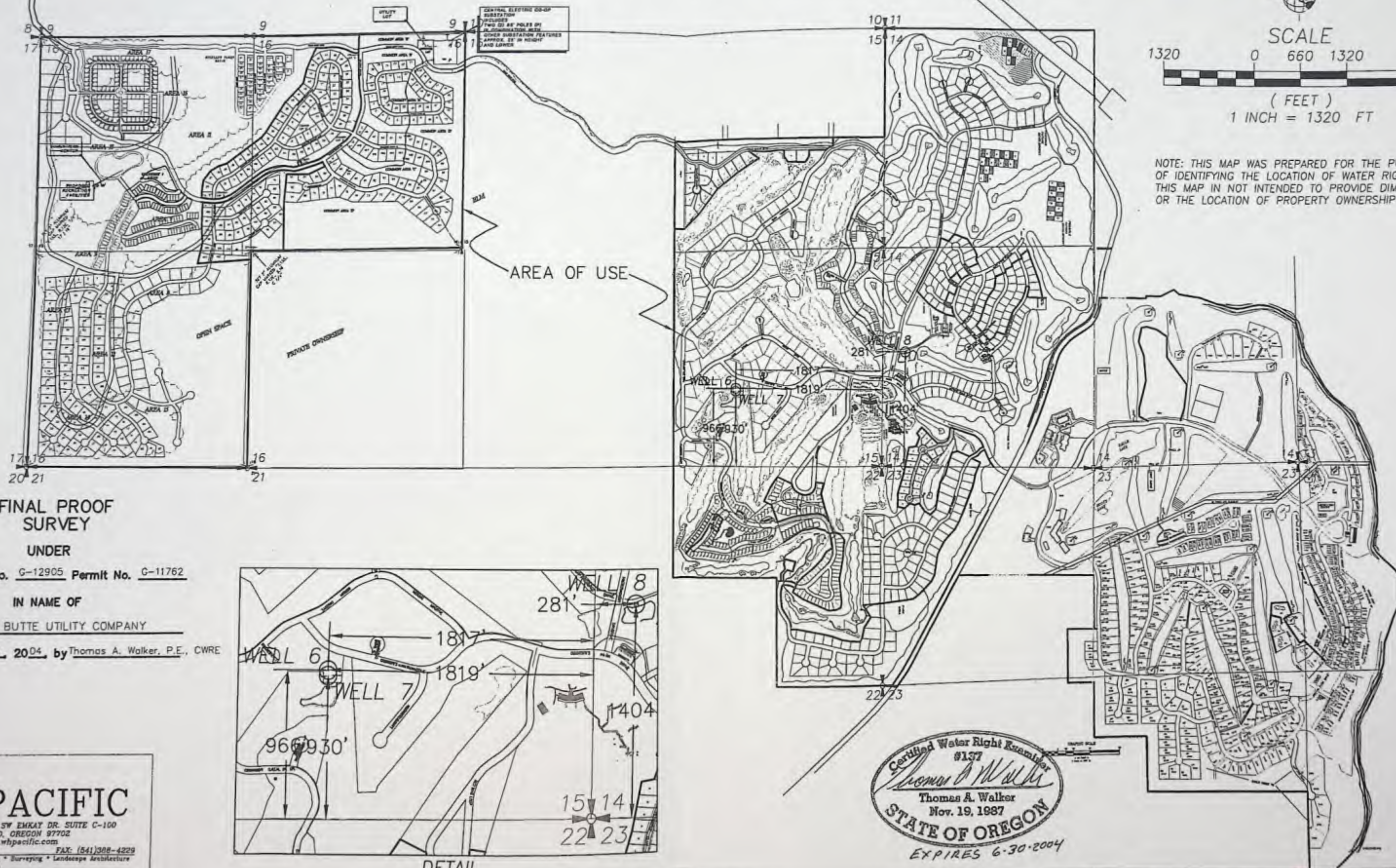


SCALE



( FEET )  
1 INCH = 1320 FT

NOTE: THIS MAP WAS PREPARED FOR THE PURPOSE  
OF IDENTIFYING THE LOCATION OF WATER RIGHTS.  
THIS MAP IS NOT INTENDED TO PROVIDE DIMENSIONS  
OR THE LOCATION OF PROPERTY OWNERSHIP LINES.



FINAL PROOF  
SURVEY

UNDER

Application No. G-12905 Permit No. G-11762

IN NAME OF

CLINE BUTTE UTILITY COMPANY

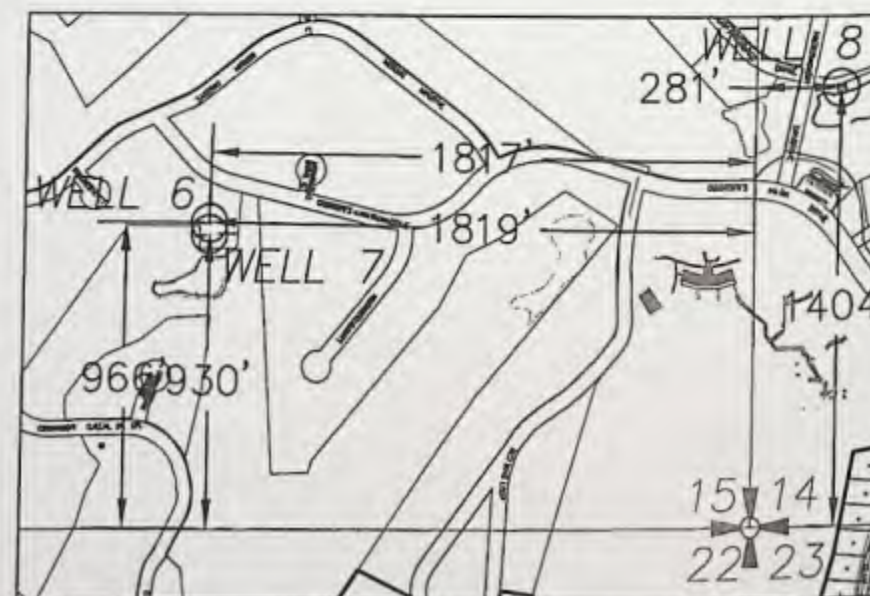
Surveyed JUNE, 2004, by Thomas A. Walker, P.E., CWRE

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05/09/04

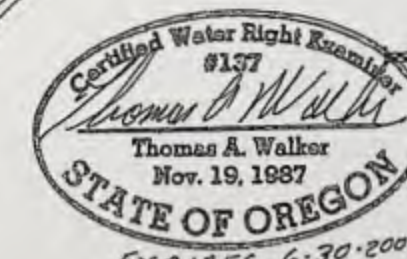
**W&HPACIFIC**

920 SW EMKAY DR. SUITE C-100  
BEND, OREGON 97702  
www.whpacific.com

TEL: (541)388-4255 FAX: (541)388-4229  
Planning • Engineering • Surveying • Landscape Architecture



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walker

STATE OF OREGON  
COUNTY OF DESCHUTES  
PERMIT TO APPROPRIATE THE PUBLIC WATERS

THIS PERMIT IS HEREBY ISSUED TO

EAGLE RIDGE DEVELOPMENT CORPORATION  
P.O. BOX 1215  
REDMOND, OREGON 97756

503-923-0807

to use the waters of THREE WELLS in the DESCHUTES RIVER BASIN for QUASI-MUNICIPAL USE.

This permit is issued approving Application G-12905. The date of priority is MAY 4, 1992. The use is limited to not more than 3.0 CUBIC FEET PER SECOND, or its equivalent in case of rotation, measured at the wells.

The wells are located as follows:

SW 1/4 NW 1/4, SECTION 14, SW 1/4 SE 1/4, SECTION 15, T 15 S, R 12 E, W.M.; WELL 1 - 120 FEET NORTH AND 980 FEET EAST FROM THE W 1/4 CORNER OF SECTION 14, WELL 2 - 962 FEET NORTH AND 823 FEET EAST, WELL 3 - 1009 FEET NORTH AND 802 FEET EAST, BOTH FROM THE S 1/4 CORNER OF SECTION 15.

The use shall conform to such reasonable rotation system as may be ordered by the proper state officer.

A description of the proposed place of use under this permit is as follows:

SW 1/4 SW 1/4  
SECTION 11  
SW 1/4 SW 1/4  
SECTION 13  
W 1/2  
SE 1/4  
SECTION 14  
E 1/2  
SECTION 15  
N 1/2 NE 1/4  
SE 1/4 NE 1/4  
SECTION 22  
N 1/2  
N 1/2 SE 1/4  
SECTION 23  
W 1/2 W 1/2  
SECTION 24  
TOWNSHIP 15 SOUTH, RANGE 12 EAST, W.M.

The well shall be constructed in accordance with the General Standards for the Construction and Maintenance of Water Wells in Oregon. The works shall be equipped with a usable access port, and may also include an air line and pressure gauge adequate to determine water level elevation in the well at all times.

Measurement, recording and reporting conditions:

- A. Before water use may begin under this permit, the permittee shall install a meter or other suitable measuring device as approved by the Director. The permittee shall maintain the meter or measuring device in good working order, shall keep a complete record of the amount of water used each month and shall submit a report which includes the recorded water use measurements to the Department annually or more frequently as may be required by the Director.

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Further, the Director may require the permittee to report general water use information, including the place and nature of use of water under the permit.

- B. The permittee shall allow the watermaster access to the meter or measuring device; provided however, where the meter or measuring device is located within a private structure, the watermaster shall request access upon reasonable notice.

The PERMIT HOLDER shall obtain a static water-level measurement for each well during MARCH of each year and report the measurement to the Department within thirty days. The measurement shall be made by a certified water-rights examiner, registered professional geologist, or professional engineer. Water levels shall be reported as depth-to-water below ground level and shall be accompanied by supporting calculations. If a well listed on this permit displays a total static water-level decline of 10 or more feet over any period of years, when compared to the reference level, then the PERMIT HOLDER shall discontinue use of, or reduce the rate or volume of withdrawal, from the well(s). Such action shall be taken until the water level recovers to above the 10-foot decline level or until the Department determines, based on the PERMIT HOLDER'S or the Department's data and analysis, that no action is necessary because the aquifer in question can sustain the observed declines without adversely impacting the resource or senior water rights. The reference level for water-level declines shall be the first (March 1995) or second annual (March 1996), whichever is higher, measurement taken after water use begins under the terms of this permit. The PERMIT HOLDER shall in no instance allow excessive decline to occur within the aquifer as a result of use under this permit.

In the event of a request for a change in point of appropriation, an additional point of appropriation or alteration of the appropriation facility associated with this authorized diversion, the quantity of water allowed herein, together with any other right, shall not exceed the capacity of the facility at the time of perfection of this right.

This right is limited to any deficiency in the available supply of any prior right existing for the same land.

Prior to receiving a certificate of water right, the permit holder shall submit the results of a pump test meeting the department's standards, to the Water Resources Department. The Director may require water level or pump test results every ten years thereafter.

Actual construction work shall begin on or before May 31, 1995 and shall be completed on or before October 1, 1997. Complete application of water shall be made on or before October 1, 1998.

Failure to comply with any of the provisions of this permit may result in action including, but not limited to, restrictions on the use, civil penalties, or cancellation of the permit.

This permit is for beneficial use of water without waste. The water user is advised that new regulations may require use of best practical technologies or conservation practices to achieve this end.

By law, the land use associated with this water use must be in compliance with statewide land-use goals and any local acknowledged land-use plan.

The use of water shall be limited when it interferes with any prior surface or ground water rights.

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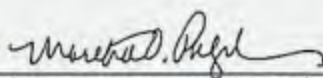
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PAGE THREE

The Water Resources Commission has found that the proposed use of water described by this permit, as conditioned, will not impair or be detrimental to the public interest on April 20, 1994.

Issued this date, May 3/ , 1994.

  
Water Resources Department  
Martha O. Pagel  
Director

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Application G-12905 Water Resources Department  
Basin 5 Volume 1 Deschutes River & Misc.  
MGMT.CODE 4GG

PERMIT G-11762  
District 11



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# Oregon

John A. Kitzhaber, M.D., Governor

April 17, 2001

## Water Resources Department

Commerce Building  
158 12th Street NE  
Salem, OR 97301-4172  
(503) 378-3739  
FAX (503) 378-8130

Cline Butte Utility Co.  
1140 Nutcracker Rd  
Redmond, OR 97756

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APR 23 2001  
W & H PACIFIC, INC.

Reference: File G-12905

The assignment by deed to you of Permit G-11762 has been filed in the records of the Water Resources Department. Our records have been changed accordingly.

Receipt number 43400 covering the \$50 recording fee has been sent to W & H Pacific Inc.

Sincerely,

Dallas S. Miller  
Water Rights Specialist

Enclosure

cc: Watermaster #11  
Data Center/OWRD  
Jerol Andres, President if Eagle Ridge, PO Box 1215, Redmond, OR 97756  
W & H Pacific Inc., 920 SW Emkay, Suite C100, Bend, OR 97702

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STATE OF OREGON  
WATER WELL REPORT  
(as required by ORS 537.765)

INSTRUCTIONS FOR WELL LOG

(START CARD) # 36697

WELL #6

(1) OWNER: Well Number: PH #1  
Name Eagle Ridge Development Corporation  
Address P.O. Box 1215  
City Redmond State OR Zip 97756

(2) TYPE OF WORK:  
☒ New Well ☐ Deepen ☐ Recondition ☐ Abandon

(3) DRILL METHOD  
☒ Rotary Air ☐ Rotary Mud ☐ Cable  
☐ Other

(4) PROPOSED USE:  
☐ Domestic ☐ Community ☐ Industrial ☒ Irrigation  
☐ Thermal ☐ Injection Well ☐ Other

(5) BOREHOLE CONSTRUCTION:  
Special Construction approval Yes ☐ No ☒ Depth of Completed Well 800 ft.  
Explosives used ☐ ☒ Type \_\_\_\_\_ Amount \_\_\_\_\_

| HOLE     |      |     | SEAL     |      |    | Amount          |  |
|----------|------|-----|----------|------|----|-----------------|--|
| Diameter | From | To  | Material | From | To | sacks or pounds |  |
| 17       | 47   | 800 |          | 0    | 47 | 80 sacks        |  |

How was seal placed: Method ☐ A ☐ B ☒ C ☐ D ☐ E  
☐ Other

Backfill placed from \_\_\_\_\_ ft. to \_\_\_\_\_ ft. Material \_\_\_\_\_  
Gravel placed from \_\_\_\_\_ ft. to \_\_\_\_\_ ft. Size of gravel \_\_\_\_\_

| (6) CASING/LINER: |      |     |       | Steel                               | Plastic                  | Welded                              | Threaded                 |
|-------------------|------|-----|-------|-------------------------------------|--------------------------|-------------------------------------|--------------------------|
| Diameter          | From | To  | Gauge |                                     |                          |                                     |                          |
| Casing: 18        | +1   | 47  | .250  | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
|                   |      |     |       | <input type="checkbox"/>            | <input type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> |
|                   |      |     |       | <input type="checkbox"/>            | <input type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> |
|                   |      |     |       | <input type="checkbox"/>            | <input type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> |
| Liner: 14"        | +2   | 800 | .375  | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
|                   |      |     |       | <input type="checkbox"/>            | <input type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> |

Final location of sheets: 800'

(7) PERFORATIONS/SCREENS:  
☒ Perforations Method Factory perforated  
☐ Screens Type \_\_\_\_\_ Material \_\_\_\_\_

| From | To  | Slot size | Number | Diameter | Tele/pipe size | Casing                   | Liner                               |
|------|-----|-----------|--------|----------|----------------|--------------------------|-------------------------------------|
| 510  | 790 | 2X3       | 8000   | 14"      |                | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|      |     |           |        |          |                | <input type="checkbox"/> | <input type="checkbox"/>            |
|      |     |           |        |          |                | <input type="checkbox"/> | <input type="checkbox"/>            |
|      |     |           |        |          |                | <input type="checkbox"/> | <input type="checkbox"/>            |
|      |     |           |        |          |                | <input type="checkbox"/> | <input type="checkbox"/>            |

(8) WELL TESTS: Minimum testing time is 1 hour  
☐ Pump ☐ Bailor ☒ Air ☐ Flowing  
Yield gal/min \_\_\_\_\_ Drawdown \_\_\_\_\_ Drill stem at \_\_\_\_\_ Time \_\_\_\_\_

800 (est.) \_\_\_\_\_ 750 \_\_\_\_\_ 1 hr. \_\_\_\_\_

Temperature of water \_\_\_\_\_ Depth Artesian Flow Found \_\_\_\_\_  
Was a water analysis done? ☐ Yes By whom \_\_\_\_\_

Did any strata contain water not suitable for intended use? ☐ Too little  
☐ Salty ☐ Muddy ☐ Odor ☐ Colored ☐ Other \_\_\_\_\_

Depth of strata \_\_\_\_\_

(9) LOCATION OF WELL by legal description:  
County Deschutes Latitude 42° 12' N Longitude 120° 12' W  
Township 15 S Range 12 E Section 15  
Tax Lot 1500 Lot 1 Block 1 Subdivision \_\_\_\_\_  
Street Address of Well (or nearest address) N/A

(10) STATIC WATER LEVEL:  
ft. below land surface 518 Date 2/20/92  
Artesian pressure \_\_\_\_\_ lb. per square inch. Date \_\_\_\_\_

(11) WATER BEARING ZONES:  
Depth at which water was first found 540

| From | To  | Estimated Flow Rate | SWI |
|------|-----|---------------------|-----|
| 540  | 800 | 800                 | 518 |
|      |     |                     |     |
|      |     |                     |     |

(12) WELL LOG: Ground elevation \_\_\_\_\_

| Material                         | From | To  | SWI |
|----------------------------------|------|-----|-----|
| Sand & cobbles                   | 1    | 4   |     |
| Broken lava red and brown        | 4    | 40  |     |
| Basalt gray hard                 | 40   | 55  |     |
| Lava cinders red                 | 55   | 68  |     |
| Lava brown                       | 68   | 80  |     |
| Basalt gray and brown hard       | 80   | 85  |     |
| Basalt softer                    | 85   | 93  |     |
| Lava red & brown broken soft     | 93   | 111 |     |
| Basalt gray hard                 | 111  | 157 |     |
| Basalt gray softer w/ red cinder | 157  | 162 |     |
| Lava red                         | 162  | 185 |     |
| Lava brown w/sandstone           | 185  | 299 |     |
| Lava dark brown w/pumice         | 299  | 330 |     |
| Andacite brown hard              | 330  | 375 |     |
| Andacite gray                    | 375  | 400 |     |
| Andacite Gray & brown hard       | 400  | 469 |     |
| Andacite gray softer             | 469  | 502 |     |
| Andacite hard brown              | 502  | 524 |     |
| Andacite light brown softer      | 524  | 568 |     |
| Rock black and red               | 568  | 600 |     |
| Andacite brown hard              | 600  | 608 |     |
| Red cinder                       | 608  | 612 |     |
| Andacite brown hard              | 612  | 620 |     |

Date started 1/20/92 Completed 2/20/92

(unbonded) Water Well Constructor Certification:  
I certify that the work I performed on the construction, alteration, abandonment of this well is in compliance with Oregon well construction standards. Materials used and information reported above are true to my best knowledge and belief.  
Signed [Signature] WWC Number 1358 Date 3/4/92

(bonded) Water Well Constructor Certification:  
I accept responsibility for the construction, alteration, or abandonment work performed on this well during the construction dates reported above. Work performed during this time is in compliance with Oregon well construction standards. This report is true to the best of my knowledge and belief.  
Signed [Signature] WWC Number 723 Date 3/4/92



(START CARD) 36697

(9) LOCATION OF WELL by legal description:  
 County Deschutes Township 15 S N or S, Range 12 E E or W, WM.  
 Section 15 SW or SE, NE or NW, SE or NW, SW or NE  
 Tax Lot 1500 Lot \_\_\_\_\_ Block \_\_\_\_\_ Subdivision \_\_\_\_\_  
 Street Address of Well (or nearest address) N/A

(10) **STATIC WATER LEVEL:** \_\_\_\_\_ ft. below land surface. \_\_\_\_\_ Date \_\_\_\_\_  
 Artesian pressure \_\_\_\_\_ lb. per square inch. \_\_\_\_\_ Date \_\_\_\_\_

(11) WATER BEARING ZONES:

| From | To | Estimated Flow Rate | SW |
|------|----|---------------------|----|
|      |    |                     |    |
|      |    |                     |    |
|      |    |                     |    |
|      |    |                     |    |

| Material                         | From | To  | SW |
|----------------------------------|------|-----|----|
| Andacite light gray w/pumice     | 620  | 645 |    |
| Andacite brown fractured         | 645  | 655 |    |
| Andacite brown hard              | 655  | 670 |    |
| Andacite gray w/brown med.       | 670  | 691 |    |
| Andacite gray hard               | 691  | 710 |    |
| Andacite brown w/pumice interbed | 710  | 733 |    |
| Andacite brown & red fractured   | 733  | 740 |    |
| Andacite brown very hard         | 740  | 761 |    |
| Pumice white                     | 761  | 776 |    |
| Andacite grey and brown          | 776  | 800 |    |

[illegible]

Date started 1/30/92 Completed 2/20/92

(unbonded) Water Well Constructor Certification: I certify that the work I performed on the construction, alteration or abandonment of this well is in compliance with Oregon well construction standards. Materials used and information reported above are true to my knowledge and belief.

11/19/92  
Signed: Raymond J. Stude WWC Number: 135  
Date: 3/4/93

(bonded) Water Well Constructor Certification: I accept responsibility for the construction, alteration, or abandonment of work performed on this well during the construction dates reported above. The work performed during this time is in compliance with Oregon construction standards. This report is true to the best of my knowledge and belief.

Signed [Signature] WWC Number 72  
Date 3/4/92

COPY - CONSTRUCTOR      THIRD COPY - CUSTOMER      98090

[illegible]

8) WELL TESTS: Minimum testing time is 1 hour

☐ Pump      ☐ Bailer      ☐ Air      ☐ Flowing

Yield gal/min      Drawdown      Drill stem at      Time

|  |  |  | 1 hr. |
|--|--|--|-------|
|  |  |  |       |
|  |  |  |       |
|  |  |  |       |

Temperature of water: 11.1 Depth: Artesian Flow Found: 21 June 1967  
 as a water analysis done? ☐ Yes By whom: unavailable  
 Did any strata contain water not suitable for intended use? ☐ Too little  
 Salty ☐ Muddy ☐ Odor ☐ Colored ☐ Other \_\_\_\_\_  
 Depth of strata: \_\_\_\_\_



STATE OF OREGON  
WATER WELL REPORT  
(as required by ORS 537.765)

Page 1 of 2

(START CARD) # 04267

EE II P-107 Well  
Well # 7

(1) OWNER: Well Number \_\_\_\_\_  
Name Eagle Ridge Development  
Address P.O. Box 1215  
City Redmond State OR Zip 97756

(2) TYPE OF WORK:  
☒ New Well ☐ Deepen ☐ Recondition ☐ Abandon

(3) DRILL METHOD:  
☒ Rotary Air ☐ Rotary Mud ☐ Cable  
☐ Other \_\_\_\_\_

(4) PROPOSED USE:  
☐ Domestic ☐ Community ☐ Industrial ☒ Irrigation  
☐ Thermal ☐ Injection ☐ Other \_\_\_\_\_

(5) BORE HOLE CONSTRUCTION:  
Special Construction approval ☐ Yes ☒ No Depth of Completed Well \_\_\_\_\_ ft.  
Explosives used ☐ Yes ☒ No Type \_\_\_\_\_ Amount \_\_\_\_\_

| HOLE     |      |     | SEAL      |      |     | Amount<br>sacks or pounds |
|----------|------|-----|-----------|------|-----|---------------------------|
| Diameter | From | To  | Material  | From | To  |                           |
| 15       | 0    | 50  | Lentonite | 0    | 18  | 15                        |
| 10       | 50   | 100 | Cement    | 18   | 100 | 60                        |
| 5        | 100  | 600 |           |      |     |                           |

How was seal placed: Method ☐ A ☐ B ☒ C ☐ D ☐ E  
☒ Other Lentonite dry in top 18'

Backfill placed from \_\_\_\_\_ ft. to \_\_\_\_\_ ft. Material \_\_\_\_\_  
Gravel placed from \_\_\_\_\_ ft. to \_\_\_\_\_ ft. Size of gravel \_\_\_\_\_

(6) CASING/LINER:

| Diameter   | From | To  | Gauge | Steel                               | Plastic                  | Welded                              | Threaded                 |
|------------|------|-----|-------|-------------------------------------|--------------------------|-------------------------------------|--------------------------|
| Casing: 12 | 0    | 50  |       | <input type="checkbox"/>            | <input type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> |
|            | 50   | 98  | .254  | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
|            |      |     |       | <input type="checkbox"/>            | <input type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> |
|            |      |     |       | <input type="checkbox"/>            | <input type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> |
| Liner: 6   | 0    | 600 |       | <input type="checkbox"/>            | <input type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> |
|            |      |     |       | <input type="checkbox"/>            | <input type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> |

Final location of shoe(s) 600

(7) PERFORATIONS/SCREENS:  
☐ Perforations Method Air  
☐ Screens Type \_\_\_\_\_ Material \_\_\_\_\_

| From | To  | Slot size | Number | Diameter | Tele/pipe size | Casing                   | Liner                               |
|------|-----|-----------|--------|----------|----------------|--------------------------|-------------------------------------|
| 600  | 620 | 1x1/4     | 400    | 6        |                | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 700  | 800 | 1x1/4     | 3000   | 6        |                | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|      |     |           |        |          |                | <input type="checkbox"/> | <input type="checkbox"/>            |
|      |     |           |        |          |                | <input type="checkbox"/> | <input type="checkbox"/>            |

(8) WELL TESTS: Minimum testing time is 1 hour  
☐ Pump ☐ Bailor ☒ Air ☐ Flowing Artesian  
Yield gal/min \_\_\_\_\_ Drawdown \_\_\_\_\_ Drill stem at \_\_\_\_\_ Time \_\_\_\_\_  
\_\_\_\_\_ 300 1 hr.

Temperature of Water 56 Depth Artesian \_\_\_\_\_  
Was a water analysis done? ☐ Yes By whom \_\_\_\_\_  
Did any strata contain water not suitable for intended use? ☐ Yes ☐ No  
☐ Salty ☐ Muddy ☐ Odor ☐ Colored ☐ Other \_\_\_\_\_  
Depth of strata: \_\_\_\_\_

(9) LOCATION OF WELL by legal description:  
County \_\_\_\_\_ Latitude \_\_\_\_\_ Longitude \_\_\_\_\_  
Township 15 S N or S. Range 12 E E or W. WM.  
Section 22 36 14 36  
Tax Lot \_\_\_\_\_ Lot \_\_\_\_\_ Block \_\_\_\_\_ Subdivision \_\_\_\_\_  
Street Address of Well (or nearest address) Cline Falls Hwy

(10) STATIC WATER LEVEL:  
523 ft. below land surface. Date 10-11-91  
Artesian pressure \_\_\_\_\_ lb. per square inch. Date \_\_\_\_\_

(11) WATER BEARING ZONES:  
Depth at which water was first found 600

| From | To  | Estimated Flow Rate | SWL |
|------|-----|---------------------|-----|
| 606  | 615 |                     |     |
| 720  | 735 |                     |     |
|      |     |                     |     |

(12) WELL LOG:  
Ground elevation \_\_\_\_\_

| Material                     | From | To  | SWL |
|------------------------------|------|-----|-----|
| Dirt                         | 0    | 2   |     |
| Broken rock                  | 2    | 12  |     |
| Sand black coarse dry        | 12   | 25  |     |
| Broken rock red & gray       | 25   | 30  |     |
| Rock harder                  | 36   | 42  |     |
| Sandstone soft brown         | 42   | 48  |     |
| Lava porous gray & brown     | 48   | 55  |     |
| Broken lava red & gray       | 55   | 63  |     |
| Lava harder red & gray       | 63   | 132 |     |
| Basalt gray hard             | 132  | 160 |     |
| Lava red medium              | 160  | 165 |     |
| Lava red with white matrix   | 165  | 203 |     |
| Multi-colored lava brown red | 203  |     |     |
| gray                         |      | 310 |     |
| broken lava red brown        | 310  | 375 |     |
| Rock medium brown            | 375  | 392 |     |
| Rock gray with some matrix   | 392  | 400 |     |
| Rock gray and white          | 400  | 435 |     |
| Rock brown gray white        | 435  | 442 |     |
| Basalt gray hard             | 442  | 461 |     |
| SHALLOW LOG                  |      |     |     |
| UNBONDED                     |      |     |     |

Date started 9-18-91 Completed 10-11-91

(unbonded) Water Well Constructor Certification:  
I certify that the work I performed on the construction, alteration, or abandonment of this well is in compliance with Oregon well construction standards. Materials used and information reported above are true to my best knowledge and belief.

Signed [Signature] WWC Number \_\_\_\_\_  
Date \_\_\_\_\_

(bonded) Water Well Constructor Certification:  
I accept responsibility for the construction, alteration, or abandonment work performed on this well during the construction dates reported above. All work performed during this time is in compliance with Oregon well construction standards. This report is true to the best of my knowledge and belief.

Signed [Signature] WWC Number \_\_\_\_\_  
Date \_\_\_\_\_

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WATER RESOURCES DEPT







51480 MAY 19 1998

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T.D.# L22893

STATE OF OREGON WATER RESOURCES DEPT.  
WATER WELL REPORT SALEM, OREGON  
(as required by ORS 537.705)

JUL - 7 1998

(START CARD) # 89252

(1) OWNER:  
Name Eagle Crest

Well Number: 8

LOCATION OF WELL by legal description:

Address po box 1215  
City Redmond State OR Zip 97756

County Deschutes Latitude \_\_\_\_\_ Longitude \_\_\_\_\_

Township 15S Nor S. Range 12E E or W.

Section 14 NW 1/4 SW 1/4

Tax Lot 1542-1546 Lot \_\_\_\_\_ Block \_\_\_\_\_ Subdivision \_\_\_\_\_

Street Address of Well (or nearest address) \_\_\_\_\_

cline falls hwy

(2) TYPE OF WORK:

☒ New Well ☐ Deepen ☐ Recondition ☐ Abandon

(3) DRILL METHOD

☒ Rotary Air ☐ Rotary Mud ☐ Cable

☐ Other \_\_\_\_\_

(4) PROPOSED USE:

☐ Domestic ☒ Community ☐ Industrial ☐ Irrigation

☐ Thermal ☐ Injection ☐ Other \_\_\_\_\_

(5) BORE HOLE CONSTRUCTION:

Special Construction approval Yes ☐ No ☒ Depth of Completed Well 600 ft.

Explosives used ☐ ☒ Type \_\_\_\_\_ Amount \_\_\_\_\_

| HOLE     |      |     | SEAL     |      |    | Amount<br>sacks or pounds |
|----------|------|-----|----------|------|----|---------------------------|
| Diameter | From | To  | Material | From | To |                           |
| 23"      | 0    | 60  | cement   | 0    | 24 | 44                        |
| 19"      | 60   | 65  | bent     | 24   | 40 | 48                        |
| 17"      | 65   | 600 | cement   | 40   | 60 | 282                       |

How was seal placed: Method ☐ A ☐ B ☒ C ☐ D ☐ E

☐ Other chips poured

Backfill placed from \_\_\_\_\_ ft. to \_\_\_\_\_ ft. Material \_\_\_\_\_

Gravel placed from \_\_\_\_\_ ft. to \_\_\_\_\_ ft. Size of gravel \_\_\_\_\_

(6) CASING/LINER:

|         | Diameter | From | To  | Gauge | Steel                               | Plastic                  | Welded                              | Threaded                 |
|---------|----------|------|-----|-------|-------------------------------------|--------------------------|-------------------------------------|--------------------------|
| Casing: | 18       | +15  | 60  | .375  | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
|         |          |      |     |       | <input type="checkbox"/>            | <input type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> |
|         |          |      |     |       | <input type="checkbox"/>            | <input type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> |
|         |          |      |     |       | <input type="checkbox"/>            | <input type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> |
| Liner:  | 14       | -5   | 600 | .375  | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
|         |          |      |     |       | <input type="checkbox"/>            | <input type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> |

Final location of shoe(s): \_\_\_\_\_

(7) PERFORATIONS/SCREENS:

☒ Perforations Method factory - swift

☐ Screens Type \_\_\_\_\_ Material \_\_\_\_\_

| From | To  | Slot<br>size | Number | Diameter | Tele/pipe<br>size | Casing                   | Liner                               |
|------|-----|--------------|--------|----------|-------------------|--------------------------|-------------------------------------|
| 390  | 600 | 1/8x3        | 8000   | 14"      |                   | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|      |     |              |        |          |                   | <input type="checkbox"/> | <input type="checkbox"/>            |
|      |     |              |        |          |                   | <input type="checkbox"/> | <input type="checkbox"/>            |
|      |     |              |        |          |                   | <input type="checkbox"/> | <input type="checkbox"/>            |
|      |     |              |        |          |                   | <input type="checkbox"/> | <input type="checkbox"/>            |

(8) WELL TESTS: Minimum testing time is 1 hour

☐ Pump ☐ Boiler ☒ Air ☐ Flowing ☐ Artesian

Yield/GPM \_\_\_\_\_ Drawdown \_\_\_\_\_ Discharge \_\_\_\_\_

(10) STATIC WATER LEVEL:

312 ft. below land surface. Date 4-22

Artesian pressure \_\_\_\_\_ lb. per square inch. Date \_\_\_\_\_

(11) WATER BEARING ZONES:

Depth at which water was first found 350'

| From | To  | Estimated Flow Rate |
|------|-----|---------------------|
| 350  | 600 |                     |
|      |     |                     |
|      |     |                     |

(12) WELL LOG:

Ground elevation \_\_\_\_\_

| Material                     | From | To  |
|------------------------------|------|-----|
| soil                         | 0    | 5   |
| basalt grey fractured        | 5    | 8   |
| withd rock soft grey         | 8    | 13  |
| grey harder                  | 13   | 32  |
| lava red hard                | 32   | 38  |
| lava red hard                | 38   | 40  |
| basalt grey very hard        | 40   | 100 |
| basalt grey & brown hard     | 127  | 141 |
| lava grey & red med          | 127  | 141 |
| lava brn hard                | 141  | 155 |
| basalt fractures bent red    | 155  | 174 |
| andacite basalt grey hard    | 174  | 177 |
| cinders red tan grey         | 177  |     |
| with pumice                  |      | 210 |
| red cinder with grey liner   | 210  |     |
| white pumice                 |      | 220 |
| brown sandstone              | 220  | 260 |
| brown sandstone              | 260  | 280 |
| conglomerate brown & black   | 280  | 290 |
| conglomerate brown bounded   | 280  | 290 |
| conglomerate monocrystalline | 480  | 551 |
| ansacite white hard          | 551  | 560 |
| plumice white                | 560  | 567 |

Date started 3-19-98 Completed 4-22-98

(unbonded) Water Well Constructor Certification:

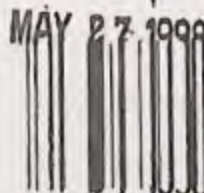
I certify that the work I performed on the construction, alteration, abandonment of this well is in compliance with Oregon well construction standards. Materials used and information reported above are true to the best of my knowledge.

STATE OF OREGON



WATER WELL REPORT

5160 5160



MAY 27 1998

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JUL 25 2008

WATER RESOURCES DEPT  
SALEM, OREGON

T.D.# L22893



# WATER WELL REPORT

(as required by ORS 537.765)

5168

pg 2 of 2

11 11 11

WATER RESOURCES DEPT

(START CARD) # 89252

## (1) OWNER:

Name **Eagle Crest**

Address **PO Box 1215**

City **Redmond**

State **OR**

Zip **97756**

Well Number: **8**

## SALEM, OREGON OF WELL by legal description:

County **Detonne** Latitude \_\_\_\_\_ Longitude \_\_\_\_\_

Township **15S** N or S. Range **12E** E or W.

Section **14** NW 1/4 SW 1/4

Tax Lot **15-18-15A** Block \_\_\_\_\_ Subdivision \_\_\_\_\_

Street Address of Well (or nearest address) \_\_\_\_\_

**Cline sales buy**

## (2) TYPE OF WORK:

☐ New Well ☐ Deepen ☐ Recundition ☐ Abandon

## (3) DRILL METHOD

☐ Rotary Air ☐ Rotary Mud ☐ Cable

☐ Other \_\_\_\_\_

## (4) PROPOSED USE:

☐ Domestic ☐ Community ☐ Industrial ☐ Irrigation

☐ Thermal ☐ Injection ☐ Other \_\_\_\_\_

## (5) BORE HOLE CONSTRUCTION:

Special Construction approval Yes ☐ No ☐ Depth of Completed Well \_\_\_\_\_ ft.

Explosives used ☐ Yes ☐ No ☐ Type \_\_\_\_\_ Amount \_\_\_\_\_

HOLE Diameter From \_\_\_\_\_ To \_\_\_\_\_ Material \_\_\_\_\_ SEAL From \_\_\_\_\_ To \_\_\_\_\_ Amount \_\_\_\_\_ sacks or pounds

How was seal placed: Method ☐ A ☐ B ☐ C ☐ D ☐ E

☐ Other \_\_\_\_\_

Backfill placed from \_\_\_\_\_ ft. to \_\_\_\_\_ ft. Material \_\_\_\_\_

Gravel placed from \_\_\_\_\_ ft. to \_\_\_\_\_ ft. Size of gravel \_\_\_\_\_

## (6) CASING/LINER:

|         | Diameter | From | To | Gauge | Steel                    | Plastic                  | Welded                   | Threaded                 |
|---------|----------|------|----|-------|--------------------------|--------------------------|--------------------------|--------------------------|
| Casing: |          |      |    |       | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
|         |          |      |    |       | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
|         |          |      |    |       | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
|         |          |      |    |       | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Liner:  |          |      |    |       | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
|         |          |      |    |       | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

Final location of sheet \_\_\_\_\_

## (7) PERFORATIONS/SCREENS:

☐ Perforations

Method \_\_\_\_\_

☐ Screens

Type \_\_\_\_\_

Material \_\_\_\_\_

| From | To | Slot size | Number | Diameter | Tele/pipe size | Casing                   | Liner                    |
|------|----|-----------|--------|----------|----------------|--------------------------|--------------------------|
|      |    |           |        |          |                | <input type="checkbox"/> | <input type="checkbox"/> |
|      |    |           |        |          |                | <input type="checkbox"/> | <input type="checkbox"/> |
|      |    |           |        |          |                | <input type="checkbox"/> | <input type="checkbox"/> |
|      |    |           |        |          |                | <input type="checkbox"/> | <input type="checkbox"/> |
|      |    |           |        |          |                | <input type="checkbox"/> | <input type="checkbox"/> |
|      |    |           |        |          |                | <input type="checkbox"/> | <input type="checkbox"/> |

## (8) WELL TESTS: Minimum testing time is 1 hour

☐ Pump

☐ Baller

☐ Air

☐ Flowing ☐ Artesian

Yield gal/min

Drawdown

Drill stem at

Time

|  |  |  |       |
|--|--|--|-------|
|  |  |  | 1 hr. |
|  |  |  |       |
|  |  |  |       |

Temperature of water \_\_\_\_\_

Depth Artesian Flow Found \_\_\_\_\_

Was a water analysis done? ☐ Yes By whom \_\_\_\_\_

Did any strata contain water not suitable for intended use? ☐ Too little

☐ Salty ☐ Muddy ☐ Odor ☐ Colored ☐ Other \_\_\_\_\_

## (10) STATIC WATER LEVEL:

\_\_\_\_\_ ft. below land surface. Date \_\_\_\_\_

Artesian pressure \_\_\_\_\_ lb. per square inch. Date \_\_\_\_\_

## (11) WATER BEARING ZONES:

Depth at which water was first found \_\_\_\_\_

| From | To | Estimated Flow Rate |
|------|----|---------------------|
|      |    |                     |
|      |    |                     |
|      |    |                     |

## (12) WELL LOG:

Ground elevation \_\_\_\_\_

| Material                   | From | To  |
|----------------------------|------|-----|
| basalt grey and brown hard | 567  | 580 |
| basalt soft                | 580  | 590 |
| basalt hard                | 590  | 600 |

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JUL 25 2008

WATER RESOURCES DEPT  
SALEM, OREGON

Date started \_\_\_\_\_ Completed \_\_\_\_\_

## (unbonded) Water Well Constructor Certification:

I certify that the work I performed on the construction, alter, abandonment of this well is in compliance with Oregon well cone standards. Materials used and information reported above are true to knowledge and belief.

WWC Number \_\_\_\_\_

Signed \_\_\_\_\_ Date \_\_\_\_\_

## (bonded) Water Well Constructor Certification:

I accept responsibility for the construction, alteration, or abandonment work performed on this well during the construction dates reported a work performed during this time is in compliance with Oreg construction standards. This report is true to the best of my knowh belief.

WWC Number **1**



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**JUL 25 2008**

**WATER RESOURCES DEPT  
SALEM, OREGON**



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OCT 22 1991

W & H PACIFIC INC.

Oregon

WATER  
RESOURCES  
DEPARTMENT

October 18, 1991

Eagle Ridge Development Corporation  
P.O. Box 1215  
Redmond, OR 97756

Reference: File G-12429, Permit G-11313

The Department has reviewed your request to change the location of the wells as authorized under your permit G-11313.

Staff has concluded that your proposal to place the wells no closer than 2000 feet from the Deschutes River is acceptable and will be allowed under your permit.

If you have any questions, please contact me.

Sincerely,

Stephen C. Brown  
Senior Water Rights Specialist  
Field Operations Division

cc: Mr. Tom Walker, PE, CWRE  
Mr. Donn Miller, WRD  
Mr. Bob Main, Region Manager

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JUL 25 2008

WATER RESOURCES DEPT  
SALEM, OREGON



3850 Portland Rd NE  
Salem, OR 97310  
(503) 378-3739  
FAX (503) 378-8130



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**JUL 25 2008**

**WATER RESOURCES DEPT  
SALEM, OREGON**





April 28, 1992

OWRD FILE # G-12905

Mr. Steve Brown  
Oregon Water Resources Department  
3850 Portland Road, N.E.  
Salem, Oregon 97310

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JUL 25 2008

WATER RESOURCES DEPT  
SALEM, OREGON

Re: Eagle Ridge Development Corporation  
Water Right Appropriation Application  
526-0101

Dear Steve:

I have enclosed a groundwater appropriation application, four copies of an application map, and a land use compatibility statement for a proposed expansion of water rights. In addition, I have enclosed an application fee in the amount of \$450.00. The application fee was calculated as noted below:

|                                                        |                  |
|--------------------------------------------------------|------------------|
| Examination Fee                                        | \$ 200.00        |
| Initial One CFS Quasi-Municipal Use                    | \$ 100.00        |
| Each Additional CFS Quasi-Municipal Use @ \$50.00/each | \$ 150.00        |
| <b>Total</b>                                           | <b>\$ 450.00</b> |

On August 12, 1991, Eagle Ridge Development Corporation was granted permit number G-11313 to appropriate groundwater for golf course irrigation and associated golf course commercial activities. Subsequently, two wells have been constructed and land use approvals have been obtained for residential development. A copy of our irrigation permit and well logs are enclosed for your review and use. A hydrogeologic study including pump test results for two wells is also enclosed.

At this time, Eagle Ridge Development Corporation is completing construction of the initial 18-hole golf course. Based upon pump test results from the initial production well, an adequate water supply will be available for irrigation and initial residential development. When the second 18-hole golf course is constructed, we expect to drill an additional well to provide the necessary irrigation and domestic supplies.

Well locations shown on the attached application map are intended to coincide with permit number G-11313, and the subsequent OWRD correspondence dated October 18, 1991. No wells in addition to these on permit G-11313 are proposed.

We have designated a quasi-municipal use on the enclosed application and intend water to be utilized for domestic, commercial, landscape irrigation, fire protection, construction watering, lake maintenance, swimming pools, and similar resort related purposes.





Mr. Steve Brown

April 28, 1992

Page 2

In addition, we expect to construct a pipeline between the Eagle Ridge well and the existing Eagle Crest Resort to allow a reliable back-up supply for both projects. Typically, the back-up supply will only be utilized periodically, but provides a significant reliability factor for all residents. For this reason, I have included the Eagle Crest Resort project, and other adjacent lands, that are expected to be within the domestic water system service district.

The existing and proposed Eagle Ridge wells will be utilized for both irrigation and domestic purposes, through appropriate valving and piping networks. Approved backflow prevention assemblies will be provided at all connection points to irrigation systems. All use of domestic water will be regulated by the Oregon Health Division and the Public Utility Commission.

Please consider the enclosed documents and contact me with any questions or needs for additional information. Your assistance is sincerely appreciated and your advice solicited.

Very truly yours,  
W&H Pacific

A handwritten signature in dark ink, appearing to read 'Tom Walker', written in a cursive style.

Thomas A. Walker, P.E., C.W.R.E.  
Senior Associate

cc: Bill Lyche

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**WATER RESOURCES DEPT  
SALEM, OREGON**





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W & H PACIFIC INC.

Oregon

WATER  
RESOURCES  
DEPARTMENT

October 18, 1991

Eagle Ridge Development Corporation  
P.O. Box 1215  
Redmond, OR 97756

Reference: File G-12429, Permit G-11313

The Department has reviewed your request to change the location of the wells as authorized under your permit G-11313.

Staff has concluded that your proposal to place the wells no closer than 2000 feet from the Deschutes River is acceptable and will be allowed under your permit.

If you have any questions, please contact me.

Sincerely,

Stephen C. Brown  
Senior Water Rights Specialist  
Field Operations Division

cc: Mr. Tom Walker, PE, CWRE  
Mr. Donn Miller, WRD  
Mr. Bob Main, Region Manager

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3850 Portland Rd NE  
Salem, OR 97310  
(503) 378-3739  
FAX (503) 378-8130



Application No. \_\_\_\_\_

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State of Oregon  
WATER RESOURCES DEPARTMENT

WATER RESOURCES DEPT  
SALEM, OREGON

## Application for a Permit to Appropriate Ground Water

Applicant(s) Eagle Ridge Development Corporation  
(Please print or type - use dark ink)

Mailing Address: P.O. Box 1215  
Redmond, Oregon 97756 (503) 923-0807  
City State Zip Daytime Phone No.

I (We) make application for a permit to appropriate the following described ground waters of the State of Oregon:

1. **THE DEVELOPMENT** (number of wells, tile lines, infiltration galleries, etc.): The development is expected to include the expansion of use for two existing wells and one proposed well.

If development is less than one mile from a natural stream, give the following:

Distance from development to stream: 2,000 feet minimum

Elevation difference between streambed and development: + 300 feet

NOTE: Wells must be constructed according to standards set by the department for the construction and maintenance of water wells. If the well is already constructed, please enclose a copy of the well driller's log with this application, and skip to Section 2 below.

Existing Well #2 and Proposed Well #3: 17"  
Diameter of well: Existing Well #1: 8" Depth in feet: 800 feet

Type and size of well casing: 14" casing/6" casing No. of feet: 800 feet

Estimated depth to water: 520 feet

Type of access port or measuring device: Air tube and standard casing vent.

Wells to be drilled by: Staco Well Services, Inc.

Address: 220 Academy Street Mt. Angel, Oregon 97362

If the water well is flowing artesian, describe your water control and conservation works: Based upon completion of wells on this property and review of well logs in the vicinity, artesian flow is not expected.

2. **TOTAL AMOUNT OF WATER** to be applied to beneficial use: 4.01 cubic feet per second, OR 1,800 gallons per minute. If water is to be used from more than one ground water source, give the quantity of water from each: Existing well number one: .45 cfs, Existing well number two: 1.78 cfs, and proposed well number three: 1.78 cfs.



3. **INTENDED USE(s) OF WATER:** Quasi-Municipal

If for more than one use, give the quantity of water from each source for each use; \_\_\_\_\_

If for **DOMESTIC** use, state the number of households to be supplied; \_\_\_\_\_

If for **MUNICIPAL OR QUASI-MUNICIPAL** use, state the present population to be served, and an estimate of the future requirements; (List population projections, water needs, anticipated areas to be provided water.) The proposed domestic water supply system will serve an estimated 900 dwelling units in the proposed expansion of the Eagle Crest Resort and 42 dwellings in the existing Cline Falls Oasis subdivision, provide a reliable backup supply for the + 420 dwelling units at the existing Eagle Crest Resort, and serve recreation, commercial landscape irrigation, fire protection, and construction uses.

If for **MINING** use, state the nature (gold, silver, etc.) of the mines to be served; \_\_\_\_\_

If for **IRRIGATION**, or other land area use, state the **TOTAL** number of acres to be developed under each use;

Irrigation \_\_\_\_\_

Other (describe) \_\_\_\_\_

4. **DESCRIPTION OF WATER DELIVERY SYSTEM:** Include dimensions and type of construction of diversion works, length and dimensions of supply ditches or pipelines, size and type of pump and motor. If for irrigation, describe the type of system (i.e., flood, wheel line, hand line, drip, other).

The system is ultimately expected to include two 250 HP line shaft turbine well pumps, one 50 HP submersible well pump, a + 300,000 gallon storage reservoir, approximately 50,000 lineal feet of 6", 8", 10", and 12" distribution main, and the associated valves, hydrants, and appurtenances.

5. **PROJECT SCHEDULE:** (List month and year)

Proposed date construction work will begin April, 1992

Proposed date construction work will be completed October, 1997

Proposed date water use will be completed October, 2002

NOTE: A map prepared by a Certified Water Right Examiner (CWRE) and a complete legal description of the subject property are required under ORS 537.140 and OAR 690 as a part of your application. The legal description may be copied from your deed, title insurance policy, or land sales contract.

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6. a) In the event any deficiencies are noted involving the application map enclosed herein, please return the map with instructions for correction to (check one):

       Applicant        X   CWRE             Other (Identify in REMARKS section)

- b) In the event any deficiencies are noted involving the application, please return the application with instructions for correction to (check one):

       Applicant        X   CWRE             Other (Identify in REMARKS section)

7. Are all lands involved (including the proposed diversion site, place of use, and access for conveying the water) under your ownership?   NO  . If not, list in the REMARKS section below, or on an attached sheet, the names and mailing addresses of the legal owners of all property involved in the proposed development.

NOTE: Prior to receiving a certificate of water right, the permit holder must submit to the Water Resources Department the results of a pump test meeting the department's standards. The Director will require water level or pump test results every ten years thereafter.

REMARKS: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Please reference the attached application map for a listing of all land owners and their mailing address.

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

NOTE: The permit, when issued, is for the beneficial use of water without waste. By law, the land use associated with this water use must be in compliance with statewide land-use goals and any local acknowledged land-use plan. It is possible the land use you propose may not be allowed if it is not in keeping with the goals and acknowledged plan. Your city or county planning agency can advise you about the land-use plan in your area.

William D. Lyche  
Signature of Applicant

April 28, 1992  
Date

\_\_\_\_\_  
Signature of Co-Applicant, if any

\_\_\_\_\_  
Date

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EAGLE CREST PARTNERS LTD. & AFFILIATES REDMOND, OREGON 97756

0031486

| DATE       | INVOICE NO. | DESCRIPTION  | INVOICE AMOUNT | DEDUCTION | BALANCE |
|------------|-------------|--------------|----------------|-----------|---------|
| 4-30-92    | 430         | CIP E/R LOTS | 450.00         | .00       | 450.00  |
| CHECK DATE | 4-30-92     | CHECK NUMBER | 31486          | TOTALS    |         |
|            |             |              | 450.00         | .00       | 450.00  |

PLEASE DETACH AND RETAIN THIS PORTION FOR YOUR RECORDS.



EAGLE CREST PARTNERS LTD. & AFFILIATES  
P.O. BOX 1215 • 923-2453  
REDMOND, OREGON 97756

First Interstate Bank of Oregon, N.A.  
Bend Branch P.O. Box 1191  
Bend, OR 97709  
24-12  
1230

0031486

Pay: Four hundred fifty dollars and no cents

DATE

April 30, 1992

CHECK NO.

31486 \$\*\*\*\*\*450.00\*\*

AMOUNT

PAY  
TO THE  
ORDER  
OF

OREGON WATER RESOURCES  
DIVISION

*Carol E. Andrus*  
*Kawri Miller*

AUTHORIZED SIGNATURE

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NOTICE OF BEGINNING OF CONSTRUCTION

I, Eagle Ridge Development Corporation, the holder of Permit No. G-11313  
do appropriate the public waters of the state of Oregon, began the actual construction of the works described  
therein on the 17th day of September, 1991

Remarks: TWO PILOT WELLS AND ONE PRODUCTION WELL HAVE BEEN CONSTRUCTED AND  
AND TESTED. THE PRODUCTION WELL CONSTRUCTION INCLUDES 800 FEET OF 14 INCH  
CASING IN A 17 INCH HOLE.  
The appropriator must state the manner of beginning of construction, the amount of work completed and the type of equipment  
required for the water system up to the date of this statement, and any additional information which shows a substantial beginning of construction as  
authorized by your permit.

IN WITNESS WHEREOF, I have hereunto set my hand this 20 day of March, 1992  
William D. Sykes P.O. BOX 1215 REDMOND, OR 97756  
(Signature of Applicant) (Address)

Fill out, detach and mail to the Water Resources Department, Salem, OR 97310, when construction work is begun.

SP\*35567-690

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SALEM, OREGON





920 SW Emkay, Suite C100  
Bend, Oregon 97702-1041  
541.388.4255  
Fax 541.388.4229

April 14, 2004

Oregon Water Resources Department  
Measurement and Reporting Section  
725 Summer Street, NE, Suite A  
Salem, OR 97301-1271

RE: Eagle Crest Resort  
Groundwater Wells  
Static Water Level Reporting  
WHP File # 30036  
OWRD Application No. G-12905  
OWRD Permit No. G-11762

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SALEM, OREGON**

Gentlemen/Ladies:

Ground Water Permit G-11762 stipulates recording of static water levels on an annual basis. I have compiled static water level readings for all Eagle Crest Resort wells for your review and use.

As in past years, we have provided static water level measurements for multiple wells at Eagle Crest. Water level readings have been obtained from existing air lines and pressure gauges. In addition, we have checked the measurements in some wells with a second air gauge reading. In all cases, the static water level measurements were taken from the top of the existing well casing. Static water level measurements in all wells are similar to conditions reported in past years. Static water level measurements were obtained in March 2004.

The following table summarizes our static water level measurements and information on each well.

**EAGLE CREST WELLS  
WATER LEVEL REPORTING**

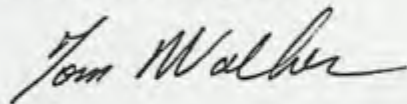
| Owner's Well Designation | Original Owner         | Well Log Startcard # | Well Depth | Date Drilled | Casing Size | Driller                | Permit #/ Application # | Static Water Level | Idle Period |
|--------------------------|------------------------|----------------------|------------|--------------|-------------|------------------------|-------------------------|--------------------|-------------|
| ECI Well #2              | Neil Chase             | —                    | 330'       | 8/20/79      | 10"         | Lewis & Clark Drilling | G-10530<br>G-11387      | 243'               | 72 hrs      |
| ECI Well #3              | Eagle Crest Resort     | 5310/8050            | 290'       | 8/18/89      | 12"         | Crawford Well Drilling | G-10530<br>G-11387      | 246'               | 96 hrs      |
| ECII Well #6             | Eagle Ridge Dev. Corp. | 36697                | 800'       | 2/20/92      | 14"         | STACO                  | G-11762<br>G-12905      | 523'               | 72 hrs      |



|                   |                                 |        |      |          |     |       |                    |      |                   |
|-------------------|---------------------------------|--------|------|----------|-----|-------|--------------------|------|-------------------|
| ECII<br>Well #7   | Eagle<br>Ridge<br>Dev.<br>Corp. | 34267  | 800' | 10/11/91 | 6"  | STACO | G-11762<br>G-12905 | 523' | Several<br>Months |
| ECII<br>Well #8   | Eagle<br>Ridge<br>Dev.<br>Corp. | 89252  | 600' | 4/22/98  | 14" | STACO | G-11762<br>G-12905 | 312' | 72 hrs            |
| EC III<br>Well #9 | Eagle<br>Crest,<br>Inc.         | 111252 | 736  | 11/15/01 | 14" | STACO | G-13819<br>G-14857 | 508' | 72 hrs            |

Please consider my comments and never hesitate to contact me if you have questions or need additional information. To the best of my knowledge, the information in this letter is accurate, and at the time of measurement representative of the static water level in the aquifer. The intent of this submittal is to meet all reporting obligations for Eagle Crest water rights. The water rights are critical to the operations of the Eagle Crest Destination Resort and cannot be jeopardized in any way. Please contact us immediately if you have any questions or concerns with Eagle Crest water rights. Thank you for your review and assistance.

Sincerely,  
W&H PACIFIC, INC.



Thomas A. Walker, P.E., C.W.R.E.  
Vice President

Cc: Alan VanVliet

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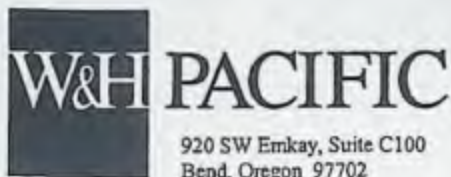


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## TRANSMITTAL

To: Oregon Water Resources Department  
Company: Measurement and Reporting Section  
Address: 725 Summer Street, NE, Suite A  
City/State: Salem, OR 97301-1271  
Phone:  
Fax:

Date: April 26, 2004  
Project Number: 30121  
Project Name: Eagle Crest Resort  
Re: Groundwater Wells  
Annual Water Use

From: Thomas A. Walker, P.E., C.W.R.E.  
Phone: (541) 388-4255  
Fax: (541) 388-4229

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**We are sending:**

☒ Attached

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# Of Pages Including Cover

**These Are Transmitted:**

☒ For Your Info/File

☐ As Requested

☐ For Review & Comment

**Copied To:**

Alan VanVliet

| Copies | Description                                       |
|--------|---------------------------------------------------|
| 1      | Eagle Crest Resort Annual Water Use Summary       |
| 1      | W & H Pacific Correspondence Dated April 14, 2004 |
|        |                                                   |
|        |                                                   |

Comments: My files are not complete and we are not certain if the annual water use report for the Eagle Crest resort has been submitted. Rather than risk not submitting required information, I have enclosed a summary of water use for all operating wells. The attached letter of April 14<sup>th</sup> provides a description of each well and documents the applicable water right for each well. I apologize if this transmittal is redundant. Thanks very much for your assistance.

Civil and Structural Engineering ♦ Landscape Architecture  
Planning ♦ Surveying and Mapping

Washington ♦ Oregon ♦ Idaho

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| WELL   | ECMA & CBUC Water Usage |            |            | GALLONS    |            |
|--------|-------------------------|------------|------------|------------|------------|
|        | 2                       | 3          | 6          | 7          | 8          |
| Oct-02 | 9,539,000               | 652,000    | 16,717,000 | 0          | 5,562,309  |
| Nov-02 | 1,636,000               | 0          | 564,100    | 0          | 337,641    |
| Dec-02 | 1,166,000               | 0          | 2,424,000  | 0          | 275,996    |
| Jan-03 | 503,000                 | 2,669,500  | 2,424,000  | 0          | 275,996    |
| Feb-03 | 624,000                 | 661,243    | 2,061,000  | 0          | 137,396    |
| Mar-03 | 1,972,000               | 4,451,200  | 10,649,000 | 0          | 2,439,657  |
| Apr-03 | 4,855,000               | 328,000    | 13,209,000 | 509,400    | 2,811,710  |
| May-03 | 11,209,000              | 4,822,900  | 22,861,000 | 13,047,000 | 6,567,979  |
| Jun-03 | 16,314,000              | 12,765,600 | 22,701,000 | 9,485,100  | 23,216,421 |
| Jul-03 | 19,702,000              | 21,217,100 | 26,091,000 | 11,145,100 | 35,709,653 |
| Aug-03 | 19,582,000              | 13,874,700 | 19,295,000 | 4,861,900  | 26,439,115 |
| Sep-03 | 16,727,000              | 14,535,600 | 17,865,000 | 2,999,200  | 23,081,714 |

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**INSPECTION REPORT**

**Project:** Eagle Ridge Well  
Well Test  
526-0101

**Date:** March 17, 1992

**Notes By:** Thomas A. Walker, P.E. *TAW*

**Contractor:** A&H Pump

**Distribution:** Bill Lyche

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Well yield testing on the Eagle Ridge production well commenced this morning. Nancy Speaker, with David Newton & Associates, was present to direct monitoring activities, Bill Lyche was present, and three A&H employees were also on the site.

All pumping was completed in the 14 inch diameter production well, completed by Staco Well Services Inc. A&H utilized a diesel engine with a right angle drive and a Verti-Line 12 RM, 12 stage, "A" trim, series 1110 vertical turbine pump. Contractors used a micrometer propeller meter for flow measurements and standard well probes for water level measurements.

Water level measurements at the production well, were obtained with a well probe, inserted in a 3/4 inch PVC tubing. In addition, water level measurements were obtained from the original pilot hole, 35 feet to the south.

The pump was set at 646 feet.

I arrived at the site at 8:30 am and measured the static water level at 518.85 feet below the top of the casing. Contractors later measured the static level at 519.3 feet, measured at a point on the well head housing. This point on the well head housing was the basis for all recorded measurements during the test. This point on the housing is 13 inches above the top of the well casing.

The initial test started at 9:30 am. The flow rate was measured at 700 gpm after the column filled and pumping reached a steady state. An initial draw down of 4 1/2 inches was observed, followed by a recovery to approximately 3 inches. The initial test however, was interrupted at approximately 9:48 am, apparently due to stretch in the column and increased resistance in the pump bowls. Contractors adjusted the bowl clearance and then restarted the pump test at 10:00 am.

The initial flow rate for the second test was 750 gpm. We observed a draw down of approximately 4 inches. At 10:12 am, the flow rate was increased to 1,050 gpm. The draw down increased to 1 foot 8 inches and remained steady. When I left the project at 10:50 am, the draw down remained steady at 1 foot 8 inches, and the flow rate at 1,050 gpm.





**Eagle Ridge Well Test  
Inspection Report  
Page 2**

The contractors collected a sample of water at the initial start up today and observed no evidence of sediment, sand, or grit. Jack Abbas indicated some red cinder material was observed for approximately the first minute after yesterdays startup. Jack also indicated some surging of the well occurred as the pump was initially started. Again, the discharge cleared up after approximately one minute of run time.

We discussed the duration of the pump test. It was agreed the test will be terminated after 8 or 9 hours, if the draw down remains steady. Tentatively, Jack Abbas will increase the flow rate to approximately 1,200 gpm at 6:00 pm tonight. He will monitor water levels in the production well and the pilot well for approximately 1 hour and then end the test.

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Page 1 of 1

Owner \_\_\_\_\_ Address EAGLE RIDGE County DESCHUTES State OR  
3/18/92 Company performing test A & H Measured by \_\_\_\_\_  
 Well No. 1- Distance from pumping well \_\_\_\_\_ Type of test CONSTANT DISCHARGE Test No. 1

| Time Data                                                                                                                               | Water Level Data                                                                                | Discharge Data                                                                                                           | Comments on factors affecting test data |
|-----------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------|-----------------------------------------|
| Pump on: Date _____ Time _____ (t)<br>Pump off: Date _____ Time _____ (t')<br>Duration of aquifer test:<br>Pumping _____ Recovery _____ | Static water level <u>519.3'</u><br>Measuring point _____<br>Elevation of measuring point _____ | How Q measured _____<br>Depth of pump/air line _____<br>Previous pumping? Yes _____ No _____<br>Duration _____ End _____ |                                         |

| Date | Clock time | Time since pump started<br>t | Time since pump stopped<br>t' | t/t' | Water level measurement | Correction or Conversion | Water level | Water level change<br>s or s' | Discharge measurement | Rate     |  | * All MEASUREMENTS<br>1 3/4" Above Top of<br>Casing. |
|------|------------|------------------------------|-------------------------------|------|-------------------------|--------------------------|-------------|-------------------------------|-----------------------|----------|--|------------------------------------------------------|
|      |            |                              |                               |      |                         |                          |             |                               |                       |          |  |                                                      |
|      | 10:00      | 0                            |                               |      | 520' 3/4"               |                          |             |                               |                       | 700 gpm  |  |                                                      |
|      | 10:01      | 1                            |                               |      | 520'                    |                          |             |                               |                       |          |  |                                                      |
|      | 10:02      | 2                            |                               |      | 520' 1/4"               |                          |             |                               |                       |          |  |                                                      |
|      | 10:03      | 3                            |                               |      | 520' 6 1/2"             |                          |             |                               |                       |          |  |                                                      |
|      | 10:04      | 4                            |                               |      | 7"                      |                          |             |                               |                       |          |  |                                                      |
|      | 10:05      | 5                            |                               |      | 6 1/2"                  |                          |             |                               |                       |          |  |                                                      |
|      | 06         | 6                            |                               |      | 7"                      |                          |             |                               |                       |          |  |                                                      |
|      | 07         | 7                            |                               |      | 6 3/4"                  |                          |             |                               |                       |          |  |                                                      |
|      | 08         | 8                            |                               |      | 7"                      |                          |             |                               |                       |          |  |                                                      |
|      | 09         | 9                            |                               |      | 6 3/4"                  |                          |             |                               |                       |          |  |                                                      |
|      | 10         | 10                           |                               |      | 7 1/2"                  |                          |             |                               |                       |          |  |                                                      |
|      | 11         | 11                           |                               |      | 6 3/4"                  |                          |             |                               |                       |          |  |                                                      |
|      | 12         | 12                           |                               |      | 7 1/2"                  |                          |             |                               |                       | 1050 gpm |  | INCREASE TO 1050 GPM                                 |
|      | 13         | 13                           |                               |      | 11"                     |                          |             |                               |                       |          |  |                                                      |
|      | 14         | 14                           |                               |      | 10 3/4"                 |                          |             |                               |                       |          |  |                                                      |
|      | 10:15      | 15                           |                               |      | 10 3/4"                 |                          |             |                               |                       |          |  |                                                      |
|      | 5:20       | 20                           |                               |      | 520' 11 1/4"            |                          |             |                               |                       |          |  |                                                      |
|      |            | 25                           |                               |      | 520' 10 1/4"            |                          |             |                               |                       |          |  |                                                      |
|      |            | 30                           |                               |      | 520' 11"                |                          |             |                               |                       |          |  |                                                      |
|      |            | 35                           |                               |      | 11 1/4"                 |                          |             |                               |                       |          |  |                                                      |
|      |            | 40                           |                               |      | -                       |                          |             |                               |                       |          |  |                                                      |
|      |            | 45                           |                               |      | 11"                     |                          |             |                               |                       |          |  |                                                      |
|      |            | 50                           |                               |      | 11"                     |                          |             |                               |                       |          |  |                                                      |
|      |            | 55                           |                               |      | 11"                     |                          |             |                               |                       |          |  |                                                      |
|      |            | 60                           |                               |      |                         |                          |             |                               |                       |          |  |                                                      |
|      | 3:20       |                              |                               |      | 11"                     |                          |             |                               |                       |          |  |                                                      |
|      |            | 90                           |                               |      | 11 1/4"                 |                          |             |                               |                       |          |  |                                                      |
|      |            | 120                          |                               |      | 11 1/4"                 |                          |             |                               |                       |          |  |                                                      |
|      |            | 150                          |                               |      | 11 1/4"                 |                          |             |                               |                       |          |  |                                                      |

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**WATER RESOURCES DEPT  
SALEM, OREGON**



## AQUIFER TEST DATA

Owner                      Address EAGLE RIDGE County DESCHUTES State OKDate 3/18/92 Company performing test A & H Measured by                     Well No. 1 Distance from pumping well                      Type of test CONSTANT DISCHARGE Test No. 1Measuring equipment                     

| Time Data   |            |                           |                            |                                   | Water Level Data        |                          |                 |                              | Discharge Data        |                        | Comments on factors affecting test data |                                                                            |          |
|-------------|------------|---------------------------|----------------------------|-----------------------------------|-------------------------|--------------------------|-----------------|------------------------------|-----------------------|------------------------|-----------------------------------------|----------------------------------------------------------------------------|----------|
| mp on: Date | Time (t)   | mp off: Date              | Time (t')                  | Duration of aquifer test: Pumping | Recovery                | Static water level       | Measuring point | Elevation of measuring point | How Q measured        | Depth of pump/air line |                                         | Previous pumping? Yes <input type="checkbox"/> No <input type="checkbox"/> | Duration |
| Date        | Clock time | Time since pump started t | Time since pump stopped t' | t/t'                              | Water level measurement | Correction or Conversion | Water level     | Water level change s or s'   | Discharge measurement | Rate                   |                                         |                                                                            |          |
|             |            | 180                       |                            |                                   | 11 1/4"                 |                          | 1:00            |                              |                       |                        |                                         |                                                                            |          |
|             |            | 210                       |                            |                                   | 11 1/4"                 |                          |                 |                              |                       |                        |                                         |                                                                            |          |
|             |            | 240                       |                            |                                   | 11 1/4"                 |                          | 2:00            |                              |                       |                        |                                         |                                                                            |          |
|             |            | 270                       |                            |                                   | 11 1/4"                 |                          | 2:30            |                              |                       |                        |                                         |                                                                            |          |
|             |            | 300                       |                            |                                   | 11 1/4"                 |                          | 3:00            |                              |                       |                        |                                         |                                                                            |          |
|             | HRS        |                           |                            |                                   | 11 1/4"                 |                          | 3:30            |                              |                       |                        |                                         |                                                                            |          |
|             | ↓          | 6                         |                            |                                   | 11 1/4"                 |                          | 4:00            |                              |                       |                        |                                         |                                                                            |          |
|             |            | 7                         |                            |                                   | 11 1/4"                 |                          | 4:30            |                              |                       |                        |                                         |                                                                            |          |
|             |            | 8                         |                            |                                   | 11 1/4"                 |                          | 5:00            |                              |                       |                        |                                         |                                                                            |          |
|             |            | 9                         |                            |                                   | 11 1/4"                 |                          | 5:30            |                              |                       |                        |                                         |                                                                            |          |
|             |            | 10                        |                            |                                   | 11 1/4"                 |                          | 6:00            |                              |                       |                        |                                         |                                                                            |          |
|             |            | 11                        |                            |                                   | 52' 4"                  |                          | 6:02            |                              | —                     | 1200 GPM               |                                         |                                                                            |          |
|             |            | 12                        |                            |                                   | 4 1/4"                  |                          | 6:06            |                              |                       |                        |                                         |                                                                            |          |
|             |            | 13                        |                            |                                   | 52' 1"                  |                          | 6:08            |                              |                       |                        |                                         |                                                                            |          |
|             |            | 14                        |                            |                                   | 52' 1 1/2"              |                          | 6:10            |                              |                       |                        |                                         |                                                                            |          |
|             |            | 15                        |                            |                                   | 52' 1 1/2"              |                          | 6:12            |                              |                       |                        |                                         |                                                                            |          |
|             |            | 16                        |                            |                                   | 1 1/2"                  |                          | 6:14            |                              |                       |                        |                                         |                                                                            |          |
|             |            | 17                        |                            |                                   | 1 1/2"                  |                          | 6:16            |                              |                       |                        |                                         |                                                                            |          |
|             |            | 18                        |                            |                                   | 1 1/2"                  |                          | 6:18            |                              |                       |                        |                                         |                                                                            |          |
|             |            | 19                        |                            |                                   | 1 1/2"                  |                          | 6:25            |                              |                       |                        |                                         |                                                                            |          |
|             |            | 20                        |                            |                                   | 1 1/2"                  |                          | 6:30            |                              |                       |                        |                                         |                                                                            |          |
|             |            | 21                        |                            |                                   | 1 1/2"                  |                          | 6:35            |                              |                       |                        |                                         |                                                                            |          |
|             |            | 22                        |                            |                                   | 1 1/2"                  |                          | 6:40            |                              |                       |                        |                                         |                                                                            |          |
|             |            | 23                        |                            |                                   | 1 1/2"                  |                          | 6:45            |                              |                       |                        |                                         |                                                                            |          |
|             |            | 24                        |                            |                                   | 1 1/2"                  |                          | 6:50            |                              |                       |                        |                                         |                                                                            |          |
|             |            |                           |                            |                                   | 52' 7 1/2"              |                          | 6:51            |                              | 1500                  | GPM                    |                                         |                                                                            |          |
|             |            |                           |                            |                                   | 52' 5 1/2"              |                          | 6:56            |                              | 1500                  |                        |                                         |                                                                            |          |
|             |            |                           |                            |                                   | 52' 6"                  |                          | 6:58            |                              | 1500                  |                        |                                         |                                                                            |          |
|             |            |                           |                            |                                   | 52' 5 1/2"              |                          | 7:00            |                              | STOPPED               |                        |                                         |                                                                            |          |

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Owner \_\_\_\_\_ Address EAGLE RIDGE County DESCHUTES State OR  
3/18/92 Company performing test ASH Measured by \_\_\_\_\_  
 Well No. \_\_\_\_\_ Distance from pumping well 50' Type of test CONSTANT DISCHARGE Test No. 1  
 measuring equipment 5W(+)180 - 799 +

| Time Data                                                                                                                                      |            |                              |                               | Water Level Data                                                                        |                         |                          |                        | Discharge Data                                                                                                                 |      | Comments on factors affecting test data |
|------------------------------------------------------------------------------------------------------------------------------------------------|------------|------------------------------|-------------------------------|-----------------------------------------------------------------------------------------|-------------------------|--------------------------|------------------------|--------------------------------------------------------------------------------------------------------------------------------|------|-----------------------------------------|
| Pump on: Date _____ Time _____ (t.)<br>Pump off: Date _____ Time _____ (t')<br>Duration of aquifer test: _____<br>Pumping _____ Recovery _____ |            |                              |                               | Static water level _____<br>Measuring point _____<br>Elevation of measuring point _____ |                         |                          |                        | How Q measured _____<br>Depth of pump/air line <u>642'</u><br>Previous pumping? Yes _____ No _____<br>Duration _____ End _____ |      |                                         |
| Date                                                                                                                                           | Clock time | Time since pump started<br>t | Time since pump stopped<br>t' | t/t'                                                                                    | Water level measurement | Correction or Conversion | Water level<br>s or s' | Discharge measurement                                                                                                          | Rate |                                         |
| 7/8                                                                                                                                            | 0          |                              |                               |                                                                                         | 798.65                  |                          |                        |                                                                                                                                | 700  |                                         |
|                                                                                                                                                | 2          |                              |                               |                                                                                         | 798.65                  |                          |                        |                                                                                                                                |      |                                         |
|                                                                                                                                                | 4          |                              |                               |                                                                                         | 798.7                   |                          |                        |                                                                                                                                |      |                                         |
|                                                                                                                                                | 6          |                              |                               |                                                                                         | 798.7                   |                          |                        |                                                                                                                                |      |                                         |
|                                                                                                                                                | 8          |                              |                               |                                                                                         | 798.7                   |                          |                        |                                                                                                                                |      |                                         |
|                                                                                                                                                | 10         |                              |                               |                                                                                         | 798.7                   |                          |                        |                                                                                                                                |      |                                         |
|                                                                                                                                                | 12         |                              |                               |                                                                                         |                         |                          |                        |                                                                                                                                |      |                                         |
|                                                                                                                                                | 14         |                              |                               |                                                                                         | 798.76                  |                          |                        |                                                                                                                                |      |                                         |
|                                                                                                                                                | 16         |                              |                               |                                                                                         | 798.75                  |                          |                        |                                                                                                                                |      |                                         |
|                                                                                                                                                | 18         |                              |                               |                                                                                         | 798.75                  |                          |                        |                                                                                                                                |      |                                         |
|                                                                                                                                                | 20         |                              |                               |                                                                                         | 798.75                  |                          |                        |                                                                                                                                |      |                                         |
|                                                                                                                                                | 22         |                              |                               |                                                                                         | 798.75                  |                          |                        |                                                                                                                                |      |                                         |
|                                                                                                                                                | 24         |                              |                               |                                                                                         | 798.75                  |                          |                        |                                                                                                                                |      |                                         |
|                                                                                                                                                | 26         |                              |                               |                                                                                         | 798.75                  |                          |                        |                                                                                                                                |      |                                         |
|                                                                                                                                                | 28         |                              |                               |                                                                                         | 798.75                  |                          |                        |                                                                                                                                |      |                                         |
|                                                                                                                                                | 30         |                              |                               |                                                                                         | 798.75                  |                          |                        |                                                                                                                                |      |                                         |
|                                                                                                                                                | 32         |                              |                               |                                                                                         |                         |                          |                        |                                                                                                                                |      |                                         |
|                                                                                                                                                | 34         |                              |                               |                                                                                         |                         |                          |                        |                                                                                                                                |      |                                         |
|                                                                                                                                                | 36         |                              |                               |                                                                                         | 798.75                  |                          |                        |                                                                                                                                |      |                                         |
|                                                                                                                                                | 38         |                              |                               |                                                                                         |                         |                          |                        |                                                                                                                                |      |                                         |
|                                                                                                                                                | 40         |                              |                               |                                                                                         |                         |                          |                        |                                                                                                                                |      |                                         |
|                                                                                                                                                | 42         |                              |                               |                                                                                         |                         |                          |                        |                                                                                                                                |      |                                         |
|                                                                                                                                                | 44         |                              |                               |                                                                                         |                         |                          |                        |                                                                                                                                |      |                                         |
|                                                                                                                                                | 46         |                              |                               |                                                                                         | 798.75                  |                          |                        |                                                                                                                                |      |                                         |
|                                                                                                                                                | 48         |                              |                               |                                                                                         |                         |                          |                        |                                                                                                                                |      |                                         |
|                                                                                                                                                | 50         |                              |                               |                                                                                         | 798.7                   |                          |                        |                                                                                                                                |      |                                         |
|                                                                                                                                                | 52         |                              |                               |                                                                                         |                         |                          |                        |                                                                                                                                |      |                                         |
|                                                                                                                                                | 54         |                              |                               |                                                                                         |                         |                          |                        |                                                                                                                                |      |                                         |
|                                                                                                                                                | 56         |                              |                               |                                                                                         |                         |                          |                        |                                                                                                                                |      |                                         |

START HERE  
 2nd 750

immediate recovery  
 1000

Pump STOPPED  
 Change Pump Rate to

NOTE: THE WELL  
 PROBE USED FOR  
 THESE MEASUREMENTS  
 HAD BEEN SPLICED.  
 SUBTRACT 280.00 FT  
 FROM ALL MEASUREMENTS  
 REFERENCE 3-24-92  
 WHP FIELD VERIFICATION

7/11/

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920 SW Emkay, Suite C100  
Bend, Oregon 97702-1041  
541.388.4255  
Fax 541.388.4229

Eagle Ridge Well #7 (Pilot Hole #1)  
Pump Test Records

Monday - October 28, 1991

Prepared By: W&H Pacific, Inc.

Static Water Level Prior To Pump Test: 519.6

Pump Rate: 215 gpm – 220 gpm

| <u>Time</u> | <u>Pump Rate</u> | <u>Static Level</u> |
|-------------|------------------|---------------------|
| 0           | 220 gpm          | 519.6               |
| 1 Minute    | 215 gpm          | 519.9               |
| 2 Minute    | 215 gpm          | 519.6               |
| 3 Minute    | 215 gpm          | 519.6               |
| 15 Minute   | 215 gpm          | 519.6               |

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Well #8

Page 1

## WELL TEST DATA SHEET

Tested by A & H Pump Service Static W/L 315.7 Date 5-5-98  
 Owners Name Eagle Crest Well Location Ridge  
 Drillers Name Staco Diameter of Well \_\_\_\_\_  
 Casing Size 14" Bottom of Well \_\_\_\_\_  
 Diameter of Borehole 12" Diameter of Column \_\_\_\_\_  
 Test Pump Set @ \_\_\_\_\_ (1) Air Line \_\_\_\_\_ Ft.  
 Flow Meter Used ☒ (2) Electric Probe ✓  
 Flow Tube Used ☐ Orifice Dia. \_\_\_\_\_ (3) Sonic Sounder \_\_\_\_\_

| TIME |     | TOWATER  | HEAD   | FLOW   | ENGINE | REMARKS                     |
|------|-----|----------|--------|--------|--------|-----------------------------|
| Hr   | Min | Depth Ft | Inches | G.P.M. | R.P.M. |                             |
| 12   | 30  | 315.7    |        |        |        | Start Test                  |
|      | 32  | 322.7    |        |        |        |                             |
|      | 34  | 322.7    |        |        |        |                             |
|      | 36  | 322.7    |        |        |        |                             |
|      | 38  | 324      |        |        |        |                             |
|      | 40  | 324      |        |        |        |                             |
|      | 45  | 324.5    |        |        |        |                             |
|      | 50  | 324.5    |        |        |        |                             |
|      | 55  | 324.5    |        |        |        |                             |
| 1    | 00  | 324.7    |        |        |        |                             |
|      | 10  | 325      |        |        |        |                             |
|      | 20  | 325.3    |        |        |        |                             |
|      | 30  | 325.3    |        |        |        |                             |
|      | 40  | 325.3    |        |        |        |                             |
|      | 50  | 325.3    |        |        |        |                             |
| 2    | 00  | 325.3    |        |        |        |                             |
|      | 10  | 325.6    |        |        |        |                             |
|      | 20  | 326.6    |        |        |        |                             |
| 2    | 30  | 325.6    |        | 500    |        | Increased To 750 GPM        |
|      | 32  | 326.5    |        |        |        |                             |
|      | 34  | 328.7    |        |        |        |                             |
|      | 36  | 329.5    |        |        |        |                             |
|      | 38  | 329.5    |        |        |        |                             |
|      | 40  | 329.5    |        |        |        |                             |
|      | 45  | 329.5    |        |        |        |                             |
|      | 50  | 330      |        |        |        |                             |
|      | 55  | 330      |        |        |        |                             |
| 3    | 00  | 330.3    |        |        |        |                             |
|      | 10  | 330.5    |        |        |        |                             |
|      | 20  | 330.4    |        |        |        |                             |
|      | 30  | 330.7    |        |        |        |                             |
|      | 40  | 330.6    |        |        |        |                             |
|      | 50  | 330.9    |        |        |        |                             |
| 4    | 00  | 331      |        |        |        |                             |
|      | 10  | 331      |        |        |        |                             |
|      | 20  | 331      |        |        |        |                             |
| 4    | 30  | 331      |        | 750    |        | Increased Speed to 1000 GPM |
|      | 32  | 335      |        | 1000   |        |                             |

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## WELL TEST DATA SHEET

Tested by A & H Pump Service Static W/L 315.7 Date 5-5-98  
 Owners Name Eagle Crest Well Location R. Lee  
 Drillers Name Staco Diameter of Well \_\_\_\_\_  
 Casing Size \_\_\_\_\_ Bottom of Well \_\_\_\_\_  
 Diameter of Borehole 12" Diameter of Column 8"  
 Test Pump Set @ 443 Bottom of Pump (1) Air Line \_\_\_\_\_ Ft.  
 Flow Meter Used ☒ (2) Electric Probe ☒  
 Flow Tube Used ☐ Orifice Dia. \_\_\_\_\_ (3) Sonic Sounder \_\_\_\_\_

| TIME |     | TO WATER | HEAD   | FLOW            | ENGINE | REMARKS                     |
|------|-----|----------|--------|-----------------|--------|-----------------------------|
| Hr   | Min | Depth Ft | Inches | G.P.M.          | R.P.M. |                             |
| 4    | 34  | 335      |        |                 |        |                             |
|      | 36  | 335.7    |        |                 |        |                             |
|      | 38  | 335.7    |        |                 |        |                             |
|      | 40  | 336.2    |        |                 |        |                             |
|      | 45  | 336.8    |        |                 |        |                             |
|      | 50  | 337.2    |        |                 |        |                             |
|      | 55  | 337.6    |        |                 |        |                             |
| 5    | 00  | 338      |        |                 |        |                             |
|      | 10  | 338      |        |                 |        |                             |
|      | 20  | 338      |        |                 |        |                             |
| 5    | 30  | 338      |        |                 |        |                             |
|      | 40  | 338      |        |                 |        |                             |
|      | 50  | 338      |        |                 |        |                             |
| 6    | 00  | 338      |        |                 |        |                             |
|      | 10  | 338      |        |                 |        |                             |
|      | 20  | 338      |        | 1000            |        |                             |
| 6    | 30  | 338      | 1000   | <del>1000</del> |        | Increased Speed to 1250 GPM |
|      | 32  | 343      | 1250   | <del>1000</del> | 1250   |                             |
|      | 34  | 344      |        |                 |        |                             |
|      | 36  | 344.7    |        |                 |        |                             |
|      | 38  | 345.3    |        |                 |        |                             |
|      | 40  | 345.3    |        |                 |        |                             |
|      | 45  | 345.3    |        |                 |        |                             |
|      | 50  | 345.3    |        |                 |        |                             |
|      | 55  | 345.7    |        |                 |        |                             |
| 7    | 00  | 346      |        |                 |        |                             |
|      | 10  | 348      |        |                 |        |                             |
|      | 20  | 348.2    |        |                 |        |                             |
| 7    | 30  | 348.7    |        |                 |        |                             |
|      | 40  | 348.9    |        |                 |        |                             |
|      | 50  | 349.1    |        |                 |        |                             |
| 8    | 00  | 349.2    |        |                 |        |                             |
|      | 10  | 349.4    |        |                 |        |                             |
|      | 20  | 349.2    |        |                 |        |                             |
| 8    | 30  | 349.2    | 1250.  | 1250            |        | Increased Speed to 1550 GPM |
|      | 32  | 354      | 1550   | 1550            |        |                             |
|      | 34  | 355      |        |                 |        |                             |
|      | 36  | 355.5    |        |                 |        |                             |

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## WELL TEST DATA SHEET

Tested by A+H Pump Service Static W/L \_\_\_\_\_ Date \_\_\_\_\_  
 Owners Name \_\_\_\_\_ Well Location \_\_\_\_\_  
 Drillers Name \_\_\_\_\_ Diameter of Well \_\_\_\_\_  
 Casing Size \_\_\_\_\_ Bottom of Well \_\_\_\_\_  
 Diameter of Bowls \_\_\_\_\_ Diameter of Column \_\_\_\_\_  
 Test Pump Set @ \_\_\_\_\_ (1) Air Line \_\_\_\_\_ Ft.  
 Flow Meter Used ☐ (2) Electric Probe \_\_\_\_\_  
 Flow Tube Used ☐ Orifice Dia. \_\_\_\_\_ (3) Sonic Sounder \_\_\_\_\_

| TIME |     | TOWATER  | HEAD   | FLOW   | ENGINE | REMARKS |
|------|-----|----------|--------|--------|--------|---------|
| Hr   | Min | Depth Ft | Inches | G.P.M. | R.P.M. |         |
| 8    | 38  | 355.8    |        | 1550   |        |         |
|      | 40  | 356.2    |        |        |        |         |
|      | 45  | 358.4    |        |        |        |         |
|      | 50  | 358.7    |        |        |        |         |
|      | 55  | 358.6    |        |        |        |         |
| 9    | 00  | 359.4    |        |        |        |         |
|      | 10  | 359.3    |        |        |        |         |
|      | 20  | 359.4    |        |        |        |         |
| 9    | 30  | 359.5    |        |        |        |         |
|      | 40  | 359.4    |        |        |        |         |
|      | 50  | 359      |        |        |        |         |
| 10   | 00  | 360.2    |        |        |        |         |
|      | 10  | 360.3    |        |        |        |         |
|      | 20  | 360.4    |        |        |        |         |
| 10   | 30  | 360.4    |        |        |        |         |
|      | 40  | 360.7    |        |        |        |         |
|      | 50  | 360      |        |        |        |         |
| 11   | 00  | 361.3    |        |        |        |         |
|      | 10  | 361.3    |        |        |        |         |
|      | 20  | 361.3    |        |        |        |         |
|      | 30  | 361.3    |        |        |        |         |
|      | 40  | 361.3    |        |        |        |         |
|      | 50  | 361.3    |        |        |        |         |
| 12   | 00  | 361.5    |        |        |        |         |
|      | 10  | 361.5    |        |        |        |         |
|      | 20  | 361.5    |        |        |        |         |
| 12   | 30  | 361.6    |        |        |        |         |
|      | 40  | 361.6    |        |        |        |         |
|      | 50  | 360.4    |        |        |        |         |
| 1    | 00  | 360.2    |        |        |        |         |
|      | 10  | 360.2    |        |        |        |         |
|      | 20  | 359.8    |        |        |        |         |
|      | 30  | 358.4    |        |        |        |         |
|      | 40  | 358.4    |        |        |        |         |
|      | 50  | 358.4    |        |        |        |         |
| 2    | 00  | 358      |        |        |        |         |
|      | 10  | 358.8    |        |        |        |         |
|      | 20  | 358.8    |        |        |        |         |

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## WELL TEST DATA SHEET

Tested by A & H Pump Service Static W/L \_\_\_\_\_ Date \_\_\_\_\_  
 Owners Name \_\_\_\_\_ Well Location \_\_\_\_\_  
 Drillers Name \_\_\_\_\_ Diameter of Well \_\_\_\_\_  
 Casing Size \_\_\_\_\_ Bottom of Well \_\_\_\_\_  
 Diameter of Bore \_\_\_\_\_ Diameter of Column \_\_\_\_\_  
 Test Pump Set @ \_\_\_\_\_ (1) Air Line \_\_\_\_\_ Ft.  
 Flow Meter Used ☐ (2) Electric Probe \_\_\_\_\_  
 Flow Tube Used ☐ Orifice Dia. \_\_\_\_\_ (3) Sonic Sounder \_\_\_\_\_

| TIME |     | TO WATER | HEAD   | FLOW   | ENGINE | REMARKS      |
|------|-----|----------|--------|--------|--------|--------------|
| Hr   | Min | Depth Ft | Inches | G.P.M. | R.P.M. |              |
| 2    | 30  | 358      |        | 1550   |        |              |
|      | 40  | 358      |        |        |        |              |
|      | 50  | 358      |        |        |        |              |
| 3    | 00  | 357.4    |        |        |        |              |
|      | 10  | 357.4    |        |        |        |              |
|      | 20  | 357.4    |        |        |        |              |
| 3    | 30  | 357.4    |        |        |        |              |
|      | 40  | 357.4    |        |        |        |              |
|      | 50  | 357.5    |        |        |        |              |
| 4    | 00  | 359.4    |        |        |        |              |
|      | 10  | 359.7    |        |        |        |              |
|      | 20  | 359.7    |        |        |        |              |
| 4    | 30  | 359.7    |        |        |        |              |
|      | 40  | 359.7    |        |        |        |              |
|      | 50  | 359.7    |        |        |        |              |
| 5    | 00  | 359.7    |        |        |        |              |
|      | 10  | 359      |        |        |        |              |
|      | 20  | 359      |        |        |        |              |
| 5    | 30  | 359      |        |        |        |              |
|      | 40  | 359      |        |        |        |              |
|      | 50  | 359      |        |        |        |              |
| 6    | 00  | 359      | 1550   | 1550   |        | Stopped Test |
|      | 02  | 340.9    |        |        |        |              |
|      | 04  | 338.8    |        |        |        |              |
|      | 06  | 336.2    |        |        |        |              |
|      | 08  | 334.4    |        |        |        |              |
|      | 10  | 332.9    |        |        |        |              |
|      | 15  | 330.2    |        |        |        |              |
|      | 20  | 328.1    |        |        |        |              |
|      | 25  | 326.7    |        |        |        |              |
| 6    | 30  | 325.6    |        |        |        |              |
|      | 40  | 323.6    |        |        |        |              |
|      | 50  | 322.4    |        |        |        |              |
| 7    | 00  | 321.4    |        |        |        |              |
|      | 10  | 320.6    |        |        |        |              |
|      | 20  | 320      |        |        |        |              |
|      | 30  | 319.6    |        |        |        |              |
|      | 40  | 319.4    |        |        |        |              |

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WATER RESOURCES DEPT  
SALEM, OREGON



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**JUL 25 2008**

**WATER RESOURCES DEPT  
SALEM, OREGON**



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AUG 23 1991

W & H PACIFIC INC

1921 gpm

Thomas Walbe

STATE OF OREGON

COUNTY OF DESCHUTES

PERMIT TO APPROPRIATE THE PUBLIC WATERS

THIS PERMIT IS HEREBY ISSUED TO

EAGLE RIDGE DEVELOPMENT CORPORATION  
P.O. BOX 1215  
REDMOND, OREGON 97756

to use the waters of THREE WELLS in the DESCHUTES RIVER BASIN for IRRIGATION OF 317.22 ACRES AND COMMERCIAL USE (GOLF COURSE).

This permit is issued approving Application G-12429. The date of priority is FEBRUARY 26, 1991. The use is limited to not more than 4.28 CUBIC FEET PER SECOND (CFS); BEING 3.97 CFS FOR IRRIGATION AND 0.31 CFS FOR COMMERCIAL USE, or its equivalent in case of rotation, measured at the wells.

The wells are located as follows:

WELL 1 - NE 1/4 NE 1/4, SECTION 22, T 15 S, R 12 W, W.M.; 350 FEET SOUTH AND 1170 FEET WEST FROM NE CORNER, SECTION 22;

WELL 2 - NW 1/4 SE 1/4, SECTION 15, T 15 S, R 12 W, W.M.; 840 FEET SOUTH AND 200 FEET EAST FROM C 1/4 CORNER, SECTION 15;

WELL 3 - SE 1/4 NE 1/4, SECTION 22, T 15 S, R 12 W, W.M.; 2300 FEET SOUTH AND 150 FEET WEST FROM NE CORNER, SECTION 22.

The amount of water used for irrigation under this right, together with the amount secured under any other right existing for the same lands, is limited to a diversion of ONE-EIGHTIETH of one cubic foot per second (or its equivalent) and 3.0 acre-feet for each acre irrigated. The use of water for irrigation may be made at any time that water can be put to beneficial use.

The use shall conform to such reasonable rotation system as may be ordered by the proper state officer.

A description of the proposed place of use under this permit is as follows:

|               |                                |
|---------------|--------------------------------|
| SW 1/4 NE 1/4 | 1.43 ACRES AND COMMERCIAL USE  |
| NW 1/4 NW 1/4 | 20.15 ACRES AND COMMERCIAL USE |
| SW 1/4 NW 1/4 | 17.24 ACRES AND COMMERCIAL USE |
| SE 1/4 NW 1/4 | 7.26 ACRES AND COMMERCIAL USE  |
| NE 1/4 SW 1/4 | 19.38 ACRES AND COMMERCIAL USE |
| NW 1/4 SW 1/4 | 23.32 ACRES AND COMMERCIAL USE |
| SW 1/4 SW 1/4 | 24.27 ACRES AND COMMERCIAL USE |
| SE 1/4 SW 1/4 | 13.08 ACRES AND COMMERCIAL USE |
| SECTION 14    |                                |

|               |                                |
|---------------|--------------------------------|
| SW 1/4 NE 1/4 | 11.87 ACRES AND COMMERCIAL USE |
| SE 1/4 NE 1/4 | 19.31 ACRES AND COMMERCIAL USE |
| NE 1/4 SE 1/4 | 20.07 ACRES AND COMMERCIAL USE |
| NW 1/4 SE 1/4 | 16.15 ACRES AND COMMERCIAL USE |
| SW 1/4 SE 1/4 | 14.56 ACRES AND COMMERCIAL USE |
| SE 1/4 SE 1/4 | 26.58 ACRES AND COMMERCIAL USE |
| SECTION 15    |                                |

|               |                                |
|---------------|--------------------------------|
| NE 1/4 NE 1/4 | 26.88 ACRES AND COMMERCIAL USE |
| NW 1/4 NE 1/4 | 23.36 ACRES AND COMMERCIAL USE |
| SE 1/4 NE 1/4 | 11.04 ACRES AND COMMERCIAL USE |
| SECTION 22    |                                |

|               |                                |
|---------------|--------------------------------|
| NE 1/4 NW 1/4 | COMMERCIAL USE                 |
| NW 1/4 NW 1/4 | 21.27 ACRES AND COMMERCIAL USE |
| SECTION 23    |                                |

TOWNSHIP 15 SOUTH, RANGE 12 EAST, W.M.

Application G-12429 Water Resources Department PERMIT G-11313

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WATER RESOURCES DEPT  
SALEM, OREGON



PAGE TWO

The well shall be constructed in accordance with the General Standards for the Construction and Maintenance of Water Wells in Oregon. The works shall be equipped with a usable access port, and may also include an air line and pressure gauge adequate to determine water level elevation in the well at all times. When required by the department, the permittee shall install and maintain a weir, meter, or other suitable measuring device, and shall keep a complete record of the amount of ground water withdrawn.

Prior to receiving a certificate of water right, the permit holder shall submit the results of a pump test meeting the department's standards, to the Water Resources Department. The Director may require water level or pump test results every ten years thereafter.

Actual construction work shall begin on or before August 12, 1992, and shall be completed on or before October 1, 1993. Complete application of the water shall be made on or before October 1, 1994.

Failure to comply with any of the provisions of this permit may result in action including, but not limited to, restrictions on the use, civil penalties, or cancellation of the permit.

This permit is for beneficial use of water without waste. The water user is advised that new regulations may require use of best practical technologies or conservation practices to achieve this end.

By law, the land use associated with this water use must be in compliance with statewide land-use goals and any local acknowledged land-use plan.

The use of water shall be limited when it interferes with any prior surface or ground water rights.

Issued this date, AUGUST 12, 1991.

*William H. Young*  
Water Resources Department  
William H. Young  
Director

Application G-12429 Water Resources Department  
Basin 5 Volume 1 Deschutes River & Misc.  
G-12429.SB MGMT.CODE 3LW

PERMIT G-11313  
District 11

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WATER RESOURCES DEPT  
SALEM, OREGON

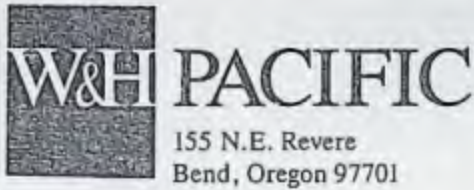


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**WATER RESOURCES DEPT  
SALEM, OREGON**





September 3, 1997

Oregon Water Resources Department  
158 12th Street NE  
Salem, OR 97310-0210

**Re: Eagle Ridge Development Corporation**  
**Permit No.: G-11762**  
**Application No.: G-12905**  
**W&H Pacific File No: 0526-0105**

**RECEIVED**

**JUL 25 2008**

**WATER RESOURCES DEPT  
SALEM, OREGON**

Gentlemen/Ladies:

I have enclosed an executed time extension application and a check in the amount of \$100.00 for the referenced quasi-municipal permit at Eagle Crest. Your review and approval of time extensions to complete construction of appropriate water facilities and accomplish beneficial use of water are respectfully requested.

Quasi-municipal permit number G-11762 was issued to Eagle Crest in 1994, primarily to support the development of an expansion at the existing Eagle Crest Resort. Development of the resort has been underway since that time, and significant progress has been made in perfecting the permit. Complete construction of all facilities and beneficial use of all necessary water supplies has not yet been accomplished, due to the phased development of the resort property. As you would expect, additional time is required to complete the phased development for this large scale resort project.

Since the permit was issued, Eagle Crest has constructed two wells, installed 50 horsepower and 300 horsepower pumps in the wells, constructed well house improvements including valves and controls, constructed a 300,000 gallon storage reservoir, constructed miles of water distribution piping, and developed approximately 350 homesites or dwelling units. Eagle Crest has also developed numerous recreational and commercial facilities, including an 18 hole golf course, recreation center, pro shop, hotel expansion, conference center and sales office.

Within the past year, Eagle Crest has developed approximately 150 homesites, including construction of 5 four-plex units, an eight-plex unit, a recreation center, hotel expansion, conference center and single family homesites. Approximately 13,000 lineal feet of 8" to 10" water mains and associated appurtenances have been installed to serve this development. Within the past year, Eagle Crest has invested approximately \$500,000 in water distribution system improvements at the Resort.





September 3, 1997

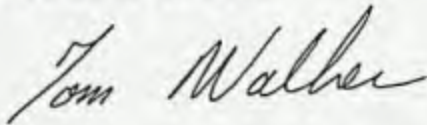
Page 2

Development at Eagle Crest II is continuing at a rapid pace, but even at this pace, additional years are required for the approximate 850 units in the Phase II project.

Please consider my request and never hesitate to contact me if you have questions or needs for additional information. Thank you for your assistance.

Very truly yours,

W&H PACIFIC, INC.

A handwritten signature in cursive script that reads "Tom Walker".

Thomas A. Walker, P.E., C.W.R.E.  
Vice President

TW/klf

enclosure

cc: William D. Lyche

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**JUL 25 2008**

**WATER RESOURCES DEPT  
SALEM, OREGON**



File No. G-12905

## APPLICATION FOR EXTENSION OF TIME

TO THE WATER RESOURCES DIRECTOR OF OREGON

I, Eagle Ridge Development Corporation

|                        |                     |                      |                    |                       |
|------------------------|---------------------|----------------------|--------------------|-----------------------|
| <u>PO Box 1215</u>     | <u>Redmond</u>      | <u>OR</u>            | <u>97756</u>       | <u>(541) 923-0807</u> |
| <small>address</small> | <small>city</small> | <small>state</small> | <small>zip</small> | <small>phone</small>  |

record owner of permit No. G-11762, do hereby request that the time in which to:

☒ complete the construction of works and/or purchase and installation of the equipment necessary to the use of water, which time now expires on October 1, 1997, be extended to October 1, 1998, and/or the time in which to

☒ accomplish beneficial use of water to the full extent under the terms of the permit, which time, now expires on October 1, 1998, be extended to October 1, 1999.

I have accomplished the following described works and/or purchase and installation of equipment necessary to use of water under said permit.

(1) within past year: Installed approximately 13,000 lineal feet of water distribution piping and appurtenances and developed + 150 dwelling sites, a conference center, recreational facility, and hotel expansion.

(2) prior to this past year: Constructed two wells, a 300,000 gallon domestic water reservoir, developed approximately 200 dwelling sites, constructed a sales office, opened an 18 hole golf course, etc.

(3) and have accomplished beneficial use of water to the extent of (if for irrigation, state how many acres have been irrigated)

(please reference to the attached cover letter)

(4) unable to complete construction and/or application of water within the permit time limits because \_\_\_\_\_

Wm D. Pugh  
signature

9/2/97  
date

MAIL APPLICATION AND STATUTORY FEE OF \$100 FOR EACH PERMIT TO:  
WATER RESOURCES DEPARTMENT  
158 12TH ST NE  
SALEM, OREGON 97310

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WATER RESOURCES DEPT  
SALEM, OREGON



W & H PACIFIC, INC.  
OFFICE ACCOUNT  
155 NE REVERE 388-4255  
BEND, OR 97701

4543

DATE 9/3/97 24-22  
1230

PAY TO THE ORDER OF Oregon Water Resources \$ 100.<sup>00</sup>  
one hundred 00/100 DOLLARS Security features  
included. Details on back.

**U.S. BANK**  
BEND BRANCH  
P.O. BOX 911 BEND, OR 97709  
UNITED STATES NATIONAL BANK OF OREGON

FOR [REDACTED] Thomas A Walker

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WATER RESOURCES DEPT  
SALEM, OREGON





*Creative Solutions ... Superior Service*

## CONVERSATION RECORD

(541) 388-4255  
Fax (541) 388-4229

♦ Planning      ♦ Surveying  
♦ Engineering   ♦ Landscape Architecture

|                                                                              |                                                                                     |
|------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Conversation with: Dallas Miller<br>Oregon Water Resources Department (OWRD) | Date: 11-20-97                                                                      |
|                                                                              | Time: 8:30 a.m.                                                                     |
| Distribution:                                                                |                                                                                     |
| Phone Number: 624-3199                                                       | Type: <input checked="" type="checkbox"/> Telephone <input type="checkbox"/> Direct |
| Project: Eagle Crest II Wells                                                | By: Thomas A. Walker, P.E.                                                          |
| Job Number: 526-01-05                                                        |                                                                                     |
| Subject: Water Right Extensions<br>OWRD Permit G-11762                       | Action Required: <input type="checkbox"/> Yes <input type="checkbox"/> No           |

### VOICE MAIL

Note: I called earlier and requested clarification of OWRD actions and options on water right extensions.

Dallas Miller reported OWRD is making new rules for extensions. No extensions will be processed before March 1998. Unless Eagle Crest can complete all work under a permit within one year, then OWRD will defer extension application processing. Dallas acknowledged that due to the size of Eagle Crest, our permit work can not be completed. Permits are not affected. Eagle Crest should do nothing at this time and wait for OWRD processing next spring.

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**JUL 25 2008**

Washington ♦ Oregon ♦ Idaho

**WATER RESOURCES DEPT  
SALEM, OREGON**





920 S.W. Emkay Dr., Suite C-100  
Bend, Oregon 97702

September 30, 1998

Mr. Dallas Miller  
Oregon Water Resources Department  
158 12th Street NE  
Salem, OR 97301-0210

**RE: Eagle Ridge Development Corporation**  
**Permit No. G-11762**  
**Application No. G-12905**  
**WHP File No. 526-0105**

Dear Dallas:

I have enclosed an executed time extension application and check in the amount of \$100.00 for the referenced quasimunicipal permit at Eagle Crest. Your review and approval of time extensions to complete construction of appropriate water facilities and accomplish beneficial use of water are respectfully requested.

Quasimunicipal Permit No. G-11762 was issued to Eagle Crest in 1994, primarily to support the development of an expansion of the existing Eagle Crest Resort. Development of the Resort has been underway since that time, and significant progress has been made in perfecting the permit. Complete construction of all facilities and beneficial use of all necessary water supplies has not yet been accomplished, due to the phased development of the Resort property. As you would expect, additional time is required to complete the phased development for this large scale resort project.

Since the permit was issued, Eagle Crest has constructed three wells, installed pumps and motors and made all three wells operational, constructed a 300,000 gallon storage reservoir, constructed miles of water distribution piping, developed an 18-hole golf course, made significant progress on an additional 9-hole golf course, constructed recreational amenities and completed commercial facilities. Approximately 500 homesites in the form of single-family lots or multi-family lots/units have been developed.

Within the past year, Eagle Crest has completed the grading on a new 18-hole golf course and completed the irrigation system installation on nine of those holes. Eagle Crest constructed a new well, including installation of a 250 horse power vertical turbine well pump, well house improvements and all piping connections. Approximately 140 homesites or multi-family units have been made available in 1998, including the installation of approximately 9000 lineal feet of 8" and 10" water mains. Within the past year, Eagle Crest has invested approximately \$900,000 in domestic water and irrigation system improvements.

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**JUL 25 2008**

**WATER RESOURCES DEPT  
SALEM, OREGON**



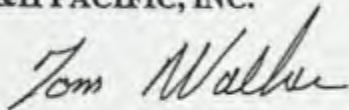


Development at Eagle Crest is continuing at a rapid pace, but even at this pace, additional years are required for the approximately 1200 units approved for the project. At the same pace of development, six additional years will be required to complete the development. This schedule however is fully dependent upon market demand for the Eagle Crest residential inventory. We have respectfully requested a six year extension to complete construction and full application of water to beneficial use.

Please consider my request and never hesitate to contact me if you have questions or needs for additional information. This water right permit is critical to Eagle Crest and we do not want to jeopardize the permit right in any way. Thank you for your assistance.

Very Truly Yours,

W&H PACIFIC, INC.



Thomas A. Walker, P.E., C.W.R.E.  
Vice President

Cc: William D. Lyche

Tw100198.doc

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**WATER RESOURCES DEPT  
SALEM, OREGON**



File No. G-12905

## APPLICATION FOR EXTENSION OF TIME

TO THE WATER RESOURCES DIRECTOR OF OREGON

I, Eagle Ridge Development Corporation

P.O. Box 1215 Redmond, OR 97756 (541) 923-0807  
address city state zip phone

record owner of permit No. G-11762, do hereby request that the time in which to:

☒ complete the construction of works and/or purchase and installation of the equipment necessary to the use of water, which time now expires on October 1, 1998, be extended to October 1, ~~2000~~, and/or the time in which to 2004

☒ accomplish beneficial use of water to the full extent under the terms of the permit, which time, now expires on October 1, 19  , be extended to October 1, ~~2000~~ 2005

I have accomplished the following described works and/or purchase and installation of equipment necessary to use of water under said permit.

(1) within past year Constructed +9000 lineal feet of 8" and 10" domestic water mainline, +150 water services, +20 fire hydrants, and constructed a new well.

(2) prior to this past year Constructed two wells, a 300,000 gallon reservoir, developed approximately 500 residential units, opened an 18-hole golf course, etc.

(3) and have accomplished beneficial use of water to the extent of (if for irrigation, state how many acres have been irrigated)

(please reference the attached cover letter)

(4) unable to complete construction and/or application of water within the permit time limits because of the phased development for the large scale Eagle Crest Resort project.

Bill Sykes Dir. of Development  
signature

9/30/98  
date

MAIL APPLICATION AND STATUTORY FEE OF \$100 FOR EACH PERMIT TO:  
WATER RESOURCES DEPARTMENT  
158 12TH ST NE  
SALEM, OREGON 97310

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WATER RESOURCES DEPT  
SALEM, OREGON



W & H PACIFIC, INC.

OFFICE ACCOUNT  
155 NE REVERE 388-4255  
BEND, OR 97701

4952

DATE 10/1/98

24-22  
1230 42

PAY  
TO THE  
ORDER OF

Oregon Water Resources

\$ 100.00

one hundred

00/100

DOLLARS 

**U.S. BANK**  
BEND BRANCH  
P.O. BOX 911 BEND, OR 97709  
UNITED STATES NATIONAL BANK OF OREGON

FOR

Zeri Cavallo

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**WATER RESOURCES DEPT  
SALEM, OREGON**





# Oregon

John A. Kitzhaber, M.D., Governor

## Water Resources Department

Commerce Building  
158 12th Street NE  
Salem, OR 97310-0210  
(503) 378-3739  
FAX (503) 378-8130

October 23, 1998

EAGLE RIDGE DEVELOPMENT, CORP.  
PO BOX 1215  
REDMOND, OR 97756

Reference: Files G 12905 Permit G 11762

Dear Extension Applicant:

We have received your request for extension of time limits under your permit.

You have already applied for an extension of time on 9/8/97, because of the making of new administrative rules we have not yet processed that request. It is not necessary to apply again or pay the \$100 fee again. We will keep your request and refund the \$100 fee to you. The commission has adopted the new rules and we will be processing your request for extension.

If you have questions please contact me at the address below or phone 1-800-624-3199 ext. 272.

Sincerely,

Dallas Miller  
Natural Resource Specialist 2

cc: Watermaster Dist 11

*A refund  
will be  
mailed  
to you  
shortly.*

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**JUL 25 2008**

**WATER RESOURCES DEPT  
SALEM, OREGON**





# W&H PACIFIC

920 S.W. Emkay Dr., Suite C-100  
Bend, Oregon 97702

November 24, 1998

Mr. Dallas Miller  
Oregon Water Resources Department  
158 12th Street NE  
Salem, OR 97310-0210

**RE: Eagle Ridge Development Corporation  
Permit G-11762  
OWRD Application No. G-12905  
Permit Extension Application  
WHP File No. 526-0105**

Dear Dallas:

The referenced quasimunicipal permit for Eagle Crest was issued on May 31, 1994. Construction was initiated to perfect the permit and the standard Form A was submitted on June 6, 1995. Extension requests were filed with your department for the completion of construction on September 3, 1997 and September 30, 1998. Although these extension applications are pending, the term of the extension was not clear. The following summary and attached application for extension of time are intended to replace the pending extension request.

Eagle Crest has made significant progress in perfecting the quasimunicipal permit. Three groundwater wells have been constructed and placed in service. A 300,000 gallon storage reservoir has been completed, together with miles of water distribution piping to serve the development. Approximately 500 homesites, in the form of single family lots or multi-family lots/units, have been developed. An 18-hole golf course has been constructed and opened for play and significant progress has also been made on a second 18-hole golf course, with play expected in the summer of 2000. A large pool and recreation building have been completed, a sales office constructed, a golf course pro shop completed, golf course maintenance building occupied, and numerous homes and multi-family units completed.

Although significant progress has been made in perfecting the permit, additional time is required to complete the phased development for this large scale resort project. Development at Eagle Crest has proceeded at a rapid pace, but even at this pace, additional years are required for the approximately 1200 units approved for the project. Eagle Crest respectfully requests a 10 year extension to complete the construction of works and/or the purchase and installation of the equipment necessary to use the water. This 10 year time period will allow Eagle Crest to complete the installation of golf course irrigation systems, landscape irrigation systems, the distribution system to serve development and generally complete the phased development of Eagle Crest. The phased development is fully dependent upon market demand for the Eagle Crest residential inventory, which is impossible to predict. We believe the 10 year timeframe is reasonable, particularly with the significant progress already made in perfecting the referenced permit.

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**JUL 25 2008**

**WATER RESOURCES DEPT  
SALEM, OREGON**





November 24, 1998

Page 2

Please consider my request and never hesitate to contact me if you have questions or needs for additional information. This water right permit is critical to Eagle Crest and we do not want to jeopardize the permit right in any way. Thank you for your assistance.

Very Truly Yours,

**W&H PACIFIC, INC.**

Thomas A. Walker, P.E., C.W.R.E.  
Vice President

Cc: Alan VanVliet

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**JUL 25 2008**

**WATER RESOURCES DEPT  
SALEM, OREGON**





# Oregon

John A. Kitzhaber, M.D., Governor

## Water Resources Department

Commerce Building  
158 12th Street NE  
Salem, OR 97310-0210  
(503) 378-3739  
FAX (503) 378-8130

April 27, 1999

EAGLE RIDGE DEVELOPMENT CORP.  
WILLIAM LYCHE  
PO BOX 1215  
REDMOND, OR 97756

REFERENCE: File G 12905

Dear Mr. Lyche:

Regarding your extension request of permit G 11762, we need some more information.

Your request shows 1350 gpm being used under this permit. That is all the water allowed under this permit. If you are using the limit, we would not have any basis for extending the time, you should report full use and submit the Final Proof survey.

Please advise me if that amount you reported is the correct peak use.

If you have questions please contact me at the address below or phone (503)378-3739 ext. 272.

Sincerely,

A handwritten signature in cursive script, appearing to read "Dallas Miller".

Dallas Miller  
Water Rights Specialist

cc: Watermaster, District 11

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WATER RESOURCES DEPT  
SALEM, OREGON





# Oregon

John A. Kitzhaber, M.D., Governor

## Water Resources Department

Commerce Building  
158 12th Street NE  
Salem, OR 97310-0210  
(503) 378-3739  
FAX (503) 378-8130

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MAY 10 1999

W & H PACIFIC, INC.

May 4, 1999

THOMAS WALKER  
W&H PACIFIC  
920 SW EMKAY DR, SUITE C-100  
BEND, OR 97702

REFERENCE: File G 12905

Dear Mr. Walker:

Regarding your letter of May 4, 1999, I will try to clarify the permit requirements. If the peak use during the year is 1350 gpm under permit G 11762, then the quantity of water has been completely applied and an extension of time would not be necessary or possible. Because the permittee cannot exceed the permit limits.

If you are using 1350 gpm at peak use during the year then you should report full use and submit a final proof survey. We want the amount of water actually put to use, not the system capacity or the amount used in a test.

If that much water (1350 gpm) is not being used then you can send us a revised amount that is the amount actually used, and we can process the extension. A permit is limited by the amount of water allowed, it cannot be expanded even if all the area is not yet built. If the full amount is in use another permit should be applied for.

If you have questions please contact me at the address below or phone (503)378-3739 ext. 272.

Sincerely,

Dallas Miller  
Water Rights Specialist

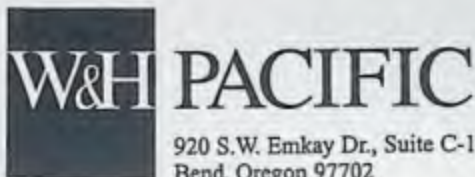
cc: Watermaster, District 11, Eagle Ridge

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JUL 25 2008

WATER RESOURCES DEPT  
SALEM, OREGON





920 S.W. Emkay Dr., Suite C-100  
Bend, Oregon 97702

**FAXED**  
5-4-99

May 4, 1999

Mr. Dallas Miller  
Water Rights Specialist  
Oregon Water Resources Department  
Commerce Building  
158 12th Street NE  
Salem, OR 97310-0210

**RE: Eagle Ridge Development Corporation**  
**OWRD File No. G-12905**  
**Permit No. G-11762**  
**WHP File No. 526-0105**

Dear Dallas:

Thank you for your review of the Eagle Crest extension request for the referenced quasimunicipal permit. You suggested the permit may have been perfected and no extension is required. I believe Eagle Crest would prefer your position, but I do have several questions.

Eagle Crest has constructed source facilities, with a capacity equal to that allowed under the permit. On a resort project, the full source capacity is often required relatively early in the development to assure adequate fire protection and full service under instantaneous demands. However, our water distribution system is not fully constructed. Large segments of raw land remain within the resort boundaries, where water mains and services have not been extended.

Even though our wells are constructed, they may operate at capacity only during emergency conditions. As the resort grows, the hours of operation for the wells will grow steadily.

If Eagle Crest proceeded with a final proof survey, we could document well capacity in conformance with the permit allowance. We could not demonstrate that water service has been provided for all lands within the resort boundary. Has our quasimunicipal permit been fully perfected? Could we continue to extend the water distribution system, continue to increase the volume of water consumption, and generally continue to expand the water system into undeveloped lands, even if the final proof survey were completed at this time?

Your assistance on the Eagle Crest water right is greatly appreciated. Your help with these questions will allow us to make a good decision and proceed with the right choice on the perfection of our rights.

Very Truly Yours,

**W&H PACIFIC, INC.**

Thomas A. Walker, P.E., C.W.R.E.  
Vice President

Cc: Alan VanVliet  
William D. Lyche

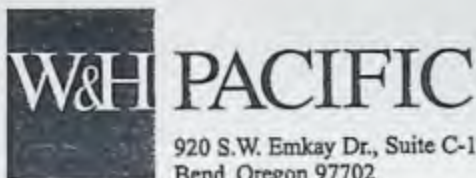
**RECEIVED**

**JUL 25 2008**

**WATER RESOURCES DEPT  
SALEM, OREGON**







920 S.W. Emkay Dr., Suite C-100  
Bend, Oregon 97702

May 13, 1999

Mr. Dallas Miller  
Water Rights Specialist  
Oregon Water Resources Department  
Commerce Building  
158 12th Street NE  
Salem, OR 97310-0210

RE: Eagle Ridge Development Corporation  
OWRD File No. G-12905  
WHP File No. 526-0105

Dear Dallas:

Thank you for your review of the Eagle Crest extension request for the referenced quasimunicipal permit. I have compiled responses to your questions and clarified the status of our source development. Your assistance and clarifications have been very helpful.

Eagle Crest has constructed source facilities, with a capacity equal to that allowed under the permit. We do not however utilize that full capacity on a regular basis. That full capacity is intended to assure an adequate flow rate in the case of wild fire or similar emergency. I have utilized our August 1998 total well water consumption to estimate our current use. In August, only two of our three wells were pumped. The quasimunicipal consumption is equivalent to  $\pm 540$  gpm, averaged over an entire month. That flow rate is approximately 40% of the flow rate authorized by the referenced permit.

Based upon these calculations and your clarifying correspondence and phone comments, it appears that Eagle Crest should proceed with the extension application. Although source facilities have been constructed, we have not yet beneficially utilized that capacity on a regular basis. Also, the water distribution system has not yet been extended to all lands within the service area.

Thank you again for your significant assistance. Please never hesitate to contact me if you have questions or need additional information.

Very Truly Yours,

W&H PACIFIC, INC.

Thomas A. Walker, P.E., C.W.R.E.  
Vice President

Cc: Alan VanVliet

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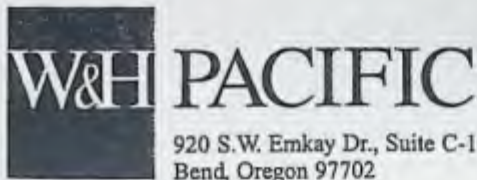
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JUL 25 2008

WATER RESOURCES DEPT  
SALEM, OREGON







920 S.W. Emkay Dr., Suite C-100  
Bend, Oregon 97702

September 7, 1999

Mr. Dallas Miller  
Oregon Water Resources Department  
158 12th Street NE  
Salem, OR 97310-0210

**RE: Eagle Ridge Development Corporation  
Permit G-11762  
OWRD Application No. G-12905  
Permit Extension Application  
WHP File No. 526-0105**

Dear Dallas:

On November 24, 1998, I submitted a permit extension application for the referenced Eagle Crest water right. Concurrently, I submitted an extension application for another Eagle Crest irrigation right. The Eagle Crest irrigation right has been processed and the extension granted. I have not however received any notices nor indications on the requested extension for Permit G-11762.

I am eager to provide additional information or assist you in any way possible in the consideration of our permit extension. Please let me know if there is anything I can do to help in this matter. Also, a quick status report would be very helpful for Eagle Crest.

Thank you very much for your continuing assistance.

Very Truly Yours,

**W&H PACIFIC, INC.**

A handwritten signature in cursive script, appearing to read 'Tom Walker'.

Thomas A. Walker, P.E., C.W.R.E.  
Vice President

Cc: Alan VanVliet

90799taw.doc

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**WATER RESOURCES DEPT  
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**W&H PACIFIC**

920 S.W. Emkay Dr., Suite C-100  
Bend, Oregon 97702

September 28, 1999

Mr. Dallas Miller  
Oregon Water Resources Department  
158 12th Street NE  
Salem, OR 97310

**RE: Eagle Ridge Development Corporation  
Groundwater Permit No. G-11762  
OWRD File No. G-12905  
WHP File No. 526-0105**

Dear Dallas:

The referenced groundwater permit for the Eagle Crest Resort specifies deadlines for completion of construction and complete application of water to a beneficial use. Eagle Crest has submitted multiple extension applications, with the most recent being in November 1998. We provided additional information on May 4<sup>th</sup>, 1999 and May 13, 1999, and understood the extension application would be processed. We have received no response on the pending extension application. Does Eagle Crest need to take any additional action before October 1 of this year?

Eagle Crest can not and will not jeopardize its water rights. The referenced water right is critical to resort operations. Eagle Crest is eager to prepare any necessary forms or applications and follow-up in any appropriate manner. At this point, we are not certain of the proper action. Again, your review and comments will be greatly appreciated.

Very Truly Yours,

**W&H PACIFIC, INC.**

Thomas A. Walker, P.E., C.W.R.E.  
Vice President

Cc: Alan VanVliet

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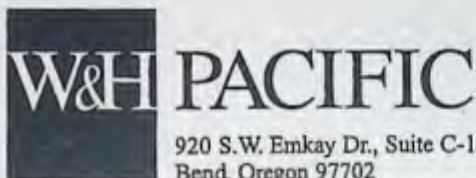
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**WATER RESOURCES DEPT  
SALEM, OREGON**







920 S.W. Emkay Dr., Suite C-100  
Bend, Oregon 97702

October 16, 2000

Mr. Dallas Miller  
Oregon Water Resources Department  
158 12th Street NE  
Salem, OR 97310

**RE: Eagle Ridge Development Corporation  
Groundwater Permit No. G-11762  
OWRD File No. T-12905  
WHP File No. 526-0105**

Dear Dallas:

The referenced groundwater permit for the Eagle Crest Resort specifies deadlines for completion of construction and complete application of water to a beneficial use. Eagle Crest has submitted multiple extension applications, with the most recent being in November 1998. We provided additional information on the extension application in May of 1999, but we have received no response on the pending extension application. Please advise me if Eagle Crest needs to take any additional action to protect the groundwater permit.

You and I spoke briefly in October of 1999 about the pending Eagle Crest extension application. You indicated the Water Resources Department was working through a back log of extension applications and no further action was required. The referenced water right is critical to the resort operations and Eagle Crest can not jeopardize these water rights. Eagle Crest is eager to prepare any necessary forms or applications and follow-up in any appropriate manner. Unless I hear otherwise, I will conclude our 1998 extension application adequately protects the Eagle Crest groundwater permit, until some notice of extension processing is received.

Thank you very much for your review and assistance.

Very Truly Yours,

**W&H PACIFIC, INC.**

A handwritten signature in cursive script that reads 'Tom Walker'.

Thomas A. Walker, P.E., C.W.R.E.  
Vice President

Cc: Alan VanVliet

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**JUL 25 2008**

**WATER RESOURCES DEPT  
SALEM, OREGON**







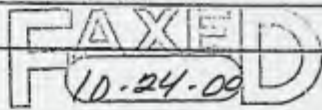
920 SW Emkay, Suite C100  
Bend, Oregon 97702

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Fax (541) 388-4229

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♦ Engineering ♦ Landscape Architecture

## CONVERSATION RECORD

|                                                                           |                                                                                           |
|---------------------------------------------------------------------------|-------------------------------------------------------------------------------------------|
| Conversation with: Mr. Dallas Miller<br>Oregon Water Resources Department | Date: October 20, 2000                                                                    |
| Distribution: Alan VanVliet                                               | Time:  |
| Phone Number:                                                             | Type: <input checked="" type="checkbox"/> Telephone <input type="checkbox"/> Direct       |
| Project: Eagle Crest II                                                   | By: Thomas A. Walker, P.E.                                                                |
| Job Number: 526-0105                                                      |                                                                                           |
| Subject: Water Rights<br>Pending Extension Application                    | Action Required: <input type="checkbox"/> Yes <input type="checkbox"/> No                 |

### Notes:

A few days ago, I sent a letter to the Oregon Water Resources Department reminding them of a pending application for extension of a water right permit for Eagle Crest II. The letter documented the 1998 application, and annual contact with the Oregon Water Resources Department to confirm Eagle Crest water rights are not jeopardized.

Dallas Miller explained no water right extension applications are being processed in the Deschutes Basin. Dallas has been instructed not to process any extension applications.

In response to my questions, Dallas Miller indicated he is aware of no action Eagle Crest could take to better protect existing water rights or to gain any action on a water right extension application. I explained Eagle Crest is continuing to perfect the water right permit. Dallas Miller agreed Eagle Crest has full authority to perfect the permit. Dallas clarified the OWRD is not restricting perfection under permits, even though no action has been taken on extension applications.

I asked Dallas about the worst case scenario for Eagle Crest. Under the worst case scenario, Eagle Crest would be denied an extension. Under this worst case scenario, the final proof survey would be limited to the degree of perfection that had been accomplished at the permit expiration date. I suggested that Eagle Crest has a quasimunicipal permit, and well pumps were installed to provide fire protection flow rates very early in the development. Eagle Crest could make a case that the permit was perfected to the full allocation of the permit, regardless of the expiration date.

Dallas suggested I contact Steve Brown at extension 263 if Eagle Crest needed a response to the question of perfection or needed additional information on the pending extension application. Dallas was very cordial and helpful and reiterated his comment that Eagle Crest has done everything possible to protect their water rights.

102300tw.doc

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**JUL 25 2008**

**WATER RESOURCES DEPT  
SALEM, OREGON**



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## TRANSMITTAL

To: Ms. Lisa J. Juul  
Water Rights Specialist  
Company: Oregon Water Resources Department  
Address: 158 12<sup>th</sup> Street NE  
City/State: Salem, OR 97301-4172  
Phone:  
Fax:

Date: January 23, 2003  
Project Number: 30036  
Project Name: Eagle Crest Resort  
Re: Cline Butte Utility Company  
Water Right Extension Application  
Permit #: G-11762

From: Thomas A. Walker, P.E., C.W.R.E.

Phone: (541) 388-4255

Fax: (541) 388-4229

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**We are sending:**

☒ Attached

☐ Facsimile

# Of Pages Including Cover

**These Are Transmitted:**

☐ For Your Info/File

☒ As Requested

☒ For Review & Comment

**Copied To:**

Alan VanVliet

| Copies | Description                                                                       |
|--------|-----------------------------------------------------------------------------------|
| 1      | Executed Application For Extension of Time                                        |
| 1      | Burden of Proof Statement in Support of the Extension of Time Application         |
| 1      | Well Logs, Permit, Development Maps, and Domestic Water Supply System Master Plan |

Lisa,

Thank you for your assistance on the pending water right extension application for the Eagle Crest resort. As noted in our initial extension application from 1997 and subsequent correspondence, the referenced water right is critically important to Eagle Crest. This application is intended to meet all needs for an extension and protect the Eagle Crest water right. Please contact me immediately if you have any questions or concerns.

Civil and Structural Engineering ♦ Landscape Architecture  
Planning ♦ Surveying and Mapping

Washington ♦ Oregon ♦ Idaho

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**WATER RESOURCES DEPT  
SALEM, OREGON**



**APPLICATION FOR EXTENSION OF TIME**  
**for Quasi-Municipal and Municipal Water Use Permits**

**TO THE WATER RESOURCES DIRECTOR OF OREGON**

I, Eagle Ridge Development Corporation Jerol Andres, President  
NAME OF ENTITY NAME OF CONTACT

P.O. Box 1215 Redmond, OR 97756  
ADDRESS CITY STATE ZIP PHONE

owner of record, or duly authorized agent, of Application No. G-12905, Permit No. G-11762,  
do hereby request that the time in which to:

☒ complete the construction of diversion/appropriation works and/or purchase and installation of  
the equipment necessary to the use of water, which time now expires on October 1, 1997,  
be extended to October 1, 2012,

and/or the time in which to:

☒ accomplish beneficial use of water to the full extent under the terms of the permit, which time  
now expires on October 1, 1998, be extended to October 1, 2012.

**NOTE:** Permit extensions for Quasi-Municipal and Municipal permits are evaluated under OAR Chapter 690, Division 315. Except under limited circumstances, upon issuance of an order approving an extension, you will be required to submit within 3 years a Water Management and Conservation Plan (WMCP) under OAR Chapter 690, Division 86. Diversion of water beyond the maximum rate currently diverted under the permit shall only be authorized upon approval of your WMCP. The rules may be viewed at: "[www.wrd.state.or.us/law/oar1999.shtml](http://www.wrd.state.or.us/law/oar1999.shtml)"

Attached are instructions to assist you in completing the information on the permit extension application form. Oregon Water Law and Administrative Rules require this information to be considered by the Water Resources Department when reviewing a Quasi-Municipal or Municipal water use permit extension application. For each permit, a separate extension application must be submitted. All items must be addressed or the application may be returned. Please feel free to provide the Department with any additional information or evidence that will aid us in making our decision. Please use additional sheets of paper as needed to fully respond to the questions.

After reviewing the application form and the instruction sheet, if you have any questions, you may contact the Department at (503) 378-3739, and request assistance from the Water Rights Division, permit extensions personnel.

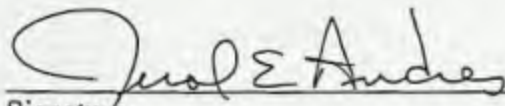
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**JUL 25 2008**



11. A summary of the plan and schedule to complete construction and/or perfect the water right.
12. Justification for the time requested to complete the project and/or apply the water to full beneficial use.
13. Any other information you wish the Department to consider while evaluating the extension of time application.

I am the permittee, or have authorization from the permittee, to apply for an extension of time under this permit. I certify that the information I have provided in this application is true and correct to the best of my knowledge.

  
Signature

\_\_\_\_\_  
Date

MAIL COMPLETED APPLICATION and STATUTORY FEE (under ORS 536.050) TO:

WATER RIGHT PERMIT EXTENSIONS  
WATER RESOURCES DEPARTMENT  
158 - 12<sup>th</sup> STREET NE  
SALEM, OREGON 97301-4172



**APPLICATION FOR EXTENSION OF TIME  
FOR QUASI-MUNICIPAL WATER USE  
CLINE BUTTE UTILITY COMPANY  
OREGON WATER RESOURCES DEPARTMENT PERMIT #G11762  
OREGON WATER RESOURCES DEPARTMENT APPLICATION FILE #G12905  
JANUARY 14, 2003**

**Narrative:**

Cline Butte Utility Company has provided the following information for the Oregon Water Resources Department to evaluate an extension of time request for quasi-municipal water use permit #G-11762. In the following paragraphs, the criteria for evaluation of an extension, as established by the Oregon Water Resources Department, are shown in bold text. The response and justification follow in standard text.

Permit G-11762 serves the Ridge at Eagle Crest (Eagle Crest II) through a water distribution system owned and operated by the Cline Butte Utility Company. The Cline Butte Utility Company is a subsidiary of the developer, Eagle Crest, Inc. the Eagle Crest destination resort consists of three major expansion areas. Regardless, this extension request is limited to permit G-11762 and Eagle Crest II.

**I. The Appropriate fee, as specified under ORS 536.050.**

A check in the amount of \$100.00 was submitted on September 3, 1997. The Oregon Water Resources Department (OWRD) web site confirms the appropriate fee remains at \$100.00. No further payment is necessary.

**II. For Quasi-Municipal water use permits, evidence of the actions taken to begin actual construction on the project, if required under the applicable statute.**

Permit G-11762 allows the development and perfection of water use from up to three wells. Construction of the initial well was initiated on September 18, 1991 and completed on October 11, 1991. Construction of a second well was initiated on January 20, 1992 and completed on February 20, 1992. Construction of the third well was initiated on March 19, 1998 and completed on April 22, 1998. Well logs were filed with the Oregon Water Resources Department for all three wells and document initiation of construction in conformance with the permit. Copies of the well logs are attached.

**III. Evidence of actions taken to develop the right within the permitted time frame and/or time period of the previous extension.**

An extension application was filed on September 3, 1997. Multiple letters and telephone conversations document prudent responses and follow up on the extension application by the applicant.

As noted in the September 3, 1997 extension application, Eagle Crest had constructed two wells by 1997. 50 HP and 300 HP pumps were installed in the wells, well house improvements had been completed, a 300,000 gallon storage reservoir had been constructed, and miles of water distribution piping had been installed. Approximately 350 homesites, numerous recreational and

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SALEM, OREGON**



commercial facilities, an 18-hole golf course, recreation center, pro-shop, hotel expansion, conference center, and sales office had been completed by 1997.

Between 1997 and 2002, Eagle Crest, Inc. continued development of resort properties. Development is not yet complete and infrastructure not yet extended to all future homesites within the service area. However, development is substantially complete. Nearly 1,000 residential units or homesites have been developed to date, including the extension of a water distribution system and standard infrastructure to these homesites. A third well, including pump, well house improvements, valves, and electronic controls have been completed. A copy of the address map for the Ridge at Eagle Crest (Eagle Crest II) is enclosed to document development progress.

**IV. Evidence of compliance with conditions contained in the permit and any previous extension(s). If any of the conditions have not been satisfied, please explain the reasons why.**

A copy of permit G-11762 is attached. Permit conditions include well construction standards, which are documented on the attached well logs.

Appropriate water meters have been installed on each of the three wells and a complete record of water use maintained on a monthly basis. Annual reports of water use have been submitted regularly to the Oregon Water Resources Department.

Air lines have been installed to allow static and pumping water level measurements on a regular basis. Static water level measurements have been reported to the Oregon Water Resources Department on an annual basis for all Eagle Crest wells.

To the very best knowledge of the applicant, all water use has been efficient as measured by the standard of the industry, without waste. In addition, all appropriate land use approvals are in place and water use is considered if full compliance with land use goals and the local acknowledged land use plan.

**V. Evidence of the maximum rate of water delivered to date, if any, for Quasi-Municipal or Municipal purposes.**

The three wells constructed at Eagle Crest are typically utilized in a lead/lag control configuration to meet multiple and varying water demands. Each of the three wells have been designed and constructed to supplement irrigation water supplies, domestic water supplies, and/or fire protection systems. Automatic controls set fire protection and domestic use as the highest priority.

The design capacity for each of the three wells, under the lowest anticipated discharge head, and therefore the highest discharge rate, are noted below:

Well #6: 160 gpm  
Well #7: 370 gpm  
Well #8: 820 gpm  
Estimated Maximum Discharge: 1,350 gpm

Eagle Crest has constructed source facilities with capacity equal to that allowed under the permit. Eagle Crest has not yet utilized that full capacity on a regular basis.

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**VI. An estimate of the population served under this permit and a description of the methodologies used to make this estimate.**

Eagle Crest, Inc. can only estimate the population, based upon the number of constructed dwellings and a rough projection of the average family size visiting the resort. Eagle Crest has confirmed that resort populations vary dramatically from day to day and month to month throughout the year. Occupancy rates are much higher in the summertime and typically much lower in the spring and fall. Regardless, our best estimate of the population served is based upon 490 constructed residential dwellings and an average population per unit of 3.5 people, resulting in a rough estimate of 1,715 people for the current Eagle Crest II population. The population estimate would apply only during full occupancy during the peak season of the year.

**VII. A description of the financial expenditures made toward completion of the water development.**

The following table provides a rough estimate of the capital expenditures associated with the construction and improvement of wells, installation of water distribution system piping, and construction of the storage reservoir.

**ESTIMATED CONSTRUCTION VALUE OF THE EXISTING EAGLE CREST II  
WATER SUPPLY AND DISTRIBUTION SYSTEM**

|                                                    |             |
|----------------------------------------------------|-------------|
| 1. Well #6                                         | \$150,000   |
| 2. Well #7                                         | \$300,000   |
| 3. Well #8                                         | \$350,000   |
| 4. 11 Miles of 6" to 12" Water Distribution Piping | \$2,300,000 |
| 5. 300,000 Gallon Storage Reservoir                | \$150,000   |
| 6. Estimated Totals                                | \$3,150,000 |

**VIII. An estimate of the cost necessary to complete the water development.**

As noted, the water supply and distribution system for Eagle Crest II is substantially complete. Approximately 5,000 lineal feet (LF) of water distribution system remain to be constructed within currently undeveloped sections of the resort. The estimated cost of the water distribution system, including mainlines, valves, fire hydrants, water services, and related appurtenances is \$200,000. This cost estimate is based upon a typical unit price of \$40.00 per LF.

**IX. A summary of any events that delayed completion of the water development or application of water to full beneficial use, including other governmental requirements, if any, relating to the project, that have significantly delayed completion of construction or perfection of the right.**

Eagle Crest, Inc. is obligated to obtain numerous local, state, and federal reviews and approvals in the course of resort development. Although approvals have been appealed and delayed under land use regulations, no significant delays have been incurred since the issuance of permit G-11762. Rather, buildout of Eagle Crest is based upon market conditions and the related significant complexities of community development. Completion of the water distribution system and perfection of the water right are dependent upon market demand and the associated buildout of the resort. The rate and extent of development are beyond the control of the applicant.

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- X. An estimated demand projection and a description of the methodologies used for the subject water right permit, considering the other water rights and contracts held by the municipal or quasi-municipal water use permit holder, and a date by which the water development is anticipated to be completed and water put to full beneficial use.
- XI. Extension requests for greater than 50 years must include documentation that the demand projection is consistent with the amount and types of lands and uses proposed to be served by the permit holder.

Development at Eagle Crest is regulated by Deschutes County land use codes and associated State of Oregon land use goals. The land use approvals for Eagle Crest stipulate a maximum number of units. Eagle Crest, Inc. has utilized the land use stipulations to prepare a water supply system master plan, projecting the ultimate water demand for the resort, including all water supplies. The water supply system master plan has been updated on a regular basis, with the most recent being July 2002. A copy of the master plan update is attached.

The Eagle Crest water master plan estimates 985 equivalent dwelling units at full buildout of the Ridge at Eagle Crest (Eagle Crest II). The peak day domestic consumption for Eagle Crest II is estimated at 1.2 million gallons, with a source requirement of 855 gpm. Because domestic use is subject to significant peaks during the day, a peak instantaneous demand is estimated at 2,138 gpm. In addition, a peak landscape irrigation requirement of 1,780 gpm is estimated for Eagle Crest II. Eagle Crest, Inc. analyzed all water rights and concluded the permit allowance of 3.0 cubic feet per second (1,350 gpm) under permit G-11762, together with all other water rights, is adequate to meet the long-term demand of the resort at buildout.

Water consumption per dwelling unit at Eagle Crest, Inc. is based upon historical water consumption on metered accounts for previously developed sections of the resort. Similarly, irrigation water demand is based upon historical consumption, primarily on irrigated golf course turf. Eagle Crest, Inc., as documented in the water system master plan, recognizes that weather conditions, project populations, occupancy rates, water conservation, and numerous other factors can affect water demand and required source capacity. The very best information, utilizing standards of the engineering profession, conclude that the constructed source facilities, with capacity equal to that allowed under the permit, are expected to meet the ultimate demand for the project.

Ultimate buildout of the resort is subject to market demand and market conditions that are outside of the control of the applicant. A projection of historical lot sales suggests that the resort will approach buildout in the years 2008 to 2012. Eagle Crest, Inc. initially requested an extension of time until 2008. The current extension application requests that completion requirements be extended to the year 2012.

- XII. A summary of the plan and schedule to complete construction and/or perfect the water right.

Eagle Crest, Inc. has completed land use master plans, which include preliminary designs for residential units and the associated infrastructure. In addition, water supply system master plans have been completed and updated, providing the plan and schedule for construction of water facilities and the perfection of water rights. These documents have been submitted to the Oregon Health Division and the Deschutes County Planning Department. Copies of these documents can be provided upon request.

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SALEM, OREGON



Generally, buildout of the Eagle Crest resort will occur in phases to match market demand. Projection of historical sales data suggest the water right will be fully perfected by the year 2012.

**XIII. Justification for the time requested to complete the project and/or apply the water to full beneficial use.**

As noted, the development of Eagle Crest is fully dependent upon market demand and conditions that are outside of the applicant's control. Eagle Crest, Inc. must develop in a reasonable manner, under conditions and time frames that are economically viable. None of these conditions can be projected or estimated accurately, because of ever changing market conditions. Historical absorption of Eagle Crest inventory suggests buildout will occur between the years 2008 and 2112. A 10-year extension is requested, to best comply with these broad estimates and projections. If buildout occurs prior to the 10-year extension request, then final proof surveys can be completed at that time.

**XIV. Any other information you wish the department to consider while evaluating the extension of time application.**

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# Oregon

John A. Kitzhaber, M.D., Governor

**Water Resources Department**

Commerce Building  
158 12th Street NE  
Salem, OR 97301-4172  
(503) 378-3739  
FAX (503) 378-8130

**DEAR EXTENSION APPLICANT**

The Water Rights Section has received your application for an extension of time for PERMIT # G-11762 FILE # G-12905. Your application will be reviewed in the near future. Following the review, you will receive a Proposed Final Order either approving or rejecting the extension. A 45 day protest period begins upon issuance of the Proposed Final Order. After the protest period, a Final Order is issued.

If you have questions, please phone our Water Rights Information Group at (503) 378-8455, extension 201. For general information, our Department Internet home page is accessible at [www.wrd.state.or.us](http://www.wrd.state.or.us).

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**WATER RESOURCES DEPT  
SALEM, OREGON**





920 SW Emkay, Suite C100  
Bend, Oregon 97702-1041  
541.388.4255  
Fax 541.388.4229

April 2, 2004

Ms. Lisa Juul  
Oregon Water Resources Department  
725 Summer St. N.E., Suite A  
Salem, OR 97301-2430

**RE: Eagle Crest Resort  
Cline Butte Utility Company  
OWRD Permit No. G - 11762  
OWRD Permit No. G - 12905  
WHP File No. 31250.1001**

Dear: Lisa

Thank you very much for your review and assistance on water rights for the Eagle Crest Resort. An extension request is pending for Permit No. G - 11762, however you recommend a final proof survey. Cline Butte Utility Company has authorized me to proceed with the final proof survey, as you recommend.

The extension application was filed for Permit No. G - 11762 because the quasi-municipal water distribution system is not fully developed. Wells have generally been constructed to their full capacity, although the ultimate water consumption has not been accomplished because the resort is still developing and growing.

You carefully considered our situation with your colleagues and determined a final proof survey is appropriate and the full capacity of the wells can be claimed in a final proof survey because the source facilities have been operated at full design capacity. Accordingly, Cline Butte Utility Company authorized me to proceed with the final proof survey.

The capacities of all source facilities will be confirmed and compared with permit allocations in the final proof survey process. Until the final proof survey is completed and confirmed, Cline Butte Utility Company, Inc. will maintain their pending extension application to assure no jeopardy to the water right.

Thank you again for your significant assistance. We will forward a final proof survey within the next few months or report any related questions or issues. Again, we appreciate your assistance and invite your questions and comments at any time.

Sincerely,  
W&H Pacific, Inc.

Thomas A. Walker, P.E., CWRE

Cc: Alan VanVliet

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SCALE: 1"=20'



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JUL 25 2008



10001

APPE-12905 and APPE-19057

USER-ID 29088

2007

Oregon Water Resources Department  
October 2007 through September 2008  
Annual Water Use - Monthly Quantities Form

2008

| Facility →<br>Report ID → | 30747<br>6 ✓ | 30748<br>7 ✓ | 30749<br>8 ✓ | 40185<br>9 ✓ |                                       |
|---------------------------|--------------|--------------|--------------|--------------|---------------------------------------|
| October - 2007            | 9,404,000    | 896,300      | 4,302,231    | 10,918,579   |                                       |
| November - 2007           | 2,072,000    | Ø            | 994,868      | 6,310,351    |                                       |
| December - 2007           | 928,000      | Ø            | 197,754      | 4,345,375    |                                       |
| January - 2008            | Ø            | Ø            | Ø            | 4,659,798    |                                       |
| February - 2008           | 826,000      | Ø            | Ø            | 4,287,797    | RECEIVED                              |
| March - 2008              | 1,252,000    | 384,300      | 549,458      | 5,170,806    | JAN 15 2009                           |
| April - 2008              | 16,788,000   | 2,101,500    | 7,342,977    | 9,072,960    | WATER RESOURCES DEPT<br>SALEM, OREGON |
| May - 2008                | 29,652,000   | 6,956,400    | 9,394,385    | 13,392,598   |                                       |
| June - 2008               | 27,785,000   | 9,523,100    | 13,620,917   | 27,443,704   |                                       |
| July - 2008               | 35,660,000   | 11,486,000   | 18,733,386   | 32,625,937   |                                       |
| August - 2008             | 30,735,000   | 8,815,200    | 14,958,255   | 30,415,961   |                                       |
| September - 2008          | 26,912,000   | 6,321,100    | 11,422,697   | 26,975,804   |                                       |
| Total *                   | 182,214,000  | 46,483,900   | 81,516,928   | 125,619,670  |                                       |

\* Describe the units of measurement as G (gallons), KG (thousand gallons), MG (million gallons), CF (cubic feet), MCF (million cubic feet), or AF (acre-feet)

Describe the method of measurement used: Flow Meter gallons. If used for irrigation, total number of acres irrigated: \_\_\_\_\_

I certify this information is true and accurate to the best of my knowledge.

Robert McDaniel  
Signature  
Robert McDaniel  
Name

Manager  
Title  
1230 Golden Pheasant Dr. Redmond, OR 97756  
Mailing Address

Clare Butte Utility Co.  
Reporting Entity

10-17-08  
Date  
541-504-2305 - op3  
Phone Number

Please complete and mail to: Oregon Water Resources Department; Water Use Reporting Program;  
725 Summer Street NE, Suite A; Salem, OR 97301-1266.



app 6-12905 and app 6-14057

29088

USER-ID 41-01478

2006

Oregon Water Resources Department  
October 2006 through September 2007  
Annual Water Use - Monthly Quantities Form

2007



| Facility<br>POD-ID | 34797<br>6 ✓ | 31298<br>7 ✓ | 30291<br>8 ✓ | 110105<br>9 ✓ |  |
|--------------------|--------------|--------------|--------------|---------------|--|
| October - 2006     | 7,739,000    | Ø            | 7,067,586    | 16,339,751    |  |
| November - 2006    | 1,307,000    | Ø            | 302,651      | 4,665,833     |  |
| December - 2006    | 888,000      | 1,200        | 162,460      | 6,603,717     |  |
| January - 2007     | 601,000      | Ø            | 4,312        | 5,956,204     |  |
| February - 2007    | 539,000      | Ø            | Ø            | 3,963,043     |  |
| March - 2007       | 3,742,000    | Ø            | 2,601,697    | 6,817,606     |  |
| April - 2007       | 10,262,000   | 2,349,100    | 9,461,693    | 15,954,964    |  |
| May - 2007         | 12,660,000   | 10,988,400   | 13,940,391   | 26,525,062    |  |
| June - 2007        | 18,754,000   | 7,920,400    | 14,804,244   | 36,964,198    |  |
| July - 2007        | 23,534,000   | 10,854,600   | 18,450,279   | 41,049,151    |  |
| August - 2007      | 31,708,000   | 10,435,200   | 15,878,159   | 32,030,888    |  |
| September - 2007   | 21,584,000   | 6,683,400    | 9,102,125    | 28,627,003    |  |
| TOTAL *            | 133,318,000  | 49,232,300   | 91,775,597   | 225,497,420   |  |

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WATER RESOURCES DEPT  
SALEM, OREGON

\* Describe the units of measure as G (gallons), KG (thousand gallons), MG (million gallons), CF (cubic feet), MCF (million cubic feet), or AF (acre-feet)

Describe method of measuring the water used: G. If use is irrigation, total number acres irrigated Ø.

I certify this information is true and accurate to the best of my knowledge.

Robert McDaniel  
Signature

Manager  
Title

Clive Butte Utilities Co.  
Reporting Entity

12-12-07  
Date

Robert McDaniel  
Name - Please Print

Please complete and mail to: Water Resources Department; Water Use Reporting Program;  
725 Summer Street NE, Suite A; Salem, OR 97301-1266.



appG-12905

appG-11387

user id: 8034 29098

QM use

**EAGLE CREST RESORT  
SUMMARY OF GROUNDWATER CONSUMPTION  
FOR CALENDAR YEAR 2002  
OWRD Permit No. G-11762 (File No.: G-12905)**

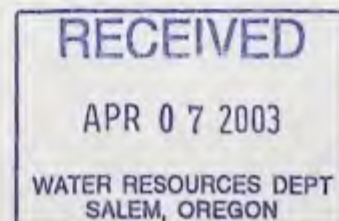
**TOTAL GALLONS**

| Month          | Well #2           | Well #3           | *Well #6           | *Well #7          | *Well #8           |
|----------------|-------------------|-------------------|--------------------|-------------------|--------------------|
| January        | 1,743,600         | 395,400           | 1,604,000          | 0                 | 0                  |
| February       | 1,735,500         | 500               | 1,459,000          | 590,600           | 0                  |
| March          | 2,817,100         | 3,689,800         | 8,753,000          | 190,400           | 1,858,448          |
| April          | 6,806,900         | 2,182,100         | 19,587,000         | 0                 | 6,777,932          |
| May            | 12,869,000        | 6,503,700         | 30,982,000         | 16,864,000        | 13,165,006         |
| June           | 12,340,700        | 12,537,200        | 32,584,000         | 9,782,500         | 16,485,753         |
| July           | 14,395,000        | 14,373,700        | 23,699,000         | 11,636,200        | 29,000,998         |
| August         | 14,380,500        | 14,388,200        | 19,562,000         | 8,747,400         | 26,350,709         |
| September      | 15,321,000        | 5,511,400         | 21,068,000         | 10,076,844        | 9,984,061          |
| October        | 9,872,000         | 319,000           | 16,717,000         | 0                 | 5,562,309          |
| November       | 1,636,000         | 0                 | 5,641,000          | 0                 | 337,641            |
| December       | 1,166,000         | 0                 | 2,772,000          | 0                 | 161,748            |
| <b>TOTALS:</b> | <b>95,083,300</b> | <b>59,901,000</b> | <b>184,428,000</b> | <b>57,887,944</b> | <b>109,684,605</b> |

\*Note: Total well production is reported for Eagle Crest II Wells #6, #7, and #8. Water use is appropriated under Permit G-11762 and G-11313.

well 1 - 36346  
well 2 - 36347  
well 3 - 36348

35888  
35889  
35890







# 2000

Oregon Water Resources Department  
October 2000 through September 2001  
Annual Water Use - Monthly Quantities Form

# 2001



614857

APP 12905

USER-ID 29088

C6UC

| Facility  | Well # 6     | Well # 7    | Well # 8     |                        |        |
|--------------------------------------------------------------------------------------------|--------------|-------------|--------------|------------------------|--------|
| POD-ID    | 601857 QM    |             |              |                        |        |
| October - 2000                                                                             | 13,646,000 G | 1,097,000 G | 4,915,200 G  |                        |        |
| November - 2000                                                                            | 3,012,000 G  | 0           | 622,900 G    |                        |        |
| December - 2000                                                                            | 1,525,000 G  | 0           | 0            |                        |        |
| January - 2001                                                                             | 1,503,000 G  | 0           | 0            |                        |        |
| February - 2001                                                                            | 1,121,000 G  | 0           | 217,436 G    | water turns brown June |        |
| March - 2001                                                                               | 9,180,000 G  | 0           | 2,926,151 G  | w/2001 rain avoided    |        |
| April - 2001                                                                               | 12,466,000 G | 0           | 3,966,575 G  | for 2001/2002          |        |
| May - 2001                                                                                 | 30,650,000 G | 2,907,100 G | 9,998,719 G  |                        | 7/1/02 |
| June - 2001                                                                                | 27,208,000 G | 8,175,200 G | 11,019,522 G |                        |        |
| July - 2001                                                                                | 31,324,000 G | 8,847,600 G | 15,784,995 G |                        |        |
| August - 2001                                                                              | 33,855,000 G | 6,503,800 G | 13,386,658 G |                        |        |
| September - 2001                                                                           | 26,738,000 G | 3,942,100 G | 13,002,382 G |                        |        |
| TOTAL *                                                                                    |              |             |              |                        |        |

\* Describe the units of measure as G (gallons), KG (thousand gallons), MG (million gallons), CF (cubic feet), MCF (million cubic feet), or AF (acre-feet)

Describe method of measuring the water used: Flow meter If use is irrigation, total number acres irrigated \_\_\_\_\_

I certify this information is true and accurate to the best of my knowledge.

Elie Van Vleet  
Signature

Dir of Const.  
Title

Clive Butte Utility Co  
Reporting Entity

1/29/02  
Date

WATER RESOURCES DEPT.  
SALEM, OREGON

FFR 012002

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Payable to: W&H Pacific, Inc.  
1000 1st Avenue, S.W., P.O. Box 1000  
Seattle, WA 98101  
Phone: (206) 461-1000

Payable to: 1000 1st Avenue Company  
P.O. Box 1000  
Seattle, WA 98101

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W&H PACIFIC, INC.

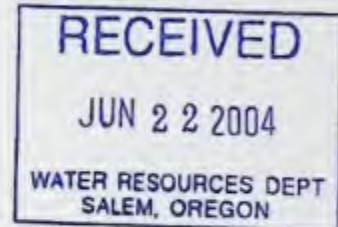
June, 2004

W&H Pacific, Inc. is a subsidiary of W&H  
PacifiCorp, Inc. and is not a separate entity.  
All payments should be made to W&H  
PacifiCorp, Inc., 1000 1st Avenue, S.W.,  
Seattle, WA 98101, Phone: (206) 461-1000.



**EAGLE CREST DESTINATION RESORT  
GROUND WATER APPROPRIATION  
CLAIM OF BENEFICIAL USE  
AND  
SITE REPORT  
UNDER PERMIT G-11762**

**June, 2004**



**Prepared For:  
Cline Butte Utility Company  
P.O. Box 1215  
Redmond, OR 97756**

**Prepared By:  
Thomas A. Walker, P.E., C.W.R.E.  
W&H Pacific, Inc.  
920 SW Emkay Drive, Suite C-100  
Bend, OR 97702**



**EAGLE CREST DESTINATION RESORT  
CLAIM OF BENEFICIAL USE AND SITE REPORT  
UNDER PERMIT G-11762**

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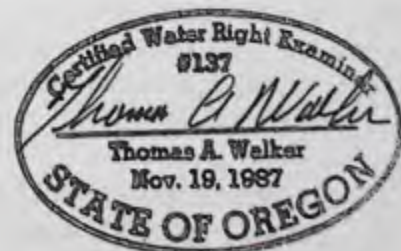
JUN 22 2004

WATER RESOURCES DEPT  
SALEM, OREGON

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Final Proof Survey Map  
Permit G-11762  
Permit Assignment Confirmation  
Well Logs  
October 18, 1991 Oregon Water Resources Department Correspondence on Well Location  
Original Application  
"Form A" Notice of Beginning of Construction  
April 14, 2004 W&H Pacific Static Water Level Report  
W&H Pacific Water Use Report  
Pump Test Data for Wells 6, 7, and 8  
Permit G-11313  
Domestic Water Distribution Plan  
Time Extension Correspondence



EXPIRES 6-30-2004



**EAGLE CREST DESTINATION RESORT  
CLAIM OF BENEFICIAL USE AND SITE REPORT  
UNDER PERMIT G-11762**



**NARRATIVE:**

Eagle Crest is an existing destination resort, located approximately one mile south of the Sisters-Redmond Highway, and approximately four miles westerly of Redmond, Oregon. Eagle Crest is located within Deschutes County.

The Eagle Crest destination resort includes single-family homes, multi-family residential units, restaurants, retail outlets, recreational facilities, golf courses, parks, significant lawns and landscaping, lakes and ponds, administrative offices, maintenance facilities, and many related facilities and appurtenances typical of a municipality. Eagle Crest is a sizable community with a current population estimated at 3,900 people in the peak summer season, and an ultimate summer population at full build out of over 6000 people.

The domestic water supply system includes an extensive piping network, providing service to approximately 1290 homesites or residential units in addition to the recreational and commercial facilities at the resort. Three groundwater wells serve the resort under Permit G-11762. Numerous other water rights also serve the Eagle Crest destination resort.

An extensive and separate underground irrigation system has also been constructed at the Eagle Crest destination resort. The three wells under Permit G-11762 serve domestic needs and irrigation needs. The irrigation water supply system includes a storage lake, underground mainline and lateral piping system, permanent set sprinklers, agricultural irrigation systems, and standard landscape irrigation systems. Well pumps and controls are designed to automatically meet the needs of both irrigation and domestic needs.

This claim of beneficial use and site report is limited to Permit G-11762 for quasi-municipal use at the Eagle Crest destination resort. The permit accommodates the use of three groundwater wells, referred to as wells 6, 7, and 8.

This claim of beneficial use and site report will describe existing components of the water supply system at the Eagle Crest destination resort, evaluate all conditions of the original permit that allow the use of water, and provide recommendations for the ultimate water right certificate. Under Oregon Water Law, the quantity of water allowed under the final water right certificate will be restricted to that allowed under the permit, or the amount of water beneficially utilized, whichever is less. In this case, Eagle Crest, Inc. has beneficially utilized water to the full extent allowed under the permit, and the limitation imposed by the permit shall also apply to the certificate.

**PERMITEE AND PROPERTY OWNER INFORMATION:**

The Permittee is the Eagle Ridge Development Corporation, a subsidiary of Eagle Crest, Inc. Permit G-11762 was assigned to Cline Butte Utility Company, another subsidiary company of Eagle Crest, Inc., in April of 2001. (Reference the attached exhibit).

As the Eagle Crest destination resort was developed, lots, residential units, and commercial buildings have been sold and many components of the project dedicated to the Eagle Crest Homeowner's Association. Regardless, Eagle Crest, Inc. remains the resort manager and operates the domestic and irrigation water supply systems through its subsidiary, Cline Butte Utility Company. Pertinent information for the Permittee is shown below:

Eagle Crest, Inc.  
P.O. Box 1215  
Redmond, OR 97756  
Phone: (541) 923-0807  
Contact: Alan VanVliet  
Development Manager

Cline Butte Utility Company  
1230 Golden Pheasant  
Redmond, OR 97756  
Phone: (541) 504-2305  
Contact: Ric Kuss  
Manager



## SOURCE:

The water source under Permit G-11762 is three groundwater wells, located at the Eagle Crest destination resort. Three separate wells, referred to as wells 6, 7, and 8 serve a broad range of water needs under a quasi-municipal use designation.

Well logs are attached for each well and describe the depth, lithology, bore diameter, casing diameter, well driller, and other related information. The location of the wells are noted on the final proof survey map, which is attached. Two of the three wells are in close proximity to the location noted on the permit. Well number eight is located approximately one quarter mile south of the permit location. An October 18, 1991 letter from the Oregon Water Resources Department (attached) addresses the location of wells 6, 7, and 8 under a separate and compatible irrigation water right and provides the applicant flexibility on well locations.

Well logs document water bearing zones at significant depth, in what is considered the Deschutes Formation. Water quality is excellent as demonstrated by years of chemical testing under the Oregon Health Division requirements for domestic water supplies.

## DIVERSION POINTS:

Attached well logs describe each of the three wells constructed under Permit G-11762. Each of the wells were constructed by Mr. Bryon Stadel, of STACO Well Services, Inc.

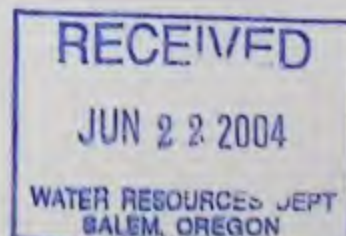
Information about each of the wells is summarized in the following table:

**WELL AND PUMP INFORMATION SUMMARY:**

| Well Number | Casing Diameter | Total Depth | Pump Type   | Pump Model        | Static Water Level from Original Well Log | Static Water Level from March 2004 | Well Construction Date |
|-------------|-----------------|-------------|-------------|-------------------|-------------------------------------------|------------------------------------|------------------------|
| 6           | 14 Inch         | 800 Ft.     | Turbine     | Goulds 12RJHC     | 518 Ft.                                   | 523 Ft.                            | 02/20/1992             |
| 7           | 6 Inch          | 800 Ft.     | Submersible | Berkley 6TP175    | 528 Ft.                                   | 523 Ft.                            | 10/11/1991             |
| 8           | 14 Inch         | 600 Ft.     | Turbine     | American 12-H-120 | 312 Ft.                                   | 312 Ft.                            | 04/22/1998             |

A well pump test was conducted for each of the three wells at the Eagle Crest Resort. Pump test information is attached as an exhibit. Available pump test information for well number seven includes a 15-minute standard pump test from 1991. In addition, well number seven was utilized as an observation well in the production drawdown testing for well number six. Because wells six and seven are approximately 30 feet apart and both completed to the same depth, no additional testing was conducted.

Each of the three well pumps have been designed and constructed to convey water to either the irrigation water supply system or the domestic water supply system. For example, the deep well turbine pump at Well #6 automatically pumps into the domestic water supply system whenever the storage reservoir signals for refilling. The relatively high head associated with the domestic water reservoir results in a discharge rate of approximately 450 gallons per minute into the domestic water system. Well #6 can also automatically discharge to a nearby irrigation storage lake. At an open discharge to the irrigation lake, well #6 can operate at approximately 1210 gallons per minute. The existing wells and well pumps divert water to the domestic system whenever the storage reservoir level is diminished, and also can divert water to the irrigation system at a much higher flow rate, again typically under fully automatic control.





Wells 6, 7, and 8 serve quasi-municipal water right permit G-11762 and permit G-11313 for irrigation and commercial uses. The production capacity of well pumps can equal the cumulative authorized diversion of both permits. Permits G-11762 and G-11313 are attached.

#### **PUMPS AND MOTOR:**

Pump, motors, and models are described in the prior table for each of the three wells. The three wells and associated well pumps have served the Eagle Crest destination resort effectively and reliably for many years. The well house design accommodates both irrigation and domestic needs typically under fully automatic operation.

For a groundwater appropriation claim of beneficial use, the most important condition is the discharge rate for each pump. Each of the three pumps operates on a regular basis into the domestic system and into the irrigation system. The quasi-municipal use designation on water right permit G-11762 encompasses a broad range of uses at the destination resort, including normal irrigation and standard domestic service. Therefore, the maximum pumping rate, applicable on the irrigation system, is appropriate for this claim of beneficial use.

W&H Pacific provided the design for each of the well pumps at the Eagle Crest destination resort and monitors water use and pump house records on a regular basis. Cline Butte Utility Company maintenance personnel typically record pumping rates on a regular basis. W&H Pacific has reviewed pumping records and summarized pumping rates while operating into the irrigation system, for use in establishing the maximum diversion rate under this claim of beneficial use. Actual pumping rates into the irrigation system are summarized for each well below.

**WELL PUMP  
TYPICAL MAXIMUM DIVERSION RATES**

| Well Number  | Discharge Rate   |
|--------------|------------------|
| 6            | 1210 gpm         |
| 7            | 260 gpm          |
| 8            | 1760 gpm         |
| <b>Total</b> | <b>3,230 gpm</b> |

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SALEM, OREGON

As noted earlier, a claim of beneficial use must document the maximum diversion rate allowed under the original water right permit and the diversion rate that represents actual beneficial utilization of water. The lesser of the two limits will be reflected on the water right certificate. In this case, the normal pumping rate far exceeds the maximum diversion rates stipulated in the quasi-municipal permit. Permit G-11762 authorized a maximum diversion of 3 CFS or 1347 gallons per minute. The cumulative pumping rates exceed the quasi-municipal limit imposed by the permit, so the maximum diversion rate for the final certificate will be limited by the permit condition of 3 CFS or 1,347 gallons per minute.

Following sections of this claim of beneficial use describe additional water rights applicable to wells 6, 7, and 8 which authorize the current diversion rates.

#### **PIPE:**

The following table documents the estimated total quantity of mainline domestic and irrigation piping at Eagle Crest, obtained from the project water system plan (attached). Construction record drawings for the irrigation system are not readily available. Golf course and grounds maintenance personnel however indicate mainlines follow fairways. I estimated approximately 45,000 lineal feet of 6 to 12 inch buried mainline have been installed for golf course and common area irrigation.

The following table includes the Eagle Crest II area of the resort only. As noted, Wells 6, 7, and 8 can serve the Eagle Crest I, II, and III areas of the resort and the entire resort is included in the area of use for permit G-11762. However, other wells and permits apply to Eagle Crest I and III also. Including pipe quantities for the Eagle Crest II area only will prevent double reporting on other final proof surveys.



**EAGLE CREST DESTINATION RESORT  
DOMESTIC WATER DISTRIBUTION SYSTEM**

| <b>Water Main Nominal Diameter</b> | <b>Estimated Lineal Feet</b> |
|------------------------------------|------------------------------|
| Two to Four Inch                   | 700                          |
| Six Inch                           | 2,200                        |
| Eight Inch                         | 31,600                       |
| Ten Inch                           | 14,900                       |
| Twelve Inch                        | 7,400                        |

**EAGLE CREST DESTINATION RESORT  
IRRIGATION WATER DISTRIBUTION SYSTEM**

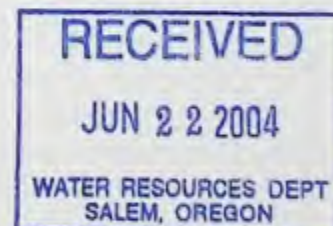
| <b>Water Main Nominal Diameter</b> | <b>Estimated Lineal Feet</b> |
|------------------------------------|------------------------------|
| Six to Twelve Inch                 | 45,000                       |

The domestic water supply system at the Eagle Crest Resort has not yet been extended to all areas of the resort. Development is still underway. Regardless, Eagle Crest was instructed to prepare this claim of beneficial use because the source facilities have been developed and utilized at their ultimate diversion rate. The attached correspondence from W&H Pacific under the time extension correspondence, describes the conversations and directions from the Oregon Water Resources Department regarding the appropriateness of this claim of beneficial use, even though the water distribution system is still subject to further expansion.

**USES:**

Water use at the Eagle Crest destination resort has generally been described as domestic and irrigation, which includes a multitude of uses. The following uses have been observed at the Eagle Crest destination resort.

- Domestic
- Commercial
- Irrigation
- Lake Maintenance
- Aesthetics and Golf Hazards
- Dust Control
- Fire Protection
- Livestock Watering
- Construction Watering
- Water System Maintenance, including flushing and testing
- Irrigation for Frost Control
- Out of Season Irrigation
- Agricultural Uses
- Maintenance Activities, including flushing, washing, and dust control
- Recreation, including Swimming Pools, Jacuzzi, Steam Rooms, Spas, Sport Center, etc
- Other uses typical and ordinary for a municipality



The place of use includes the boundaries of the Eagle Crest destination resort. The attached map of the Eagle Crest destination resort generally describes three separate expansion projects at the resort. The original resort development occurred easterly of the Cline Falls Highway and is generally referred to as Eagle Crest I. The Eagle



Crest destination resort was expanded to include the Eagle Crest II area, immediately west of the Cline Falls Highway, where wells 6, 7, and 8 are located. Wells 6, 7, and 8 primarily serve the Eagle Crest II expansion area, however water main extensions and connections allow wells 6, 7, and 8 to serve the Eagle Crest I area and the Eagle Crest III area.

Eagle Crest III is a recent expansion of the destination resort. Eagle Crest I, II, and III are served by the same off-site domestic water storage reservoir. Wells 6, 7, and 8 contribute directly to the domestic water storage reservoir and therefore can serve all of the lands within Eagle Crest I, II, and III.

The actual place of use, depicted by the exterior boundary of the Eagle Crest destination resort, is demonstrated on the attached final proof survey map.

The place of use includes areas not identified in the original application. The Eagle Crest III resort expansion was not contemplated at the time of the original application. A subsequent groundwater permit provides an additional supplemental source for the Eagle Crest water supply system (Reference permit G-13856). Similarly, prior groundwater permits G-10530 and G-10957 provide a water supply primarily for the Eagle Crest I area. Regardless, water from wells 6, 7, and 8 is delivered to the off-site domestic reservoir and serves all areas of the resort, and therefore the area of use includes the entire resort on the attached final proof survey.

#### ADDITIONAL WATER RIGHTS SERVING THE EAGLE CREST DESTINATION RESORT:

As noted, a number of water rights have been obtained for the Eagle Crest destination resort. Water rights are summarized in the following table. This claim of beneficial use is limited to Permit G-11762. However, a summary of additional water rights at the Eagle Crest destination resort helps to describe the overall water supply system and explain why pump capacities exceed permit G-11762 diversion rates. In most cases, each well accommodates multiple groundwater permits. Surface water permits are also appurtenant to portions of Eagle Crest and supplement the overall water supply system.

#### EAGLE CREST DESTINATION RESORT GROUNDWATER RIGHT SUMMARY

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| Permit Number     | Description             | Maximum Diversion Rate | Comments        |
|-------------------|-------------------------|------------------------|-----------------|
| G-11762           | Quasi-municipal         | 3.0 CFS                | Wells 6, 7, & 8 |
| G-11313           | Irrigation & Commercial | 4.28 CFS               | Wells 6, 7, & 8 |
| G-13856           | Quasi-municipal         | 3.34 CFS               | Well 9          |
| G-10530           | Quasi-municipal         | 1.70 CFS               | Wells 1 & 2     |
| G-10957           | Quasi-municipal         | 2.45 CFS               | Well 3          |
| Certificate 52185 | Irrigation              | 1.47 CFS               | Well 2          |

#### LIFT:

Typical operating conditions for each of the well pumps is summarized in the following table. Operating conditions are obtained from Cline Butte Company pressure and flow rate observations at each well house and the original designs by W&H Pacific.

#### WELL OPERATING CONDITIONS

| Well Number | Typical Operating Head for the Irrigation System | Reported Typical Flow Rate into the Irrigation System | Existing Pump Motor Horsepower |
|-------------|--------------------------------------------------|-------------------------------------------------------|--------------------------------|
| 6           | 550 Feet                                         | 1210 gpm                                              | 250 HP                         |
| 7           | 530 Feet                                         | 260 gpm                                               | 50 HP                          |
| 8           | 370 Feet                                         | 1760 gpm                                              | 250 HP                         |



In each case, W&H Pacific confirmed the pump is capable of producing the noted head and flow characteristics at the horsepower rating of the motor.

As noted previously, the total discharge rate of the three well pumps far exceeds the allowable diversion rate under Permit G-11762. However, multiple water rights apply to wells 6, 7, and 8, which authorize the noted diversion rates. The important conclusion from this summary of operating conditions is that wells have been constructed and well pumps installed and operated in a manner that allows full appropriation under Permit G-11762.

#### **SURVEY TIE:**

Most of the Eagle Crest destination resort project has been platted in the Deschutes County official records. The enclosed final proof survey map documents existing streets and lots and establishes a sectional grid throughout. The place of use is the exterior boundary of the Eagle Crest destination resort, which typically follows sectional lines, rivers, or highways. In all cases, detailed property boundary information is available from final plats in the Deschutes County Surveyor's records.

The location of wells is based upon past surveys by W&H Pacific of the well casings. The well locations were obtained under the direction of a licensed professional land surveyor from W&H Pacific and the specific coordinate information for each well is reduced and summarized on the attached claim of beneficial use map.

Actual well locations vary from the locations on the water right permit, as expected. The water right permit authorizes development of water sources and some flexibility is afforded the Permittee under the terms and intent of a water right permit.

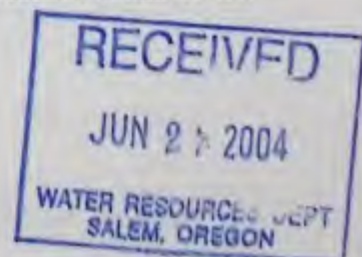
#### **SPECIAL CONDITIONS:**

Permit G-11762 authorizes the use of water from three wells in the Deschutes Basin for quasi-municipal use. The use is limited to no more than 3.0 cubic feet per second or its equivalent in case of rotation, measured at the wells. Permit G-11762 stipulates the proposed place of use under the permit. As noted, the attached claim of beneficial use includes the areas depicted on the original permit, but also the Eagle Crest III expansion area.

In water right work for various destination resort projects in Central Oregon, W&H Pacific was advised of State Statutes ORS 537.211 (4), ORS 537.211 (9) and ORS 540.510 (3)(a), which indicate water may be applied to beneficial use on lands to which the right is not appurtenant if the use continues to be for municipal purposes. Definitions appear to include the quasi-municipal use at Eagle Crest as applicable. In addition, a right-of-way grant has been awarded Eagle Crest, Inc., between the Eagle Crest II and III lands, which appears to be interpreted under the statutes as establishing a contiguous property. W&H Pacific is not qualified to interpret the law, but the Department's interpretation of these statutes indicates the place of use can and should include all of the Eagle Crest destination resort, regardless of the original application boundary.

The permit stipulates well construction in accordance with the general standards for the construction and maintenance for water wells in Oregon. Eagle Crest, Inc. retained STACO Well Services, Inc. to construct all three wells and specified conformance with the noted general standards. To the best of my knowledge, wells were constructed in general accordance with the noted standards. Each well was equipped with a usable access port and an airline. Not all airlines remain operable due to kinking or damage which likely occurred during pump installation. Eagle Crest, Inc. has agreed to replace or repair the airlines whenever well pumps are removed.

Permit G-11762 requires monitoring of water use. Each of the three wells is equipped with a water meter and records are maintained on a daily and monthly basis for water use. W&H Pacific has reported water use on an annual basis to the Oregon Water Resources Department and can confirm conformance with the intent of the permit condition.





The permit further stipulates the measurement of static water levels for each well during March of each year. Again, W&H Pacific has reported static water level measurements and is able to confirm compliance with the requirements.

As noted above, the airline in Well #6 has been damaged and is inoperable. W&H Pacific however utilized Well #7, located only 30 feet away, to obtain static water level information. The pump test for Well #6 confirmed hydraulic connection of the two wells, as expected. The static water levels closely agree with the original well log, pump test, and have been consistent from year to year.

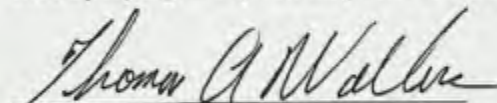
Permit G-11762 requires the submittal of a pump test, meeting the Department's standards. A pump test is included in the Appendix for each of the three wells.

The permit stipulates that actual construction work shall begin on or before May 31, 1995 and shall be completed on or before October 1, 1997. Complete application of the water should be made on or before October 1, 1998. The attached notices of completion and well logs 6 and 7 demonstrate compliance with initiation of construction. On behalf of Eagle Crest, Inc., W&H Pacific also submitted multiple water right extension applications. Several typical letters and subsequent correspondence from the Oregon Water Resources Department are included in the Appendix to document appropriate time extension applications and acknowledgement by the Department.

#### SUMMARY REMARKS:

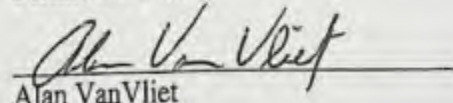
In summary, quasi-municipal use has been confirmed throughout the Eagle Crest destination resort, as noted on the attached final proof survey map. Water has been beneficially utilized from each of the three existing wells and the full permit appropriation of 3.0 CFS can be diverted and delivered in the irrigation and domestic water supply systems. The original permit establishes the limitation on this claim of beneficial use at 3.0 CFS. To the best of my knowledge and belief, Eagle Crest, Inc. and the Cline Butte Utility Company have beneficially utilized water in conformance with the intent of Permit G-11762 and should be granted a water right certificate for the full amount of the permit. The area of use should include the entire Eagle Crest destination resort, as depicted upon the attached final proof survey map.

The final proof survey and inspection of use, as found to be completed under the terms and conditions of Permit G-11762, was completed by W&H Pacific in May and June of 2004. The facts obtained in this report and the accompanying final proof map area are correct to the best of my knowledge.



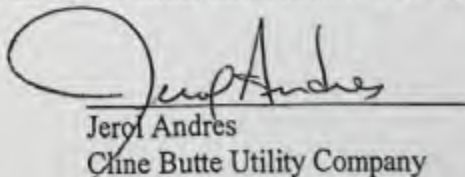
Thomas A. Walker, P.E., C.W.R.E.  
W&H Pacific, Inc.

I Alan VanVliet and Jerol Andres, agree to the findings of the Certified Water Rights Examiner and do submit this site report, map, and claim of beneficial use for the water provided under the terms and conditions of my Permit G-11762.



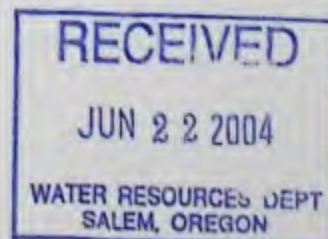
Alan VanVliet  
Eagle Crest, Inc.

DATE: 6-15-04



Jerol Andres  
Cline Butte Utility Company

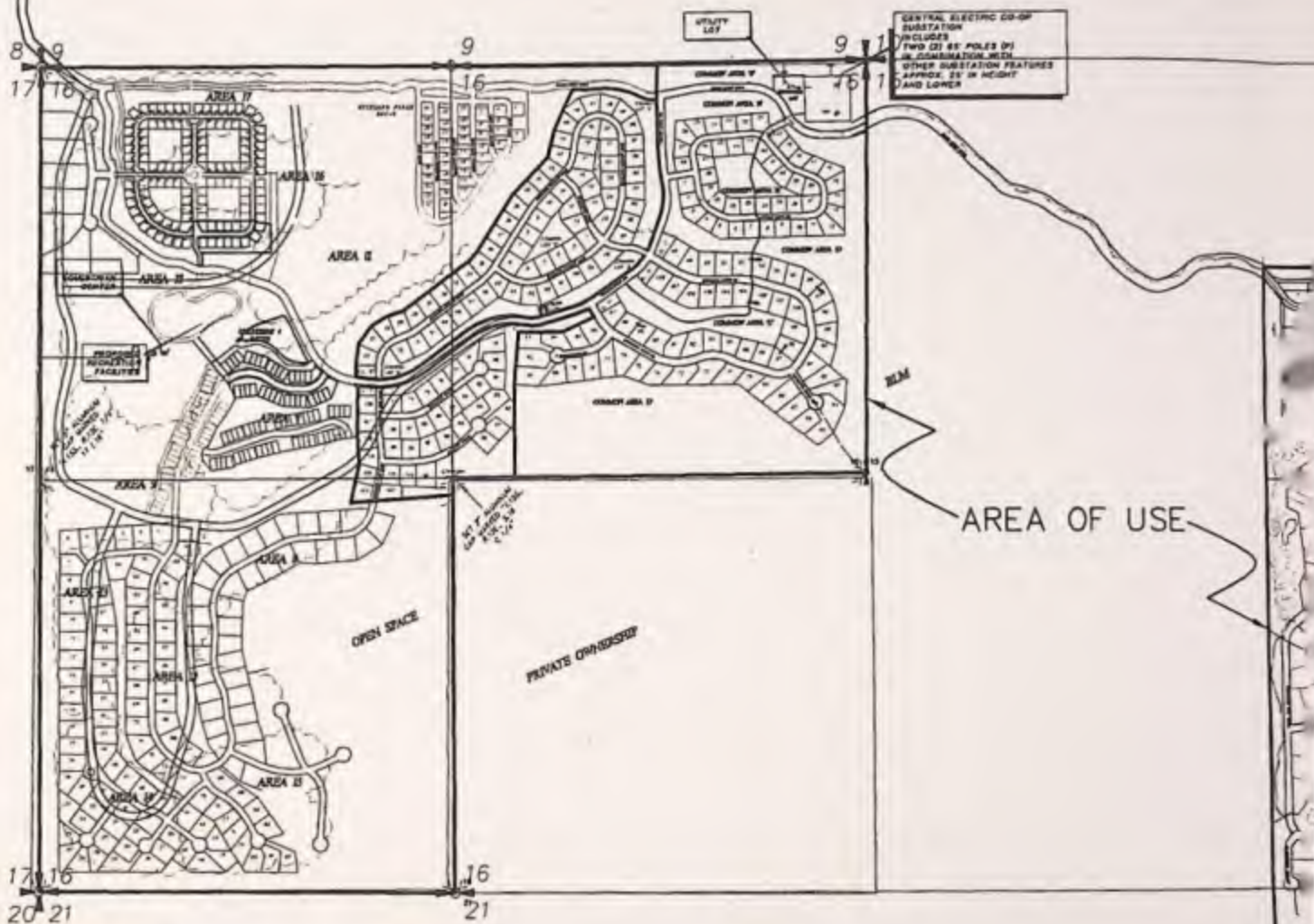
DATE: 6-15-04







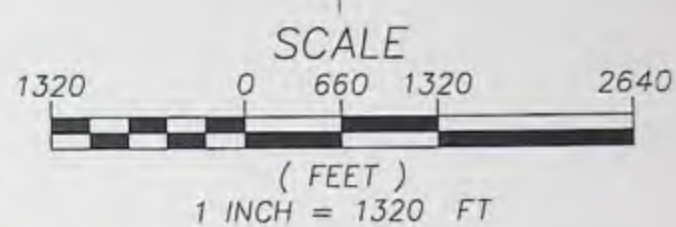




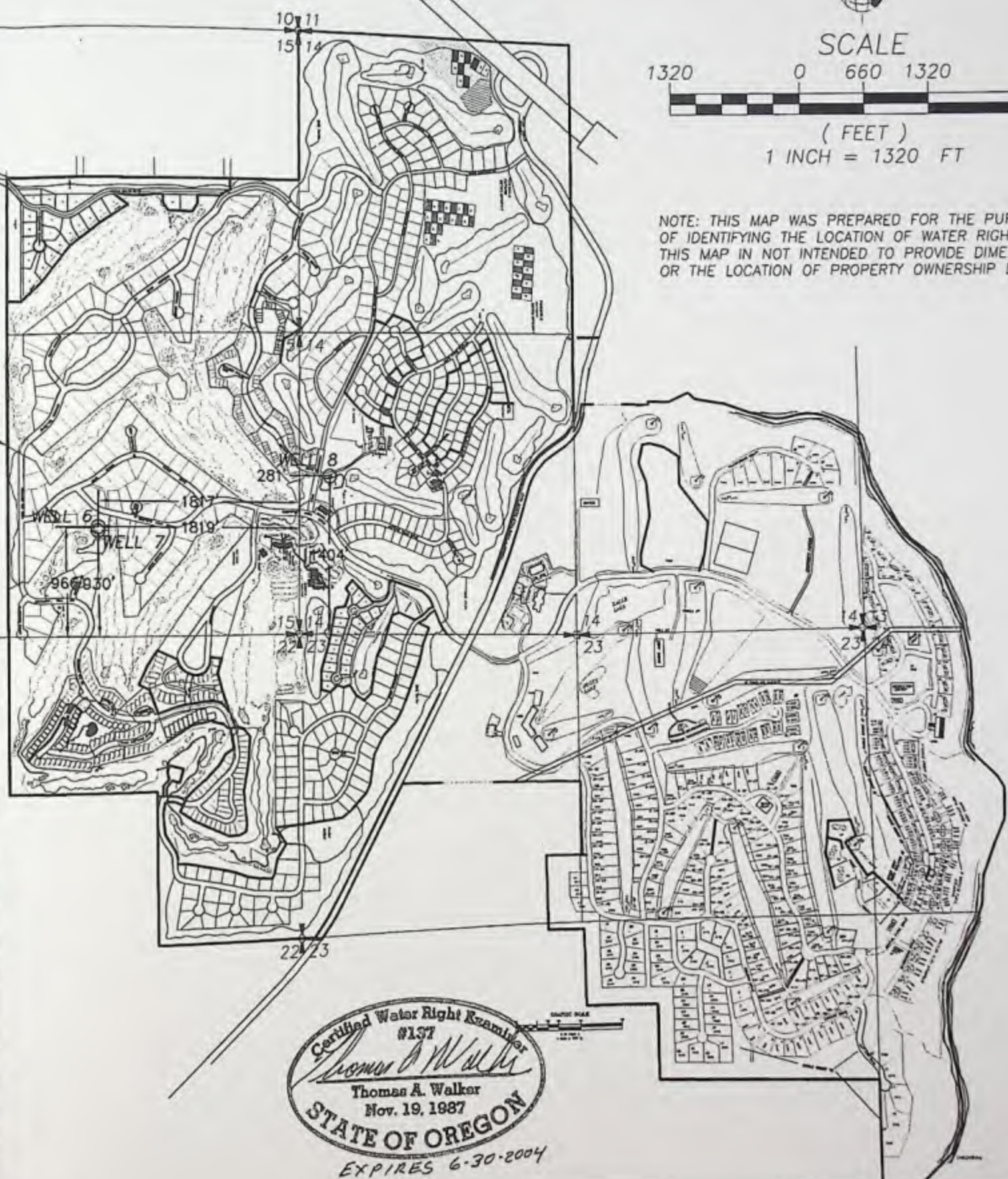
DETAIL



T DESTINATION RESORT  
 R RIGHTS MAP  
 PROOF SURVEY  
 JUNE, 2004



NOTE: THIS MAP WAS PREPARED FOR THE PURPOSE  
 OF IDENTIFYING THE LOCATION OF WATER RIGHTS.  
 THIS MAP IS NOT INTENDED TO PROVIDE DIMENSIONS  
 OR THE LOCATION OF PROPERTY OWNERSHIP LINES.



Certified Water Right Examiner  
 #137  
*Thomas A. Walker*  
 Thomas A. Walker  
 Nov. 19, 1987  
 STATE OF OREGON  
 EXPIRES 6-30-2004







walker

STATE OF OREGON  
COUNTY OF DESCHUTES  
PERMIT TO APPROPRIATE THE PUBLIC WATERS

THIS PERMIT IS HEREBY ISSUED TO

EAGLE RIDGE DEVELOPMENT CORPORATION  
P.O. BOX 1215  
REDMOND, OREGON 97756

503-923-0807

to use the waters of THREE WELLS in the DESCHUTES RIVER BASIN for QUASI-MUNICIPAL USE.

This permit is issued approving Application G-12905. The date of priority is MAY 4, 1992. The use is limited to not more than 3.0 CUBIC FEET PER SECOND, or its equivalent in case of rotation, measured at the wells.

The wells are located as follows:

SW 1/4 NW 1/4, SECTION 14, SW 1/4 SE 1/4, SECTION 15, T 15 S, R 12 E, W.M.; WELL 1 - 120 FEET NORTH AND 980 FEET EAST FROM THE W 1/4 CORNER OF SECTION 14, WELL 2 - 962 FEET NORTH AND 823 FEET EAST, WELL 3 - 1009 FEET NORTH AND 802 FEET EAST, BOTH FROM THE S 1/4 CORNER OF SECTION 15.

The use shall conform to such reasonable rotation system as may be ordered by the proper state officer.

A description of the proposed place of use under this permit is as follows:

SW 1/4 SW 1/4  
SECTION 11  
SW 1/4 SW 1/4  
SECTION 13  
W 1/2  
SE 1/4  
SECTION 14  
E 1/2  
SECTION 15  
N 1/2 NE 1/4  
SE 1/4 NE 1/4  
SECTION 22  
N 1/2  
N 1/2 SE 1/4  
SECTION 23  
W 1/2 W 1/2  
SECTION 24

TOWNSHIP 15 SOUTH, RANGE 12 EAST, W.M.

RECEIVED

JUN 22 2004

WATER RESOURCES DEPT  
SALEM, OREGON

The well shall be constructed in accordance with the General Standards for the Construction and Maintenance of Water Wells in Oregon. The works shall be equipped with a usable access port, and may also include an air line and pressure gauge adequate to determine water level elevation in the well at all times.

Measurement, recording and reporting conditions:

- A. Before water use may begin under this permit, the permittee shall install a meter or other suitable measuring device as approved by the Director. The permittee shall maintain the meter or measuring device in good working order, shall keep a complete record of the amount of water used each month and shall submit a report which includes the recorded water use measurements to the Department annually or more frequently as may be required by the Director.

Application G-12905

Water Resources Department

PERMIT G-11762



Further, the Director may require the permittee to report general water use information, including the place and nature of use of water under the permit.

- B. The permittee shall allow the watermaster access to the meter or measuring device; provided however, where the meter or measuring device is located within a private structure, the watermaster shall request access upon reasonable notice.

The PERMIT HOLDER shall obtain a static water-level measurement for each well during MARCH of each year and report the measurement to the Department within thirty days. The measurement shall be made by a certified water-rights examiner, registered professional geologist, or professional engineer. Water levels shall be reported as depth-to-water below ground level and shall be accompanied by supporting calculations. If a well listed on this permit displays a total static water-level decline of 10 or more feet over any period of years, when compared to the reference level, then the PERMIT HOLDER shall discontinue use of, or reduce the rate or volume of withdrawal, from the well(s). Such action shall be taken until the water level recovers to above the 10-foot decline level or until the Department determines, based on the PERMIT HOLDER'S or the Department's data and analysis, that no action is necessary because the aquifer in question can sustain the observed declines without adversely impacting the resource or senior water rights. The reference level for water-level declines shall be the first (March 1995) or second annual (March 1996), whichever is higher, measurement taken after water use begins under the terms of this permit. The PERMIT HOLDER shall in no instance allow excessive decline to occur within the aquifer as a result of use under this permit.

In the event of a request for a change in point of appropriation, an additional point of appropriation or alteration of the appropriation facility associated with this authorized diversion, the quantity of water allowed herein, together with any other right, shall not exceed the capacity of the facility at the time of perfection of this right.

This right is limited to any deficiency in the available supply of any prior right existing for the same land.

Prior to receiving a certificate of water right, the permit holder shall submit the results of a pump test meeting the department's standards, to the Water Resources Department. The Director may require water level or pump test results every ten years thereafter.

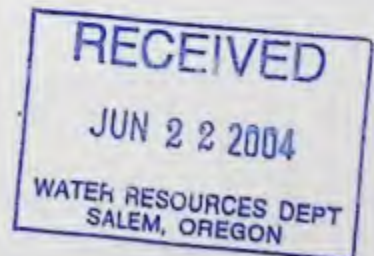
Actual construction work shall begin on or before May 31, 1995 and shall be completed on or before October 1, 1997. Complete application of water shall be made on or before October 1, 1998.

Failure to comply with any of the provisions of this permit may result in action including, but not limited to, restrictions on the use, civil penalties, or cancellation of the permit.

This permit is for beneficial use of water without waste. The water user is advised that new regulations may require use of best practical technologies or conservation practices to achieve this end.

By law, the land use associated with this water use must be in compliance with statewide land-use goals and any local acknowledged land-use plan.

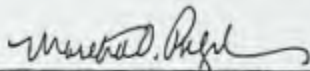
The use of water shall be limited when it interferes with any prior surface or ground water rights.



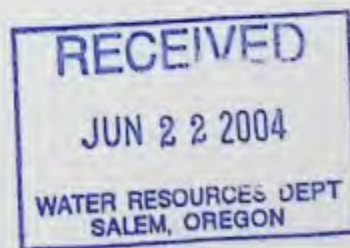


The Water Resources Commission has found that the proposed use of water described by this permit, as conditioned, will not impair or be detrimental to the public interest on April 20, 1994.

Issued this date, May 3/ , 1994.



Water Resources Department  
Martha O. Pagel  
Director











# Oregon

John A. Kitzhaber, M.D., Governor

April 17, 2001

## Water Resources Department

Commerce Building  
158 12th Street NE  
Salem, OR 97301-4172  
(503) 378-3739  
FAX (503) 378-8130

Cline Butte Utility Co.  
1140 Nutcracker Rd  
Redmond, OR 97756

RECEIVED  
APR 23 2001  
W & H PACIFIC, INC.

Reference: File G-12905

The assignment by deed to you of Permit G-11762 has been filed in the records of the Water Resources Department. Our records have been changed accordingly.

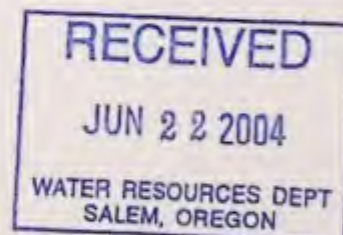
Receipt number 43400 covering the \$50 recording fee has been sent to W & H Pacific Inc.

Sincerely,

Dallas S. Miller  
Water Rights Specialist

Enclosure

cc: Watermaster #11  
Data Center/OWRD  
Jerol Andres, President if Eagle Ridge, PO Box 1215, Redmond, OR 97756  
W & H Pacific Inc., 920 SW Emkay, Suite C100, Bend, OR 97702









STATE OF OREGON  
WATER WELL REPORT  
(as required by ORS 537.765)

JOI JLEW ROY SNOITCOURT I

(START CARD) # 36697

WELL #6

(1) OWNER: Well Number: PH #1  
Name Eagle Ridge Development Corporation  
Address P.O. Box 1215  
City Redmond State OR Zip 97756

(2) TYPE OF WORK:  
☒ New Well ☐ Deepen ☐ Recondition ☐ Abandon

(3) DRILL METHOD  
☒ Rotary Air ☐ Rotary Mud ☐ Cable  
☐ Other

(4) PROPOSED USE:  
☐ Domestic ☐ Community ☐ Industrial ☒ Irrigation  
☐ Thermal ☐ Injection ☐ Other

(5) BORE HOLE CONSTRUCTION:  
Special Construction approval Yes ☐ No ☒ Depth of Completed Well 800 ft.  
Explosives used ☐ ☒ Type XX Amount 80 sacks or pounds

| HOLE     |      |     | SEAL     |      |    | Amount          |       |
|----------|------|-----|----------|------|----|-----------------|-------|
| Diameter | From | To  | Material | From | To | sacks or pounds |       |
| 17       | 47   | 800 |          | 0    | 47 | 80              | sacks |

How was seal placed: Method ☐ A ☐ B ☒ C ☐ D ☐ E

☐ Other

Backfill placed from        ft. to        ft. Material       

Gravel placed from        ft. to        ft. Size of gravel       

(6) CASING/LINER:

|        | Diameter | From | To  | Gauge | Steel                               | Plastic                  | Welded                              | Threaded                 |
|--------|----------|------|-----|-------|-------------------------------------|--------------------------|-------------------------------------|--------------------------|
| Casing | 18       | +1   | 47  | .250  | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
|        |          |      |     |       | <input type="checkbox"/>            | <input type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> |
|        |          |      |     |       | <input type="checkbox"/>            | <input type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> |
|        |          |      |     |       | <input type="checkbox"/>            | <input type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> |
|        |          |      |     |       | <input type="checkbox"/>            | <input type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> |
| Liner  | 14"      | +2   | 800 | .375  | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
|        |          |      |     |       | <input type="checkbox"/>            | <input type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> |

Final location of sheet 800'

(7) PERFORATIONS/SCREENS:  
☒ Perforations Method Factory perforated  
☐ Screens Type        Material       

| From | To  | Slot size | Number | Diameter | Tel./pipe size | Casing                   | Liner                               |
|------|-----|-----------|--------|----------|----------------|--------------------------|-------------------------------------|
| 510  | 790 | 4X3       | 8000   | 14"      |                | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

(9) LOCATION OF WELL by legal description:  
County Deschutes Latitude 42° 12' N Longitude 120° 12' W  
Township 15 S Range 12 E Section 15  
Tax Lot 1500 Lot 1 Block 1 Subdivision         
Street Address of Well (or nearest address) N/A

(10) STATIC WATER LEVEL:  
ft. below land surface 518 Date 2/20/92  
Artesian pressure        lb. per square inch. Date       

(11) WATER BEARING ZONES:  
Depth at which water was first found 540

| From | To  | Estimated Flow Rate | SWI |
|------|-----|---------------------|-----|
| 540  | 800 | <u>800</u>          | 518 |

(12) WELL LOG: Ground elevation       

| Material                         | From | To  | SWI |
|----------------------------------|------|-----|-----|
| Sand & cobbles                   | 1    | 4   |     |
| Broken lava red and brown        | 4    | 40  |     |
| Basalt gray hard                 | 40   | 55  |     |
| Lava cinders red                 | 55   | 68  |     |
| Lava brown                       | 68   | 80  |     |
| Basalt gray and brown hard       | 80   | 85  |     |
| Basalt softer                    | 85   | 93  |     |
| Lava red & brown broken soft     | 93   | 111 |     |
| Basalt gray hard                 | 111  | 157 |     |
| Basalt gray softer w/ red cinder | 157  | 162 |     |
| Lava red                         | 162  | 185 |     |
| Lava brown w/sandstone           | 185  | 299 |     |
| Lava dark brown w/pumice         | 299  | 330 |     |
| Andacite brown hard              | 330  | 375 |     |
| Andacite gray                    | 375  | 400 |     |
| Andacite Gray & brown hard       | 400  | 469 |     |
| Andacite gray softer             | 469  | 502 |     |
| Andacite hard brown              | 502  | 524 |     |
| Andacite light brown softer      | 524  | 568 |     |
| Rock black and red               | 568  | 600 |     |
| Andacite brown hard              | 600  | 608 |     |
| Red cinder                       | 608  | 612 |     |
| Andacite brown hard              | 612  | 620 |     |

Date started 1/20/92 Completed 2/20/92

(unbonded) Water Well Constructor Certification:

I certify that the work I performed on the construction, alteration, abandonment of this well is in compliance with Oregon well construction standards. Materials used and information reported above are true to my best knowledge and belief.  
Signed [Signature] Date 3/4/92 WWC Number 1358

(bonded) Water Well Constructor Certification:

I accept responsibility for the construction, alteration, or abandonment work performed on this well during the construction dates reported above. Work performed during this time is in compliance with Oregon well construction standards. This report is true to the best of my knowledge and belief.  
Signed [Signature] Date 3/4/92 WWC Number 723

(8) WELL TESTS: Minimum testing time is 1 hour

☐ Pump ☐ Bailor ☒ Air ☐ Artesian  
Yield gal/min 800 (est.) Drawdown 750 Drill stem at 1 hr

Temperature of water        Depth Artesian Flow Found       

Was a water analysis done? ☐ Yes By whom       

Did any strata contain water not suitable for intended use? ☐ Too little

☐ Salty ☐ Muddy ☐ Odor ☐ Colored ☐ Other       

Depth of strata:



STATE OF OREGON  
WATER WELL REPORT  
(as required by ORS 537.765)

(START CARD) # 36697

(1) OWNER: Well Number PW #1  
Name Eagle Ridge Development Corporation  
Address Page 2  
City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

(2) TYPE OF WORK:  
☐ New Well ☐ Deepen ☐ Recondition ☐ Abandon

(3) DRILL METHOD  
☐ Rotary Air ☐ Rotary Mud ☐ Cable  
☐ Other \_\_\_\_\_

(4) PROPOSED USE:  
☐ Domestic ☐ Community ☐ Industrial ☐ Irrigation  
☐ Thermal ☐ Injection ☐ Other \_\_\_\_\_

(5) BORE HOLE CONSTRUCTION:  
Special Construction approval Yes ☐ No ☐ Depth of Completed Well \_\_\_\_\_ ft.  
Explosives used ☐ Yes ☐ No ☐ Type \_\_\_\_\_ Amount \_\_\_\_\_

| HOLE     |         | SEAL     |         | Amount          |  |
|----------|---------|----------|---------|-----------------|--|
| Diameter | From To | Material | From To | sacks or pounds |  |
|          |         |          |         |                 |  |
|          |         |          |         |                 |  |
|          |         |          |         |                 |  |

How was seal placed: Method ☐ A ☐ B ☐ C ☐ D ☐ E  
☐ Other \_\_\_\_\_  
Backfill placed from \_\_\_\_\_ ft. to \_\_\_\_\_ ft. Material \_\_\_\_\_  
Gravel placed from \_\_\_\_\_ ft. to \_\_\_\_\_ ft. Size of gravel \_\_\_\_\_

(6) CASING/LINER:

| Diameter | From | To | Gauge | Steel                    | Plastic                  | Welded                   | Threaded                 |
|----------|------|----|-------|--------------------------|--------------------------|--------------------------|--------------------------|
| Casing:  |      |    |       | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
|          |      |    |       | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
|          |      |    |       | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
|          |      |    |       | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Liner:   |      |    |       | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
|          |      |    |       | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

Final location of sheet(s) \_\_\_\_\_

(7) PERFORATIONS/SCREENS:  
☐ Perforations Method \_\_\_\_\_  
☐ Screens Type \_\_\_\_\_ Material \_\_\_\_\_

| From | To | Slot size | Number | Diameter | Tele/pipe size | Casing                   | Liner                    |
|------|----|-----------|--------|----------|----------------|--------------------------|--------------------------|
|      |    |           |        |          |                | <input type="checkbox"/> | <input type="checkbox"/> |
|      |    |           |        |          |                | <input type="checkbox"/> | <input type="checkbox"/> |
|      |    |           |        |          |                | <input type="checkbox"/> | <input type="checkbox"/> |
|      |    |           |        |          |                | <input type="checkbox"/> | <input type="checkbox"/> |
|      |    |           |        |          |                | <input type="checkbox"/> | <input type="checkbox"/> |

(8) WELL TESTS: Minimum testing time is 1 hour  
☐ Pump ☐ Bailer ☐ Air ☐ Artesian  
Yield gal/min \_\_\_\_\_ Drawdown \_\_\_\_\_ Drill stem at \_\_\_\_\_ Time \_\_\_\_\_

| Temperature of water | Depth | Artesian | Flow | Found |
|----------------------|-------|----------|------|-------|
|                      |       |          |      |       |

Was a water analysis done? ☐ Yes By whom \_\_\_\_\_  
Did any strata contain water not suitable for intended use? ☐ Too little  
☐ Salty ☐ Muddy ☐ Odor ☐ Colored ☐ Other \_\_\_\_\_  
Depth of strata: \_\_\_\_\_

(9) LOCATION OF WELL by legal description:  
County Deschutes Latitude 42° 17' 00" N Longitude 120° 11' 00" W  
Township 15 S Nor S, Range 12 E E or W, WM.  
Section 15 SW 1/4 SE 1/4  
Tax Lot 1500 Lot \_\_\_\_\_ Block \_\_\_\_\_ Subdivision \_\_\_\_\_  
Street Address of Well (or nearest address) N/A

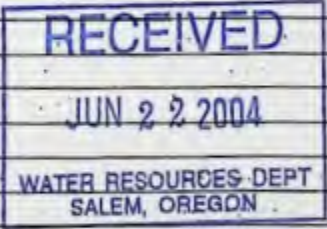
(10) STATIC WATER LEVEL:  
\_\_\_\_\_ ft. below land surface. Date \_\_\_\_\_  
Artesian pressure \_\_\_\_\_ lb. per square inch. Date \_\_\_\_\_

(11) WATER BEARING ZONES:  
Depth at which water was first found \_\_\_\_\_

| From | To | Estimated Flow Rate | SWI |
|------|----|---------------------|-----|
|      |    |                     |     |
|      |    |                     |     |
|      |    |                     |     |

(12) WELL LOG: Ground elevation \_\_\_\_\_

| Material                         | From | To  | SWI |
|----------------------------------|------|-----|-----|
| Andacite light gray w/purice     | 620  | 645 |     |
| Andacite brown fractured         | 645  | 655 |     |
| Andacite brown hard              | 655  | 670 |     |
| Andacite gray w/brown nod.       | 670  | 691 |     |
| Andacite gray hard               | 691  | 710 |     |
| Andacite brown w/purice interbed | 710  | 733 |     |
| Andacite brown & red fractured   | 733  | 740 |     |
| Andacite brown very hard         | 740  | 761 |     |
| Purice white                     | 761  | 776 |     |
| Andacite gray and brown          | 776  | 800 |     |



Date started 1/30/92 Completed 2/20/92

(unbonded) Water Well Constructor Certification:  
I certify that the work I performed on the construction, alteration, abandonment of this well is in compliance with Oregon well construct standards. Materials used and information reported above are true to my knowledge and belief.  
Signed [Signature] WWC Number 1358  
Date 3/4/92

(bonded) Water Well Constructor Certification:  
I accept responsibility for the construction, alteration, or abandonment work performed on this well during the construction dates reported above. Work performed during this time is in compliance with Oregon construction standards. This report is true to the best of my knowledge and belief.  
Signed [Signature] WWC Number 72  
Date 3/4/92



STATE OF OREGON  
WATER WELL REPORT  
(as required by ORS 537.765)

Page 1 of 2

(START CARD) # 24267

EE II 1-10-91 Well # 7

(1) OWNER: Well Number \_\_\_\_\_  
Name Eagle Ridge Development  
Address P.O. Box 1215  
City Redmond State OR Zip 97756

(2) TYPE OF WORK:  
☐ New Well ☐ Deepen ☐ Recondition ☐ Abandon

(3) DRILL METHOD:  
☐ Rotary Air ☐ Rotary Mud ☐ Cable  
☐ Other \_\_\_\_\_

(4) PROPOSED USE:  
☐ Domestic ☐ Community ☐ Industrial ☒ Irrigation  
☐ Thermal ☐ Injection ☐ Other \_\_\_\_\_

(5) BORE HOLE CONSTRUCTION:  
Special Construction approval ☐ Yes ☒ No Depth of Completed Well \_\_\_\_\_ ft.  
Explosives used ☐ Yes ☒ No Type \_\_\_\_\_ Amount \_\_\_\_\_

| HOLE     |         | SEAL      |         | Amount          |  |
|----------|---------|-----------|---------|-----------------|--|
| Diameter | From To | Material  | From To | sacks or pounds |  |
| 13       | 0 50    | Lentonite | 0 15    | 15              |  |
| 10       | 50 100  | Cement    | 15 100  | 60              |  |
| 8        | 100 500 |           |         |                 |  |

How was seal placed: Method ☐ A ☐ B ☒ C ☐ D ☐ E  
☐ Other Lentonite dry in top 15'

Backfill placed from \_\_\_\_\_ ft. to \_\_\_\_\_ ft. Material \_\_\_\_\_  
Gravel placed from \_\_\_\_\_ ft. to \_\_\_\_\_ ft. Size of gravel \_\_\_\_\_

(6) CASING/LINER:

| Diameter   | From | To  | Gauge | Steel                               | Plastic                  | Welded                              | Threaded                 |
|------------|------|-----|-------|-------------------------------------|--------------------------|-------------------------------------|--------------------------|
| Casing: 13 | 0    | 50  |       | <input type="checkbox"/>            | <input type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> |
|            | 50   | 98  | .250  | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
|            |      |     |       | <input type="checkbox"/>            | <input type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> |
|            |      |     |       | <input type="checkbox"/>            | <input type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> |
| Liner: 10  | 0    | 500 |       | <input type="checkbox"/>            | <input type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> |
|            |      |     |       | <input type="checkbox"/>            | <input type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> |

Final location of shoe(s) 500

(7) PERFORATIONS/SCREENS:  
☐ Perforations Method Air  
☐ Screens Type \_\_\_\_\_ Material \_\_\_\_\_

| From | To  | Slot size | Number | Diameter | Tele/pipe size | Casing                   | Liner                               |
|------|-----|-----------|--------|----------|----------------|--------------------------|-------------------------------------|
| 100  | 220 | 1x1/4     | 400    | 8        |                | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 220  | 100 | 1x1/4     | 2000   | 8        |                | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|      |     |           |        |          |                | <input type="checkbox"/> | <input type="checkbox"/>            |
|      |     |           |        |          |                | <input type="checkbox"/> | <input type="checkbox"/>            |
|      |     |           |        |          |                | <input type="checkbox"/> | <input type="checkbox"/>            |

(8) WELL TESTS: Minimum testing time is 1 hour  
☐ Pump ☐ Bailer ☒ Air ☐ Flowing Artesian

| Yield gal/min | Drawdown | Drill stem at | Time  |
|---------------|----------|---------------|-------|
| 30            |          | 500           | 1 hr. |
|               |          |               |       |
|               |          |               |       |

Temperature of Water 54 Depth Artesian Flow Found \_\_\_\_\_  
Was a water analysis done? ☐ Yes By whom \_\_\_\_\_  
Did any strata contain water not suitable for intended use? ☐ Too little  
☐ Salty ☐ Muddy ☐ Odor ☐ Colored ☐ Other \_\_\_\_\_  
Depth of strata: \_\_\_\_\_

(9) LOCATION OF WELL by legal description:  
County \_\_\_\_\_ Latitude \_\_\_\_\_ Longitude \_\_\_\_\_  
Township 15 N or S. Range 12 E or W. WM.  
Section 22 34 12 4  
Tax Lot \_\_\_\_\_ Lot \_\_\_\_\_ Block \_\_\_\_\_ Subdivision \_\_\_\_\_  
Street Address of Well (or nearest address) Clina Falls Hwy

(10) STATIC WATER LEVEL:  
528 ft. below land surface. Date 10-11-91  
Artesian pressure \_\_\_\_\_ lb. per square inch. Date \_\_\_\_\_

(11) WATER BEARING ZONES:  
Depth at which water was first found 500

| From | To  | Estimated Flow Rate | SWL |
|------|-----|---------------------|-----|
| 500  | 515 |                     |     |
| 720  | 735 |                     |     |
|      |     |                     |     |

(12) WELL LOG:  
Ground elevation \_\_\_\_\_

| Material                     | From | To  | SWL |
|------------------------------|------|-----|-----|
| Dirt                         | 0    | 2   |     |
| Broken rock                  | 2    | 12  |     |
| Sand black coarse dry        | 12   | 23  |     |
| Broken rock red & gray       | 23   | 30  |     |
| Rock hard                    | 30   | 42  |     |
| Sandstone soft brown         | 42   | 48  |     |
| Lava porous gray & brown     | 48   | 55  |     |
| Broken lava red & gray       | 55   | 83  |     |
| Lava harder red & gray       | 83   | 132 |     |
| Basalt gray hard             | 132  | 160 |     |
| Lava red medium              | 160  | 185 |     |
| Lava red with white pumice   | 185  | 203 |     |
| Multi-colored lava brown red | 203  | 310 |     |
| gray                         |      | 310 |     |
| Broken lava red brown        | 310  | 375 |     |
| Rock medium brown            | 375  | 392 |     |
| Rock gray with some pumice   | 392  | 400 |     |
| Rock gray and white          | 400  | 435 |     |
| Rock brown gray white        | 435  | 442 |     |
| Basalt gray hard             | 442  | 451 |     |
| Basalt gray hard             |      |     |     |
| Basalt gray hard             |      |     |     |

Date started 9-18-91 Completed 10-11-91

(unbonded) Water Well Constructor Certification:  
I certify that the work I performed on the construction, alteration, or abandonment of this well is in compliance with Oregon well construction standards. Material used and information reported above are true to my best knowledge and belief.

Signed \_\_\_\_\_ WWC Number \_\_\_\_\_  
Date \_\_\_\_\_

(bonded) Water Well Constructor Certification:  
I accept responsibility for the construction, alteration, or abandonment work performed on this well during the construction dates reported above. All work performed during this time is in compliance with Oregon well construction standards. This report is true to the best of my knowledge and belief.

Signed \_\_\_\_\_ WWC Number \_\_\_\_\_  
Date \_\_\_\_\_



STATE OF OREGON  
WATER WELL REPORT  
(as required by ORS 537.765)

Page 2 of 2

(START CARD) # 34257

(1) OWNER: Well Number \_\_\_\_\_  
Name Eagle Ridge Development  
Address R.O. Box 1215  
City Redmond State OR Zip 97756

(2) TYPE OF WORK:  
☐ New Well ☐ Deepen ☐ Recondition ☐ Abandon

(3) DRILL METHOD:  
☐ Rotary Air ☐ Rotary Mud ☐ Cable  
☐ Other \_\_\_\_\_

(4) PROPOSED USE:  
☐ Domestic ☐ Community ☐ Industrial ☐ Irrigation  
☐ Thermal ☐ Injection ☐ Other \_\_\_\_\_

(5) BORE HOLE CONSTRUCTION:  
Special Construction approval ☐ Yes ☐ No Depth of Completed Well \_\_\_\_\_ ft.  
Explosives used ☐ Yes ☐ No Type \_\_\_\_\_ Amount \_\_\_\_\_

| HOLE     |      |    | SEAL     |      |    | Amount          |
|----------|------|----|----------|------|----|-----------------|
| Diameter | From | To | Material | From | To | sacks or pounds |
|          |      |    |          |      |    |                 |
|          |      |    |          |      |    |                 |
|          |      |    |          |      |    |                 |

How was seal placed: Method ☐ A ☐ B ☐ C ☐ D ☐ E  
☐ Other \_\_\_\_\_

Backfill placed from \_\_\_\_\_ ft. to \_\_\_\_\_ ft. Material \_\_\_\_\_  
Gravel placed from \_\_\_\_\_ ft. to \_\_\_\_\_ ft. Size of gravel \_\_\_\_\_

(6) CASING/LINER:

|         | Diameter | From | To | Gauge | Steel                    | Plastic                  | Welded                   | Threaded                 |
|---------|----------|------|----|-------|--------------------------|--------------------------|--------------------------|--------------------------|
| Casing: |          |      |    |       | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
|         |          |      |    |       | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
|         |          |      |    |       | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
|         |          |      |    |       | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Liner:  |          |      |    |       | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
|         |          |      |    |       | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

Final location of shoe(s) \_\_\_\_\_

(7) PERFORATIONS/SCREENS:  
☐ Perforations Method \_\_\_\_\_  
☐ Screens Type \_\_\_\_\_ Material \_\_\_\_\_

| From | To | Slot size | Number | Diameter | Tele/pipe size | Casing                   | Liner                    |
|------|----|-----------|--------|----------|----------------|--------------------------|--------------------------|
|      |    |           |        |          |                | <input type="checkbox"/> | <input type="checkbox"/> |
|      |    |           |        |          |                | <input type="checkbox"/> | <input type="checkbox"/> |
|      |    |           |        |          |                | <input type="checkbox"/> | <input type="checkbox"/> |
|      |    |           |        |          |                | <input type="checkbox"/> | <input type="checkbox"/> |

(8) WELL TESTS: Minimum testing time is 1 hour

☐ Pump ☐ Bailer ☐ Air ☐ Flowing ☐ Artesian

| Yield gal/min | Drawdown | Drill stem at | Time  |
|---------------|----------|---------------|-------|
|               |          |               | 1 hr. |
|               |          |               |       |
|               |          |               |       |

Temperature of Water \_\_\_\_\_ Depth Artesian Flow Found \_\_\_\_\_  
Was a water analysis done? ☐ Yes By whom \_\_\_\_\_  
Did any strata contain water not suitable for intended use? ☐ Too little  
☐ Salty ☐ Muddy ☐ Odor ☐ Colored ☐ Other \_\_\_\_\_  
Depth of strata: \_\_\_\_\_

(9) LOCATION OF WELL by legal description:

County \_\_\_\_\_ Latitude \_\_\_\_\_ Longitude \_\_\_\_\_  
Township \_\_\_\_\_ N or S. Range \_\_\_\_\_ E or W. WM. \_\_\_\_\_  
Section \_\_\_\_\_ 1/4 \_\_\_\_\_ 1/4 \_\_\_\_\_  
Tax Lot \_\_\_\_\_ Lot \_\_\_\_\_ Block \_\_\_\_\_ Subdivision \_\_\_\_\_  
Street Address of Well (or nearest address) \_\_\_\_\_

(10) STATIC WATER LEVEL:

\_\_\_\_\_ ft. below land surface. Date \_\_\_\_\_  
Artesian pressure \_\_\_\_\_ lb. per square inch. Date \_\_\_\_\_

(11) WATER BEARING ZONES:

Depth at which water was first found \_\_\_\_\_

| From | To | Estimated Flow Rate | SWL |
|------|----|---------------------|-----|
|      |    |                     |     |
|      |    |                     |     |
|      |    |                     |     |

(12) WELL LOG:

Ground elevation \_\_\_\_\_

| Material                      | From | To  | SWL |
|-------------------------------|------|-----|-----|
| Andesite grey brown hard      | 461  | 540 |     |
| Cinders or pumice             | 540  | 615 |     |
| quartzite andesite weathered  | 615  | 720 |     |
| Brown andesite weathered      | 720  | 755 |     |
| Brown andesite hard           | 755  | 790 |     |
| Andesite red grey with pumice | 790  | 860 |     |
| softer                        |      | 757 |     |
| Andesite hard                 | 767  | 790 |     |
| Andesite softer               | 790  | 860 |     |

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JUN 22 2004

WATER RESOURCES DEPT  
SALEM, OREGON

Date started 5-11-02 Completed 10-11-02

(unbonded) Water Well Constructor Certification:

I certify that the work I performed on the construction, alteration, or abandonment of this well is in compliance with Oregon well construction standards. Material used and information reported above are true to my best knowledge and belief.

Signed \_\_\_\_\_ WWC Number \_\_\_\_\_  
Date \_\_\_\_\_

(bonded) Water Well Constructor Certification:

I accept responsibility for the construction, alteration, or abandonment work performed on this well during the construction dates reported above. All work performed during this time is in compliance with Oregon well construction standards. This report is true to the best of my knowledge and belief.

Signed \_\_\_\_\_ WWC Number \_\_\_\_\_  
Date \_\_\_\_\_



STATE OF OREGON WATER RESOURCES DEPT.  
WATER WELL REPORT SALEM, OREGON  
(as required by ORS 537.705)

JUL - 7 1998

(START CARD) # 89252

(1) OWNER: Well Number: 8  
Name Eagle Crest  
Address po box 1215  
City Redmond State OR Zip 97756

(2) TYPE OF WORK:  
☒ New Well ☐ Deepen ☐ Recondition ☐ Abandon

(3) DRILL METHOD  
☒ Rotary Air ☐ Rotary Mud ☐ Cable  
☐ Other

(4) PROPOSED USE:  
☐ Domestic ☒ Community ☐ Industrial ☐ Irrigation  
☐ Thermal ☐ Injection ☐ Other

(5) BORE HOLE CONSTRUCTION:  
Special Construction approval Yes ☐ No ☒ Depth of Completed Well 600 ft.  
Explosives used ☐ Yes ☒ No ☐ Type \_\_\_\_\_ Amount \_\_\_\_\_

| HOLE     |      |     | SEAL     |      |    | Amount<br>sacks or pounds |
|----------|------|-----|----------|------|----|---------------------------|
| Diameter | From | To  | Material | From | To |                           |
| 23"      | 0    | 60  | cement   | 0    | 24 | 44                        |
| 19"      | 60   | 65  | bent     | 24   | 40 | 48                        |
| 17"      | 65   | 600 | cement   | 40   | 60 | 282                       |

How was seal placed: Method ☐ A ☐ B ☒ C ☐ D ☐ E  
☐ Other chips poured  
Backfill placed from \_\_\_\_\_ ft. to \_\_\_\_\_ ft. Material \_\_\_\_\_  
Gravel placed from \_\_\_\_\_ ft. to \_\_\_\_\_ ft. Size of gravel \_\_\_\_\_

(6) CASING/LINER:

| Diameter   | From | To  | Gauge | Steel                               | Plastic                  | Welded                              | Threaded                 |
|------------|------|-----|-------|-------------------------------------|--------------------------|-------------------------------------|--------------------------|
| Casing: 18 | +15  | 60  | .375  | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
|            |      |     |       | <input type="checkbox"/>            | <input type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> |
|            |      |     |       | <input type="checkbox"/>            | <input type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> |
|            |      |     |       | <input type="checkbox"/>            | <input type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> |
| Liner: 14  | -5   | 600 | .375  | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
|            |      |     |       | <input type="checkbox"/>            | <input type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> |

Final location of shoe(s) \_\_\_\_\_

(7) PERFORATIONS/SCREENS:  
☒ Perforations Method factory swift  
☐ Screens Type \_\_\_\_\_ Material \_\_\_\_\_

| From | To  | Slot<br>size | Number | Diameter | Tele/pipe<br>size | Casing                   | Liner                               |
|------|-----|--------------|--------|----------|-------------------|--------------------------|-------------------------------------|
| 390  | 600 | 1/8x3/8      | 8000   | 14"      |                   | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|      |     |              |        |          |                   | <input type="checkbox"/> | <input type="checkbox"/>            |
|      |     |              |        |          |                   | <input type="checkbox"/> | <input type="checkbox"/>            |
|      |     |              |        |          |                   | <input type="checkbox"/> | <input type="checkbox"/>            |
|      |     |              |        |          |                   | <input type="checkbox"/> | <input type="checkbox"/>            |

(8) WELL TESTS: Minimum testing time is 1 hour  
☐ Pump ☐ Bailor ☒ Air ☐ Flowing  
Yield/gal/min \_\_\_\_\_ Drawdown \_\_\_\_\_ Discharge \_\_\_\_\_

LOCATION OF WELL by legal description:  
County Deschutes Latitude \_\_\_\_\_ Longitude \_\_\_\_\_  
Township 15S Nor S. Range 12E E or W.  
Section 14 NW 1/4 SW 1/4  
Tax Lot 1542-1540 Lot \_\_\_\_\_ Block \_\_\_\_\_ Subdivision \_\_\_\_\_  
Street Address of Well (or nearest address) \_\_\_\_\_  
cline falls hwy

(10) STATIC WATER LEVEL:  
312 ft. below land surface. Date 4-22  
Artesian pressure \_\_\_\_\_ lb. per square inch. Date \_\_\_\_\_

(11) WATER BEARING ZONES:

Depth at which water was first found 350'

| From | To  | Estimated Flow Rate |
|------|-----|---------------------|
| 350  | 600 |                     |
|      |     |                     |
|      |     |                     |

(12) WELL LOG: Ground elevation \_\_\_\_\_

| Material                   | From | To  |
|----------------------------|------|-----|
| soil                       | 0    | 5   |
| basalt grey fractured      | 5    | 8   |
| withrd rock soft grey      | 8    | 13  |
| grey harder                | 13   | 32  |
| lava red hard              | 32   | 38  |
| lava red hard              | 38   | 40  |
| basalt grey very hard      | 40   | 100 |
| basalt grey & brown hard   | 127  | 141 |
| lava grey & red med        | 127  | 141 |
| lava brn hard              | 141  | 155 |
| basalt fractures bent red  | 155  | 174 |
| andacite basalt grey hard  | 174  | 177 |
| cinders red tan gray       | 177  |     |
| with pumice                |      | 210 |
| red cinder with grey liner | 210  |     |
| white pumice               |      | 220 |
| brown sandstone            | 220  | 260 |
| brown sandstone            | 260  | 280 |
| conglomerate brown&black   | 280  | 290 |
| conglomerate brown bounded | 280  | 290 |
| conglomerate moneanquan    | 480  | 551 |
| ansacite white hard        | 551  | 560 |
| plumice white              | 560  | 567 |

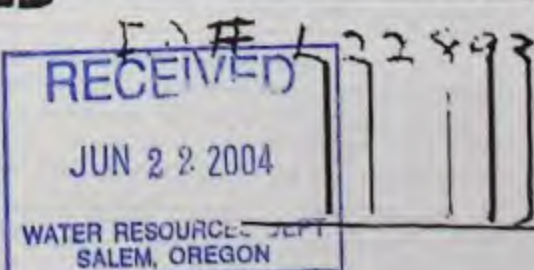
Date started 3-19-98 Completed 4-22-98

(unbonded) Water Well Constructor Certification:  
I certify that the work I performed on the construction, alter  
abandonment of this well is in compliance with Oregon well const  
standards. Materials used and information reported above are true to



desc  
5160

MAY 27 1998













RECEIVED  
OCT 22 1991

Oregon

W & H PACIFIC INC

WATER  
RESOURCES  
DEPARTMENT

October 18, 1991

Eagle Ridge Development Corporation  
P.O. Box 1215  
Redmond, OR 97756

Reference: File G-12429, Permit G-11313

The Department has reviewed your request to change the location of the wells as authorized under your permit G-11313.

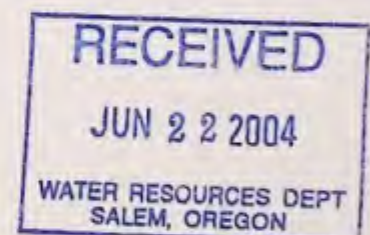
Staff has concluded that your proposal to place the wells no closer than 2000 feet from the Deschutes River is acceptable and will be allowed under your permit.

If you have any questions, please contact me.

Sincerely,

Stephen C. Brown  
Senior Water Rights Specialist  
Field Operations Division

cc: Mr. Tom Walker, PE, CWRE  
Mr. Donn Miller, WRD  
Mr. Bob Main, Region Manager



0550



3850 Portland Rd NE  
Salem, OR 97310  
(503) 378-3739  
FAX (503) 378-8130



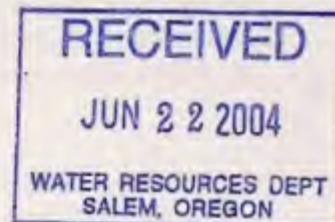




April 28, 1992

OWRD FILE # G-12905

Mr. Steve Brown  
Oregon Water Resources Department  
3850 Portland Road, N.E.  
Salem, Oregon 97310



Re: Eagle Ridge Development Corporation  
Water Right Appropriation Application  
526-0101

Dear Steve:

I have enclosed a groundwater appropriation application, four copies of an application map, and a land use compatibility statement for a proposed expansion of water rights. In addition, I have enclosed an application fee in the amount of \$450.00. The application fee was calculated as noted below:

|                                                        |                  |
|--------------------------------------------------------|------------------|
| Examination Fee                                        | \$ 200.00        |
| Initial One CFS Quasi-Municipal Use                    | \$ 100.00        |
| Each Additional CFS Quasi-Municipal Use @ \$50.00/each | \$ 150.00        |
| <b>Total</b>                                           | <b>\$ 450.00</b> |

On August 12, 1991, Eagle Ridge Development Corporation was granted permit number G-11313 to appropriate groundwater for golf course irrigation and associated golf course commercial activities. Subsequently, two wells have been constructed and land use approvals have been obtained for residential development. A copy of our irrigation permit and well logs are enclosed for your review and use. A hydrogeologic study including pump test results for two wells is also enclosed.

At this time, Eagle Ridge Development Corporation is completing construction of the initial 18-hole golf course. Based upon pump test results from the initial production well, an adequate water supply will be available for irrigation and initial residential development. When the second 18-hole golf course is constructed, we expect to drill an additional well to provide the necessary irrigation and domestic supplies.

Well locations shown on the attached application map are intended to coincide with permit number G-11313, and the subsequent OWRD correspondence dated October 18, 1991. No wells in addition to these on permit G-11313 are proposed.

We have designated a quasi-municipal use on the enclosed application and intend water to be utilized for domestic, commercial, landscape irrigation, fire protection, construction watering, lake maintenance, swimming pools, and similar resort related purposes.





Mr. Steve Brown

April 28, 1992

Page 2

In addition, we expect to construct a pipeline between the Eagle Ridge well and the existing Eagle Crest Resort to allow a reliable back-up supply for both projects. Typically, the back-up supply will only be utilized periodically, but provides a significant reliability factor for all residents. For this reason, I have included the Eagle Crest Resort project, and other adjacent lands, that are expected to be within the domestic water system service district.

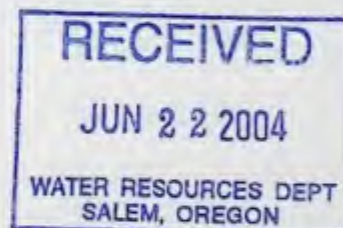
The existing and proposed Eagle Ridge wells will be utilized for both irrigation and domestic purposes, through appropriate valving and piping networks. Approved backflow prevention assemblies will be provided at all connection points to irrigation systems. All use of domestic water will be regulated by the Oregon Health Division and the Public Utility Commission.

Please consider the enclosed documents and contact me with any questions or needs for additional information. Your assistance is sincerely appreciated and your advice solicited.

Very truly yours,  
W&H Pacific

Thomas A. Walker, P.E., C.W.R.E.  
Senior Associate

cc: Bill Lyche





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OCT 22 1991

W & H PACIFIC INC.

Oregon

WATER  
RESOURCES  
DEPARTMENT

October 18, 1991

Eagle Ridge Development Corporation  
P.O. Box 1215  
Redmond, OR 97756

Reference: File G-12429, Permit G-11313

The Department has reviewed your request to change the location of the wells as authorized under your permit G-11313.

Staff has concluded that your proposal to place the wells no closer than 2000 feet from the Deschutes River is acceptable and will be allowed under your permit.

If you have any questions, please contact me.

Sincerely,

Stephen C. Brown  
Senior Water Rights Specialist  
Field Operations Division

cc: Mr. Tom Walker, PE, CWRE  
Mr. Donn Miller, WRD  
Mr. Bob Main, Region Manager

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JUN 22 2004

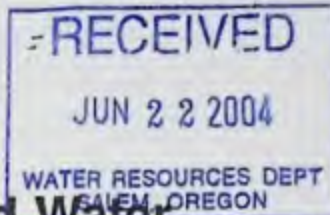
WATER RESOURCES DEPT  
SALEM, OREGON



3850 Portland Rd NE  
Salem, OR 97310  
(503) 378-3739  
FAX (503) 378-8130



Application No. \_\_\_\_\_



State of Oregon  
WATER RESOURCES DEPARTMENT

# Application for a Permit to Appropriate Ground Water

Applicant(s) Eagle Ridge Development Corporation  
(Please print or type - use dark ink)

Mailing Address: P.O. Box 1215  
Redmond, Oregon 97756 (503) 923-0807  
City State Zip Daytime Phone No.

I (We) make application for a permit to appropriate the following described ground waters of the State of Oregon:

1. **THE DEVELOPMENT** (number of wells, tile lines, infiltration galleries, etc.): The development  
is expected to include the expansion of use for two existing wells and one proposed  
well.

If development is less than one mile from a natural stream, give the following:

Distance from development to stream: 2,000 feet minimum

Elevation difference between streambed and development: + 300 feet

NOTE: Wells must be constructed according to standards set by the department for the construction and maintenance of water wells. If the well is already constructed, please enclose a copy of the well driller's log with this application, and skip to Section 2 below.

Existing Well #2 and Proposed Well #3: 17"  
Diameter of well: Existing Well #1: 8" Depth in feet: 800 feet

Type and size of well casing: 14" casing/6" casing No. of feet: 800 feet

Estimated depth to water: 520 feet

Type of access port or measuring device: Air tube and standard casing vent.

Wells to be drilled by: Staco Well Services, Inc.

Address: 220 Academy Street Mt. Angel, Oregon 97362

If the water well is flowing artesian, describe your water control and conservation works: Based  
upon completion of wells on this property and review of well logs in the vicinity,  
artesian flow is not expected.

2. **TOTAL AMOUNT OF WATER** to be applied to beneficial use: 4.01 cubic feet per  
second, OR 1,800 gallons per minute. If water is to be used from more than one  
ground water source, give the quantity of water from each: Existing well number one: .45 cfs,  
Existing well number two: 1.78 cfs, and proposed well number three: 1.78 cfs.



3. **INTENDED USE(s) OF WATER:** Quasi-Municipal

If for more than one use, give the quantity of water from each source for each use; \_\_\_\_\_

If for **DOMESTIC** use, state the number of households to be supplied; \_\_\_\_\_

If for **MUNICIPAL OR QUASI-MUNICIPAL** use, state the present population to be served, and an estimate of the future requirements; (List population projections, water needs, anticipated areas to be provided water.) The proposed domestic water supply system will serve an estimated 900 dwelling units in the proposed expansion of the Eagle Crest Resort and 42 dwellings in the existing Cline Falls Oasis subdivision, provide a reliable backup supply for the + 420 dwelling units at the existing Eagle Crest Resort, and serve recreation, commercial landscape irrigation, fire protection, and construction uses.

If for **MINING** use, state the nature (gold, silver, etc.) of the mines to be served; \_\_\_\_\_

If for **IRRIGATION**, or other land area use, state the **TOTAL** number of acres to be developed under each use;

Irrigation \_\_\_\_\_

Other (describe) \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

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SALEM, OREGON**

4. **DESCRIPTION OF WATER DELIVERY SYSTEM:** Include dimensions and type of construction of diversion works, length and dimensions of supply ditches or pipelines, size and type of pump and motor. If for irrigation, describe the type of system (i.e., flood, wheel line, hand line, drip, other).

The system is ultimately expected to include two 250 HP line shaft turbine well pumps, one 50 HP submersible well pump, a + 300,000 gallon storage reservoir, approximately 50,000 lineal feet of 6", 8", 10", and 12" distribution main, and the associated valves, hydrants, and appurtenances.

5. **PROJECT SCHEDULE:** (List month and year)

Proposed date construction work will begin April, 1992

Proposed date construction work will be completed October, 1997

Proposed date water use will be completed October, 2002

**NOTE:** A map prepared by a Certified Water Right Examiner (CWRE) and a complete legal description of the subject property are required under ORS 537.140 and OAR 690 as a part of your application. The legal description may be copied from your deed, title insurance policy, or land sales contract.



6. a) In the event any deficiencies are noted involving the application map enclosed herein, please return the map with instructions for correction to (check one):

| Applicant | X CWRE | Other (Identify in REMARKS section) |
|-----------|--------|-------------------------------------|
|-----------|--------|-------------------------------------|

- b) In the event any deficiencies are noted involving the application, please return the application with instructions for correction to (check one):

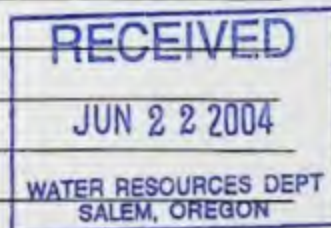
| <i>Applicant</i> | <i>X CWRE</i> | <i>Other (Identify in REMARKS section)</i> |
|------------------|---------------|--------------------------------------------|
|------------------|---------------|--------------------------------------------|

7. Are all lands involved (including the proposed diversion site, place of use, and access for conveying the water) under your ownership? NO. If not, list in the REMARKS section below, or on an attached sheet, the names and mailing addresses of the legal owners of all property involved in the proposed development.

*NOTE: Prior to receiving a certificate of water right, the permit holder must submit to the Water Resources Department the results of a pump test meeting the department's standards. The Director will require water level or pump test results every ten years thereafter.*

REMARKS:

Please reference the attached application map for a listing of all land owners and their mailing address.



*NOTE: The permit, when issued, is for the beneficial use of water without waste. By law, the land use associated with this water use must be in compliance with statewide land-use goals and any local acknowledged land-use plan. It is possible the land use you propose may not be allowed if it is not in keeping with the goals and acknowledged plan. Your city or county planning agency can advise you about the land-use plan in your area.*

William O'Leary  
Signature of Applicant

April 28, 1992  
Date

Signature of Co-Applicant, if any

Date \_\_\_\_\_



EAGLE CREST PARTNERS LTD. & AFFILIATES REDMOND, OREGON 97756

0031486

| DATE       | INVOICE NO. | DESCRIPTION        | INVOICE AMOUNT | DEDUCTION | BALANCE |
|------------|-------------|--------------------|----------------|-----------|---------|
| 4-30-92    | 430         | CIP E/R LOTS       | 450.00         | .00       | 450.00  |
|            |             |                    | <b>TOTALS</b>  | .00       | 450.00  |
| CHECK DATE | 4-30-92     | CHECK NUMBER 32486 |                |           |         |

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SALEM, OREGON

PLEASE DETACH AND RETAIN THIS PORTION FOR YOUR RECORDS.



EAGLE CREST PARTNERS LTD. & AFFILIATES  
P.O. BOX 1215 • 923-2453  
REDMOND, OREGON 97756

First Interstate Bank of Oregon, N.A.  
Bend Branch P.O. Box 1191  
Bend, OR 97709  
24-12  
1230

0031486

Pay: Four hundred fifty dollars and no cents

CHECK NO. 31486 \$\*\*\*\*\*450.00\*\*  
DATE April 30, 1992

PAY  
TO THE  
ORDER  
OF

OREGON WATER RESOURCES  
DIVISION

*Paul E. Andrew*  
*Hawai Miller*

AUTHORIZED SIGNATURE

71777337 005747 911\*







## NOTICE OF BEGINNING OF CONSTRUCTION

I, Eagle Ridge Development Corporation, the holder of Permit No. G-11313

do appropriate the public waters of the state of Oregon, began the actual construction of the works described therein on the 17th day of September, 1991

Remarks: TWO PILOT WELLS AND ONE PRODUCTION WELL HAVE BEEN CONSTRUCTED AND  
AND TESTED. THE PRODUCTION WELL CONSTRUCTION INCLUDES 800 FEET OF 14 INCH  
CASING IN A 17 INCH HOLE.

The appropriator must state the manner of beginning of construction, the amount of work completed and the type of equipment acquired for the water system up to the date of this statement, and any additional information which shows a substantial beginning of construction as authorized by your permit.

IN WITNESS WHEREOF, I have hereunto set my hand this 20 day of March, 1992

P.O. BOX 1215 REDMOND, OR 97756

(Signature of Applicant)

(Address)

Fill out, detach and mail to the Water Resources Department, Salem, OR 97310, when construction work is begun.

SP\*35587-690

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MAR 20 1992

W &amp; H PACIFIC INC

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SALEM, OREGON









920 SW Emkay, Suite C100  
Bend, Oregon 97702-1041  
541.388.4255  
Fax 541.388.4229

April 14, 2004

Oregon Water Resources Department  
Measurement and Reporting Section  
725 Summer Street, NE, Suite A  
Salem, OR 97301-1271

RE: Eagle Crest Resort  
Groundwater Wells  
Static Water Level Reporting  
WHP File # 30036  
OWRD Application No. G-12905  
OWRD Permit No. G-11762



Gentlemen/Ladies:

Ground Water Permit G-11762 stipulates recording of static water levels on an annual basis. I have compiled static water level readings for all Eagle Crest Resort wells for your review and use.

As in past years, we have provided static water level measurements for multiple wells at Eagle Crest. Water level readings have been obtained from existing air lines and pressure gauges. In addition, we have checked the measurements in some wells with a second air gauge reading. In all cases, the static water level measurements were taken from the top of the existing well casing. Static water level measurements in all wells are similar to conditions reported in past years. Static water level measurements were obtained in March 2004.

The following table summarizes our static water level measurements and information on each well.

**EAGLE CREST WELLS  
WATER LEVEL REPORTING**

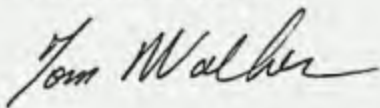
| Owner's Well Designation | Original Owner         | Well Log Startcard # | Well Depth | Date Drilled | Casing Size | Driller                | Permit #/<br>Application # | Static Water Level | Idle Period |
|--------------------------|------------------------|----------------------|------------|--------------|-------------|------------------------|----------------------------|--------------------|-------------|
| ECI Well #2              | Neil Chase             | ---                  | 330'       | 8/20/79      | 10"         | Lewis & Clark Drilling | G-10530<br>G-11387         | 243'               | 72 hrs      |
| ECI Well #3              | Eagle Crest Resort     | 5310/8050            | 290'       | 8/18/89      | 12"         | Crawford Well Drilling | G-10530<br>G-11387         | 246'               | 96 hrs      |
| ECII Well #6             | Eagle Ridge Dev. Corp. | 36697                | 800'       | 2/20/92      | 14"         | STACO                  | G-11762<br>G-12905         | 523'               | 72 hrs      |



|                   |                                 |        |      |          |     |       |                    |      |                   |
|-------------------|---------------------------------|--------|------|----------|-----|-------|--------------------|------|-------------------|
| ECII<br>Well #7   | Eagle<br>Ridge<br>Dev.<br>Corp. | 34267  | 800' | 10/11/91 | 6"  | STACO | G-11762<br>G-12905 | 523' | Several<br>Months |
| ECII<br>Well #8   | Eagle<br>Ridge<br>Dev.<br>Corp. | 89252  | 600' | 4/22/98  | 14" | STACO | G-11762<br>G-12905 | 312' | 72 hrs            |
| EC III<br>Well #9 | Eagle<br>Crest,<br>Inc.         | 111252 | 736  | 11/15/01 | 14" | STACO | G-13819<br>G-14857 | 508' | 72 hrs            |

Please consider my comments and never hesitate to contact me if you have questions or need additional information. To the best of my knowledge, the information in this letter is accurate, and at the time of measurement representative of the static water level in the aquifer. The intent of this submittal is to meet all reporting obligations for Eagle Crest water rights. The water rights are critical to the operations of the Eagle Crest Destination Resort and cannot be jeopardized in any way. Please contact us immediately if you have any questions or concerns with Eagle Crest water rights. Thank you for your review and assistance.

Sincerely,  
W&H PACIFIC, INC.



Thomas A. Walker, P.E., C.W.R.E.  
Vice President

Cc: Alan VanVliet











**W&H PACIFIC**

920 SW Emkay, Suite C100  
Bend, Oregon 97702

## TRANSMITTAL

To: Oregon Water Resources Department  
Company: Measurement and Reporting Section  
Address: 725 Summer Street, NE, Suite A  
City/State: Salem, OR 97301-1271  
Phone:  
Fax:

Date: April 26, 2004  
Project Number: 30121  
Project Name: Eagle Crest Resort  
Re: Groundwater Wells  
Annual Water Use

From: Thomas A. Walker, P.E., C.W.R.E.  
Phone: (541) 388-4255  
Fax: (541) 388-4229

**Confidentiality Notice:** This facsimile is intended only for the use of the individual and exempt from disclosure under applicable law. If the reader of this message is not the intended recipient, you are hereby notified that the unauthorized dissemination, distribution or copying of this communication, or the taking of any action in reliance on the contents of this information is strictly prohibited. If you have received this facsimile in error, please notify us immediately by telephone (collect). Thank you.

**We are sending:**

☒ Attached

☐ Facsimile

# Of Pages Including Cover

**These Are Transmitted:**

☒ For Your Info/File

☐ As Requested

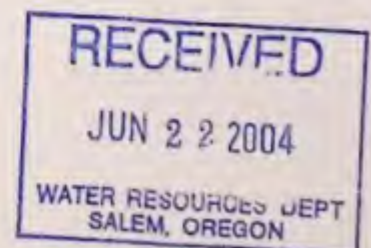
☐ For Review & Comment

**Copied To:**

Alan VanVliet

| Copies | Description                                       |
|--------|---------------------------------------------------|
| 1      | Eagle Crest Resort Annual Water Use Summary       |
| 1      | W & H Pacific Correspondence Dated April 14, 2004 |
|        |                                                   |
|        |                                                   |

Comments: My files are not complete and we are not certain if the annual water use report for the Eagle Crest resort has been submitted. Rather than risk not submitting required information, I have enclosed a summary of water use for all operating wells. The attached letter of April 14<sup>th</sup> provides a description of each well and documents the applicable water right for each well. I apologize if this transmittal is redundant. Thanks very much for your assistance.



Civil and Structural Engineering ♦ Landscape Architecture  
Planning ♦ Surveying and Mapping

Washington ♦ Oregon ♦ Idaho



| WELL   | ECMA & CBUC Water Usage |            |            | GALLONS    |            |
|--------|-------------------------|------------|------------|------------|------------|
|        | 2                       | 3          | 6          | 7          | 8          |
| Oct-02 | 9,539,000               | 652,000    | 16,717,000 | 0          | 5,562,309  |
| Nov-02 | 1,636,000               | 0          | 564,100    | 0          | 337,641    |
| Dec-02 | 1,166,000               | 0          | 2,424,000  | 0          | 275,996    |
| Jan-03 | 503,000                 | 2,669,500  | 2,424,000  | 0          | 275,996    |
| Feb-03 | 624,000                 | 661,243    | 2,061,000  | 0          | 137,396    |
| Mar-03 | 1,972,000               | 4,451,200  | 10,649,000 | 0          | 2,439,657  |
| Apr-03 | 4,855,000               | 328,000    | 13,209,000 | 509,400    | 2,811,710  |
| May-03 | 11,209,000              | 4,822,900  | 22,861,000 | 13,047,000 | 6,567,979  |
| Jun-03 | 16,314,000              | 12,765,600 | 22,701,000 | 9,485,100  | 23,216,421 |
| Jul-03 | 19,702,000              | 21,217,100 | 26,091,000 | 11,145,100 | 35,709,653 |
| Aug-03 | 19,582,000              | 13,874,700 | 19,295,000 | 4,861,900  | 26,439,115 |
| Sep-03 | 16,727,000              | 14,535,600 | 17,865,000 | 2,999,200  | 23,081,714 |

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**INSPECTION REPORT**

**Project:** Eagle Ridge Well  
Well Test  
526-0101

**Date:** March 17, 1992

**Notes By:** Thomas A. Walker, P.E. *TAW*

**Contractor:** A&H Pump

**Distribution:** Bill Lyche

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Well yield testing on the Eagle Ridge production well commenced this morning. Nancy Speaker, with David Newton & Associates, was present to direct monitoring activities, Bill Lyche was present, and three A&H employees were also on the site.

All pumping was completed in the 14 inch diameter production well, completed by Staco Well Services Inc. A&H utilized a diesel engine with a right angle drive and a Verti-Line 12 RM, 12 stage, "A" trim, series 1110 vertical turbine pump. Contractors used a micrometer propeller meter for flow measurements and standard well probes for water level measurements.

Water level measurements at the production well, were obtained with a well probe, inserted in a 3/4 inch PVC tubing. In addition, water level measurements were obtained from the original pilot hole, 35 feet to the south.

The pump was set at 646 feet.

I arrived at the site at 8:30 am and measured the static water level at 518.85 feet below the top of the casing. Contractors later measured the static level at 519.3 feet, measured at a point on the well head housing. This point on the well head housing was the basis for all recorded measurements during the test. This point on the housing is 13 inches above the top of the well casing.

The initial test started at 9:30 am. The flow rate was measured at 700 gpm after the column filled and pumping reached a steady state. An initial draw down of 4 1/2 inches was observed, followed by a recovery to approximately 3 inches. The initial test however, was interrupted at approximately 9:48 am, apparently due to stretch in the column and increased resistance in the pump bowls. Contractors adjusted the bowl clearance and then restarted the pump test at 10:00 am.

The initial flow rate for the second test was 750 gpm. We observed a draw down of approximately 4 inches. At 10:12 am, the flow rate was increased to 1,050 gpm. The draw down increased to 1 foot 8 inches and remained steady. When I left the project at 10:50 am, the draw down remained steady at 1 foot 8 inches, and the flow rate at 1,050 gpm.



**Eagle Ridge Well Test  
Inspection Report  
Page 2**

The contractors collected a sample of water at the initial start up today and observed no evidence of sediment, sand, or grit. Jack Abbas indicated some red cinder material was observed for approximately the first minute after yesterdays startup. Jack also indicated some surging of the well occurred as the pump was initially started. Again, the discharge cleared up after approximately one minute of run time.

We discussed the duration of the pump test. It was agreed the test will be terminated after 8 or 9 hours, if the draw down remains steady. Tentatively, Jack Abbas will increase the flow rate to approximately 1,200 gpm at 6:00 pm tonight. He will monitor water levels in the production well and the pilot well for approximately 1 hour and then end the test.

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PUMPED WELL - PUMP ON

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SALEM, OREGON

Page 1 of 1

AQUIFER TEST DATA

Owner \_\_\_\_\_ Address EAGLE RIDGE County DESCHUTES State OR

3/18/92

Company performing test ASH

Measured by \_\_\_\_\_

Well No. 1

Distance from pumping well \_\_\_\_\_

Type of test CONSTANT DISCHARGE

Test No. 1

Measuring equipment \_\_\_\_\_

| Time Data                           |            |                              |                               | Water Level Data                   |                          |             |                               | Discharge Data                       |                      | Comments on factors affecting test data              |
|-------------------------------------|------------|------------------------------|-------------------------------|------------------------------------|--------------------------|-------------|-------------------------------|--------------------------------------|----------------------|------------------------------------------------------|
| ump on: Date _____ Time _____ (t.)  |            |                              |                               | Static water level <u>519.3'</u>   |                          |             |                               | How Q measured _____                 |                      |                                                      |
| ump off: Date _____ Time _____ (t') |            |                              |                               | Measuring point _____              |                          |             |                               | Depth of pump/air line _____         |                      |                                                      |
| Duration of aquifer test: _____     |            |                              |                               | Elevation of measuring point _____ |                          |             |                               | Previous pumping? Yes _____ No _____ |                      |                                                      |
| Pumping _____ Recovery _____        |            |                              |                               |                                    |                          |             |                               | Duration _____ End _____             |                      |                                                      |
| Date                                | Clock time | Time since pump started<br>t | Time since pump stopped<br>t' | Water level measurement            | Correction or conversion | Water level | Water level change<br>s or s' | Discharge measurement                | Rate                 |                                                      |
|                                     | 10:00      | 0                            |                               | 520' 4"                            |                          |             |                               |                                      | 700 gpm              | * ALL MEASUREMENTS<br>1 3/4" ABOVE TOP OF<br>Casing. |
|                                     | 10:01      | 1                            |                               | 520'                               |                          |             |                               |                                      |                      |                                                      |
|                                     | 10:02      | 2                            |                               | 520 7/8"                           |                          |             |                               |                                      |                      |                                                      |
|                                     | 10:03      | 3                            |                               | 520' 6 1/2"                        |                          |             |                               |                                      |                      |                                                      |
|                                     | 10:04      | 4                            |                               | 7"                                 |                          |             |                               |                                      |                      |                                                      |
|                                     | 10:05      | 5                            |                               | 6 1/2"                             |                          |             |                               |                                      |                      |                                                      |
|                                     | 06         | 6                            |                               | 7"                                 |                          |             |                               |                                      |                      |                                                      |
|                                     | 07         | 7                            |                               | 6 3/4"                             |                          |             |                               |                                      |                      |                                                      |
|                                     | 08         | 8                            |                               | 7"                                 |                          |             |                               |                                      |                      |                                                      |
|                                     | 09         | 9                            |                               | 6 3/4"                             |                          |             |                               |                                      |                      |                                                      |
|                                     | 10         | 10                           |                               | 7 1/2"                             |                          |             |                               |                                      |                      |                                                      |
|                                     | 11         | 11                           |                               | 6 3/4"                             |                          |             |                               |                                      |                      |                                                      |
|                                     | 12         | 12                           |                               | 7 1/2"                             |                          |             |                               | 1050 gpm                             | INCREASE TO 1050 GPM |                                                      |
|                                     | 13         | 13                           |                               | 11"                                |                          |             |                               |                                      |                      |                                                      |
|                                     | 14         | 14                           |                               | 10 3/4"                            |                          |             |                               |                                      |                      |                                                      |
|                                     | 10:15      | 15                           |                               | 10 1/4"                            |                          |             |                               |                                      |                      |                                                      |
|                                     | 5 min      | 20                           |                               | 520' 11 1/4"                       |                          |             |                               |                                      |                      |                                                      |
|                                     |            | 25                           |                               | 520' 10 1/4"                       |                          |             |                               |                                      |                      |                                                      |
|                                     |            | 30                           |                               | 520' 11"                           |                          |             |                               |                                      |                      |                                                      |
|                                     |            | 35                           |                               | 11 1/4"                            |                          |             |                               |                                      |                      |                                                      |
|                                     |            | 40                           |                               | -                                  |                          |             |                               |                                      |                      |                                                      |
|                                     |            | 45                           |                               | 11"                                |                          |             |                               |                                      |                      |                                                      |
|                                     |            | 50                           |                               | 11"                                |                          |             |                               |                                      |                      |                                                      |
|                                     |            | 55                           |                               | 11 1/2"                            |                          |             |                               |                                      |                      |                                                      |
|                                     |            | 60                           |                               |                                    |                          |             |                               |                                      |                      |                                                      |
|                                     | 30 min     |                              |                               | 11"                                |                          |             |                               |                                      |                      |                                                      |
|                                     |            | 90                           |                               | 11 1/4"                            |                          |             |                               |                                      |                      |                                                      |
|                                     |            | 120                          |                               | 11 1/4"                            |                          |             |                               |                                      |                      |                                                      |
|                                     |            | 150                          |                               | 11 1/4"                            |                          |             |                               |                                      |                      |                                                      |

\* ALL MEASUREMENTS  
13 1/2" ABOVE TOP OF  
CASING.

INCREASE TO 1050 GPM



PUMPED WELL - PUMP ON

Page 2 of     

## AQUIFER TEST DATA

Owner                      Address EAGLE RIDGE County DESCHUTES State ORDate 3/18/92 Company performing test A & H Measured by                     Well No. 1- Distance from pumping well                      Type of test CONSTANT DISCHARGE Test No. 1Measuring equipment                     

| Time Data                                                                      |  | Water Level Data                                         |  | Discharge Data                                               |  | Comments on factors affecting test data |
|--------------------------------------------------------------------------------|--|----------------------------------------------------------|--|--------------------------------------------------------------|--|-----------------------------------------|
| Pump on: Date <u>          </u> Time <u>          </u> (t <sub>1</sub> )       |  | Static water level <u>                    </u>           |  | How Q measured <u>                    </u>                   |  |                                         |
| Pump off: Date <u>          </u> Time <u>          </u> (t <sub>2</sub> )      |  | Measuring point <u>                    </u>              |  | Depth of pump/air line <u>                    </u>           |  |                                         |
| Duration of aquifer test: Pumping <u>          </u> Recovery <u>          </u> |  | Elevation of measuring point <u>                    </u> |  | Previous pumping? Yes <u>          </u> No <u>          </u> |  |                                         |
|                                                                                |  |                                                          |  | Duration <u>          </u> End <u>          </u>             |  |                                         |

| Date | Clock time | Time since pump started<br>t | Time since pump stopped<br>t' | t/t' | Water level measurement<br>* | Correction or Conversion | Water level<br>s or s' | Discharge measurement | Rate     |  |
|------|------------|------------------------------|-------------------------------|------|------------------------------|--------------------------|------------------------|-----------------------|----------|--|
|      | 180        |                              |                               |      | 11 3/4                       |                          | 1:00                   |                       |          |  |
|      | 210        |                              |                               |      | 11 3/4                       |                          |                        |                       |          |  |
|      | 240        |                              |                               |      | 11 3/4                       |                          | 2:00                   |                       |          |  |
|      | 270        |                              |                               |      | 11 3/4                       |                          | 2:30                   |                       |          |  |
|      | 300        |                              |                               |      | 11 3/4                       |                          | 3:00                   |                       |          |  |
| HR   |            |                              |                               |      | 11 3/4                       |                          | 3:30                   |                       |          |  |
| ↓    | 6          |                              |                               |      | 11 3/4                       |                          | 4:00                   |                       |          |  |
|      | 7          |                              |                               |      | 11 3/4                       |                          | 4:30                   |                       |          |  |
|      | 8          |                              |                               |      | 11 3/4                       |                          | 5:00                   |                       |          |  |
|      | 9          |                              |                               |      | 11 3/4                       |                          | 5:30                   |                       |          |  |
|      | 10         |                              |                               |      | 11 3/4                       |                          | 6:00                   |                       |          |  |
|      | 11         |                              |                               |      | 121' 4"                      |                          | 6:02                   | —                     | 1200 GPM |  |
|      | 12         |                              |                               |      | 4 3/4                        |                          | 6:06                   |                       |          |  |
|      | 13         |                              |                               |      | 121' 1"                      |                          | 6:08                   |                       |          |  |
|      | 14         |                              |                               |      | 121' 1 1/2"                  |                          | 6:10                   |                       |          |  |
|      | 15         |                              |                               |      | 121' 1 1/2"                  |                          | 6:12                   |                       |          |  |
|      | 16         |                              |                               |      | 1 1/2"                       |                          | 6:14                   |                       |          |  |
|      | 17         |                              |                               |      | 1 1/2"                       |                          | 6:16                   |                       |          |  |
|      | 18         |                              |                               |      | 1 1/2"                       |                          | 6:18                   |                       |          |  |
|      | 19         |                              |                               |      | 1 1/2                        |                          | 6:25                   |                       |          |  |
|      | 20         |                              |                               |      | 1 1/2                        |                          | 6:30                   |                       |          |  |
|      | 21         |                              |                               |      | 1 1/2                        |                          | 6:35                   |                       |          |  |
|      | 22         |                              |                               |      | 1 1/2                        |                          | 6:40                   |                       |          |  |
|      | 23         |                              |                               |      | 1 1/2                        |                          | 6:45                   |                       |          |  |
|      | 24         |                              |                               |      | 1 1/2                        |                          | 6:50                   |                       |          |  |
|      |            |                              |                               |      | 121' 7 1/2                   |                          | 6:51                   | 1500                  | 6 PM     |  |
|      |            |                              |                               |      | 121' 5 1/2                   |                          | 6:56                   | 1500                  |          |  |
|      |            |                              |                               |      | 121' 6"                      |                          | 6:58                   | 1500                  |          |  |
|      |            |                              |                               |      | 121' 5 1/2                   |                          | 7:00                   | STOPPED               |          |  |

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Page 1 of 1

Observation Well - Pump ON

AQUIFER TEST DATA WATER RESOURCES DEPT  
SALEM, OREGON

Owner \_\_\_\_\_ Address EAGLE RIDGE County DOUGLASS State OR

Date 3/18/92 Company performing test ASH Measured by \_\_\_\_\_

Well No. \_\_\_\_\_ Distance from pumping well 50' Type of test CONSTANT DISCHARGE Test No. 1

Measuring equipment SW180 - 797

| Time Data                            |  |  |  | Water Level Data                   |  |  |  | Discharge Data                       |  |  |  | Comments on factors affecting test data |              |
|--------------------------------------|--|--|--|------------------------------------|--|--|--|--------------------------------------|--|--|--|-----------------------------------------|--------------|
| Pump on: Date _____ Time _____ (t)   |  |  |  | Static water level _____           |  |  |  | How Q measured _____                 |  |  |  |                                         | Section 642' |
| Pump off: Date _____ Time _____ (t') |  |  |  | Measuring point _____              |  |  |  | Depth of pump/air line <u>642'</u>   |  |  |  |                                         |              |
| Duration of aquifer test: _____      |  |  |  | Elevation of measuring point _____ |  |  |  | Previous pumping? Yes _____ No _____ |  |  |  |                                         |              |
| Pumping _____ Recovery _____         |  |  |  |                                    |  |  |  | Duration _____ End _____             |  |  |  |                                         |              |

| Time | Clock time | Time since pump started | Time since pump stopped | t/t' | Water level measurement | Correction or Conversion | Water level | Water level change s or s' | Discharge measurement | Rate |  |
|------|------------|-------------------------|-------------------------|------|-------------------------|--------------------------|-------------|----------------------------|-----------------------|------|--|
|      | 0          |                         |                         |      | 798.65                  |                          |             |                            | 700                   |      |  |
|      | 2          |                         |                         |      | 798.65                  |                          |             |                            |                       |      |  |
|      | 4          |                         |                         |      | 798.7                   |                          |             |                            |                       |      |  |
|      | 6          |                         |                         |      | 798.7                   |                          |             |                            |                       |      |  |
|      | 8          |                         |                         |      | 798.7                   |                          |             |                            |                       |      |  |
|      | 10         |                         |                         |      | 798.7                   |                          |             |                            |                       |      |  |
|      | 12         |                         |                         |      |                         |                          |             |                            |                       |      |  |
|      | 14         |                         |                         |      | 798.76                  |                          |             |                            |                       |      |  |
|      | 16         |                         |                         |      | 798.78                  |                          |             |                            |                       |      |  |
|      | 18         |                         |                         |      | 798.75                  |                          |             |                            |                       |      |  |
|      | 20         |                         |                         |      | 798.75                  |                          |             |                            |                       |      |  |
|      | 22         |                         |                         |      | 798.75                  |                          |             |                            |                       |      |  |
|      | 24         |                         |                         |      | 798.75                  |                          |             |                            |                       |      |  |
|      | 26         |                         |                         |      | 798.75                  |                          |             |                            |                       |      |  |
|      | 28         |                         |                         |      | 798.75                  |                          |             |                            |                       |      |  |
|      | 30         |                         |                         |      | 798.75                  |                          |             |                            |                       |      |  |
|      | 32         |                         |                         |      |                         |                          |             |                            |                       |      |  |
|      | 34         |                         |                         |      |                         |                          |             |                            |                       |      |  |
|      | 36         |                         |                         |      | 798.75                  |                          |             |                            |                       |      |  |
|      | 38         |                         |                         |      |                         |                          |             |                            |                       |      |  |
|      | 40         |                         |                         |      |                         |                          |             |                            |                       |      |  |
|      | 42         |                         |                         |      |                         |                          |             |                            |                       |      |  |
|      | 44         |                         |                         |      |                         |                          |             |                            |                       |      |  |
|      | 46         |                         |                         |      | 798.75                  |                          |             |                            |                       |      |  |
|      | 48         |                         |                         |      |                         |                          |             |                            |                       |      |  |
|      | 50         |                         |                         |      | 798.7                   |                          |             |                            |                       |      |  |
|      | 52         |                         |                         |      |                         |                          |             |                            |                       |      |  |
|      | 54         |                         |                         |      |                         |                          |             |                            |                       |      |  |
|      | 56         |                         |                         |      |                         |                          |             |                            |                       |      |  |

Section 642'

Pump STOPPED  
Change Pump Rate to

NOTE: THE WELL  
PROBE USED FOR  
THESE MEASUREMENTS  
HAD BEEN SPLICED.  
SUBTRACT 280.00 FT  
FROM ALL MEASUREMENTS.  
REFERENCE 3-24-92  
WHP FIELD VERIFICATION

Final



# Observation Well - Pump ON

Page 2 of     

## AQUIFER TEST DATA

Owner                      Address EAGLE RIDGE County                      State                     

ie 3/18/92 Company performing test A: N Measured by                     

Well No.                      Distance from pumping well 50' Type of test CONSTANT DISCHARGE Test No. 1

Measuring equipment                     

| Time Data                                                                |  |                                                          |  | Water Level Data                                                     |  |  |  | Discharge Data |  |  |  | Comments on factors affecting test data |
|--------------------------------------------------------------------------|--|----------------------------------------------------------|--|----------------------------------------------------------------------|--|--|--|----------------|--|--|--|-----------------------------------------|
| Pump on: Date <u>          </u> Time <u>          </u> (t.)              |  | Static water level <u>                    </u>           |  | How Q measured <u>                    </u>                           |  |  |  |                |  |  |  |                                         |
| Pump off: Date <u>          </u> Time <u>          </u> (t')             |  | Measuring point <u>                    </u>              |  | Depth of pump/air line <u>                    </u>                   |  |  |  |                |  |  |  |                                         |
| Duration of aquifer test <u>                    </u>                     |  | Elevation of measuring point <u>                    </u> |  | Previous pumping? Yes <u>          </u> No <u>          </u>         |  |  |  |                |  |  |  |                                         |
| Pumping <u>                    </u> Recovery <u>                    </u> |  |                                                          |  | Duration <u>                    </u> End <u>                    </u> |  |  |  |                |  |  |  |                                         |

| Date | Clock time | Time since pump started t | Time since pump stopped t' | t/t' | Water level measurement | Correction or Conversion | Water level | Water level change s or s' | Discharge measurement | Rate |  |
|------|------------|---------------------------|----------------------------|------|-------------------------|--------------------------|-------------|----------------------------|-----------------------|------|--|
|      |            | 58                        |                            |      |                         |                          |             |                            |                       |      |  |
|      |            | 60                        |                            |      | 798.73                  |                          |             |                            | 1050                  |      |  |
|      |            | 70                        |                            |      | 798.74                  | 11" 30                   |             |                            |                       |      |  |
|      |            | 80                        |                            |      |                         |                          |             |                            |                       |      |  |
|      |            | 90                        |                            |      |                         |                          |             |                            |                       |      |  |
|      |            | 100                       |                            |      |                         |                          |             |                            |                       |      |  |
|      | 12:00      | 120 1/2 hrs               |                            |      | 798.76                  |                          |             |                            |                       |      |  |
|      |            | 140                       |                            |      | 798.74                  |                          |             |                            |                       |      |  |
|      |            | 160                       |                            |      | 799.75                  | 1.00                     |             |                            |                       |      |  |
|      |            | 180                       |                            |      | 799.74                  | 1.30                     |             |                            |                       |      |  |
|      |            | 200                       |                            |      | 798.74                  | 2.00                     |             |                            |                       |      |  |
|      |            | 210                       |                            |      | 798.74                  | 2.30                     |             |                            |                       |      |  |
|      |            | 220                       |                            |      | 798.74                  | 3.00                     |             |                            |                       |      |  |
|      |            | 240                       |                            |      | 798.75                  | 3.30                     |             |                            |                       |      |  |
|      |            | 240                       |                            |      | 798.75                  | 4.00                     |             |                            |                       |      |  |
|      |            | 300                       |                            |      | 798.74                  | 4.30                     |             |                            |                       |      |  |
|      | xxxx       | 360                       |                            |      | 798.74                  | 5.00                     |             |                            |                       |      |  |
|      | HRS        | 7                         |                            |      | 798.74                  | 5.30                     |             |                            |                       |      |  |
|      |            | 8                         |                            |      | 798.74                  | 6.00                     |             |                            |                       |      |  |
|      |            | 9                         |                            |      | 798.74                  | 6.30                     |             |                            |                       |      |  |
|      |            | 10                        |                            |      | 798.74                  | 7.00                     |             |                            |                       |      |  |
|      |            | 11                        |                            |      |                         |                          |             |                            |                       |      |  |
|      |            | 12                        |                            |      |                         |                          |             |                            |                       |      |  |
|      |            | 13                        |                            |      |                         |                          |             |                            |                       |      |  |
|      |            | 14                        |                            |      |                         |                          |             |                            |                       |      |  |
|      |            | 15                        |                            |      |                         |                          |             |                            |                       |      |  |
|      |            | 16                        |                            |      |                         |                          |             |                            |                       |      |  |
|      |            | 17                        |                            |      |                         |                          |             |                            |                       |      |  |
|      |            | 18                        |                            |      |                         |                          |             |                            |                       |      |  |

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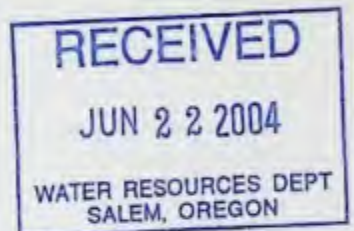
Eagle Ridge Well #7 (Pilot Hole #1)  
Pump Test Records

Monday - October 28, 1991

Prepared By: W&H Pacific, Inc.

Static Water Level Prior To Pump Test: 519.6

Pump Rate: 215 gpm - 220 gpm



| <u>Time</u> | <u>Pump Rate</u> | <u>Static Level</u> |
|-------------|------------------|---------------------|
| 0           | 220 gpm          | 519.6               |
| 1 Minute    | 215 gpm          | 519.9               |
| 2 Minute    | 215 gpm          | 519.6               |
| 3 Minute    | 215 gpm          | 519.6               |
| 15 Minute   | 215 gpm          | 519.6               |



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Well #8

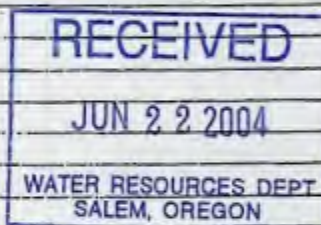
Page 1

## WELL TEST DATA SHEET

Tested by A & H Pump Service Static W/L 315.7 Date 5-5-98  
Owners Name Eagle Crest Well Location Ridge  
Drillers Name Staco Diameter of Well \_\_\_\_\_  
Casing Size 14" Bottom of Well \_\_\_\_\_  
Diameter of Bows 12" Diameter of Column \_\_\_\_\_  
Test Pump Set @ \_\_\_\_\_ (1) Air Line \_\_\_\_\_  
Flow Meter Used ☒ (2) Electric Probe ✓  
Flow Tube Used ☐ Orifice Dia. \_\_\_\_\_ (3) Sonic Sounder \_\_\_\_\_

Step  
drawdown  
Well #8  
POA #3

| TIME |     | TO WATER | HEAD   | FLOW   | ENGINE | REMARKS                     |
|------|-----|----------|--------|--------|--------|-----------------------------|
| Hr   | Min | Depth Ft | Inches | G.P.M. | R.P.M. |                             |
| 12   | 30  | 315.7    |        |        |        | Start Test                  |
|      | 32  | 322.7    |        |        |        |                             |
|      | 34  | 322.7    |        |        |        |                             |
|      | 36  | 322.7    |        |        |        |                             |
|      | 38  | 324      |        |        |        |                             |
|      | 40  | 324      |        |        |        |                             |
|      | 45  | 324.5    |        |        |        |                             |
|      | 50  | 324.5    |        |        |        |                             |
|      | 55  | 324.5    |        |        |        |                             |
| 1    | 00  | 324.7    |        |        |        |                             |
|      | 10  | 325      |        |        |        | Increased To 750 Gpm        |
|      | 20  | 325.3    |        |        |        |                             |
|      | 30  | 325.3    |        |        |        |                             |
|      | 40  | 325.3    |        |        |        |                             |
|      | 50  | 325.3    |        |        |        |                             |
| 2    | 00  | 325.3    |        |        |        |                             |
|      | 10  | 325.6    |        |        |        |                             |
|      | 20  | 326.6    |        |        |        |                             |
| 2    | 30  | 325.6    |        | 500    |        |                             |
|      | 32  | 326.5    |        |        |        | Increased Speed to 1000 Gpm |
|      | 34  | 328.7    |        |        |        |                             |
|      | 36  | 329.5    |        |        |        |                             |
|      | 38  | 329.5    |        |        |        |                             |
|      | 40  | 329.5    |        |        |        |                             |
|      | 45  | 329.5    |        |        |        |                             |
|      | 50  | 330      |        |        |        |                             |
|      | 55  | 330      |        |        |        |                             |
| 3    | 00  | 330.3    |        |        |        |                             |
|      | 10  | 330.5    |        |        |        |                             |
|      | 20  | 330.4    |        |        |        |                             |
|      | 30  | 330.7    |        |        |        |                             |
|      | 40  | 330.6    |        |        |        |                             |
|      | 50  | 330.9    |        |        |        |                             |
| 4    | 00  | 331      |        |        |        |                             |
|      | 10  | 331      |        |        |        |                             |
|      | 20  | 331      |        |        |        |                             |
| 4    | 30  | 331      |        | 750    |        |                             |
|      | 32  | 335      |        | 1000   |        |                             |





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Page 2

## WELL TEST DATA SHEET

Tested by A & H Pump Service Static W/L 315.7 Date 5-5-99  
Owners Name Eagle Crest Well Location Ridge  
Drillers Name Staco Diameter of Well \_\_\_\_\_  
Casing Size \_\_\_\_\_ Bottom of Well \_\_\_\_\_  
Diameter of Borehole 12" Diameter of Column 8"  
Test Pump Set @ 443 Bottom of Pump (1) Air Line \_\_\_\_\_ Ft.  
Flow Meter Used ☒ (2) Electric Probe ☒  
Flow Tube Used ☐ (3) Sonic Sounder \_\_\_\_\_  
Orifice Dia. \_\_\_\_\_

| TIME |     | TO WATER | HEAD   | FLOW            | ENGINE | REMARKS                                                                                                                                                                                                                               |
|------|-----|----------|--------|-----------------|--------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Hr   | Min | Depth Ft | Inches | G.P.M.          | R.P.M. |                                                                                                                                                                                                                                       |
| 4    | 34  | 335      |        |                 |        | <div style="border: 1px solid black; padding: 5px; text-align: center;"> <b>RECEIVED</b><br/><br/> <b>JUN 22 2004</b><br/><br/>                     WATER RESOURCE DEPT<br/>                     SALEM, OREGON                 </div> |
|      | 36  | 335.7    |        |                 |        |                                                                                                                                                                                                                                       |
|      | 38  | 335.7    |        |                 |        |                                                                                                                                                                                                                                       |
|      | 40  | 336.2    |        |                 |        |                                                                                                                                                                                                                                       |
|      | 45  | 336.8    |        |                 |        |                                                                                                                                                                                                                                       |
|      | 50  | 337.2    |        |                 |        |                                                                                                                                                                                                                                       |
|      | 55  | 337.6    |        |                 |        |                                                                                                                                                                                                                                       |
| 5    | 00  | 338      |        |                 |        |                                                                                                                                                                                                                                       |
|      | 10  | 338      |        |                 |        |                                                                                                                                                                                                                                       |
|      | 20  | 338      |        |                 |        |                                                                                                                                                                                                                                       |
| 5    | 30  | 338      |        |                 |        | Increased Speed to 1250 Gpm                                                                                                                                                                                                           |
|      | 40  | 338      |        |                 |        |                                                                                                                                                                                                                                       |
|      | 50  | 338      |        |                 |        |                                                                                                                                                                                                                                       |
| 6    | 00  | 338      |        |                 |        |                                                                                                                                                                                                                                       |
|      | 10  | 338      |        |                 |        |                                                                                                                                                                                                                                       |
|      | 20  | 338      |        | 1000            |        |                                                                                                                                                                                                                                       |
| 6    | 30  | 338      | 1000   | <del>1000</del> |        |                                                                                                                                                                                                                                       |
|      | 32  | 343      | 1250   | <del>1000</del> | 1250   |                                                                                                                                                                                                                                       |
|      | 34  | 344      |        |                 |        |                                                                                                                                                                                                                                       |
|      | 36  | 344.7    |        |                 |        |                                                                                                                                                                                                                                       |
|      | 38  | 345.3    |        |                 |        | Increased Speed to 1550 Gpm                                                                                                                                                                                                           |
|      | 40  | 345.3    |        |                 |        |                                                                                                                                                                                                                                       |
|      | 45  | 345.3    |        |                 |        |                                                                                                                                                                                                                                       |
|      | 50  | 345.3    |        |                 |        |                                                                                                                                                                                                                                       |
|      | 55  | 345.7    |        |                 |        |                                                                                                                                                                                                                                       |
| 7    | 00  | 346      |        |                 |        |                                                                                                                                                                                                                                       |
|      | 10  | 348      |        |                 |        |                                                                                                                                                                                                                                       |
|      | 20  | 348.2    |        |                 |        |                                                                                                                                                                                                                                       |
| 7    | 30  | 348.7    |        |                 |        |                                                                                                                                                                                                                                       |
|      | 40  | 348.9    |        |                 |        |                                                                                                                                                                                                                                       |
|      | 50  | 349.1    |        |                 |        | Increased Speed to 1550 Gpm                                                                                                                                                                                                           |
| 8    | 00  | 349.2    |        |                 |        |                                                                                                                                                                                                                                       |
|      | 10  | 349.4    |        |                 |        |                                                                                                                                                                                                                                       |
|      | 20  | 349.2    |        |                 |        |                                                                                                                                                                                                                                       |
| 8    | 30  | 349.2    | 1250   | 1250            |        |                                                                                                                                                                                                                                       |
|      | 32  | 354      | 1550   | 1550            |        |                                                                                                                                                                                                                                       |
|      | 34  | 355      |        |                 |        |                                                                                                                                                                                                                                       |
|      | 36  | 355.5    |        |                 |        |                                                                                                                                                                                                                                       |



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## WELL TEST DATA SHEET

Tested by A & H Pump Service Static W/L \_\_\_\_\_ Date \_\_\_\_\_  
 Owners Name \_\_\_\_\_ Well Location \_\_\_\_\_  
 Drillers Name \_\_\_\_\_ Diameter of Well \_\_\_\_\_  
 Casing Size \_\_\_\_\_ Bottom of Well \_\_\_\_\_  
 Diameter of Bore \_\_\_\_\_ Diameter of Column \_\_\_\_\_  
 Test Pump Set @ \_\_\_\_\_ (1) Air Line \_\_\_\_\_ Ft.  
 Flow Meter Used ☐ (2) Electric Probe \_\_\_\_\_  
 Flow Tube Used ☐ Orifice Dia. \_\_\_\_\_ (3) Sonic Sounder \_\_\_\_\_

| TIME |     | TOWATER  | HEAD   | FLOW   | ENGINE | REMARKS |
|------|-----|----------|--------|--------|--------|---------|
| Hr   | Min | Depth Ft | Inches | G.P.M. | R.P.M. |         |
| 8    | 38  | 355.8    |        | 1550   |        |         |
|      | 40  | 356.2    |        |        |        |         |
|      | 45  | 358.4    |        |        |        |         |
|      | 50  | 358.7    |        |        |        |         |
|      | 55  | 358.6    |        |        |        |         |
| 9    | 00  | 359.4    |        |        |        |         |
|      | 10  | 359.3    |        |        |        |         |
|      | 20  | 359.4    |        |        |        |         |
| 9    | 30  | 359.5    |        |        |        |         |
|      | 40  | 359.4    |        |        |        |         |
|      | 50  | 359      |        |        |        |         |
| 10   | 00  | 360.2    |        |        |        |         |
|      | 10  | 360.3    |        |        |        |         |
|      | 20  | 360.4    |        |        |        |         |
| 10   | 30  | 360.4    |        |        |        |         |
|      | 40  | 360.7    |        |        |        |         |
|      | 50  | 360      |        |        |        |         |
| 11   | 00  | 361.3    |        |        |        |         |
|      | 10  | 361.3    |        |        |        |         |
|      | 20  | 361.3    |        |        |        |         |
|      | 30  | 361.3    |        |        |        |         |
|      | 40  | 361.3    |        |        |        |         |
|      | 50  | 361.3    |        |        |        |         |
| 12   | 00  | 361.5    |        |        |        |         |
|      | 10  | 361.5    |        |        |        |         |
|      | 20  | 361.5    |        |        |        |         |
| 12   | 30  | 361.6    |        |        |        |         |
|      | 40  | 361.6    |        |        |        |         |
|      | 50  | 360.4    |        |        |        |         |
| 1    | 00  | 360.2    |        |        |        |         |
|      | 10  | 360.2    |        |        |        |         |
|      | 20  | 359.8    |        |        |        |         |
|      | 30  | 358.4    |        |        |        |         |
|      | 40  | 358.4    |        |        |        |         |
|      | 50  | 358.4    |        |        |        |         |
| 2    | 00  | 358      |        |        |        |         |
|      | 10  | 358.8    |        |        |        |         |
|      | 20  | 354.8    |        |        |        |         |

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## WELL TEST DATA SHEET

Tested by A & H Pump Service Static W/L \_\_\_\_\_ Date \_\_\_\_\_  
 Owners Name \_\_\_\_\_ Well Location \_\_\_\_\_  
 Drillers Name \_\_\_\_\_ Diameter of Well \_\_\_\_\_  
 Casing Size \_\_\_\_\_ Bottom of Well \_\_\_\_\_  
 Diameter of Bowls \_\_\_\_\_ Diameter of Column \_\_\_\_\_  
 Test Pump Set @ \_\_\_\_\_ (1) Air Line \_\_\_\_\_ Ft.  
 Flow Meter Used ☐ (2) Electric Probe \_\_\_\_\_  
 Flow Tube Used ☐ Orifice Dia. \_\_\_\_\_ (3) Sonic Sounder \_\_\_\_\_

| TIME |     | TOWATER  | HEAD   | FLOW   | ENGINE | REMARKS      |
|------|-----|----------|--------|--------|--------|--------------|
| Hr   | Min | Depth Ft | Inches | G.P.M. | R.P.M. |              |
| 2    | 30  | 358      |        | 1550   |        |              |
|      | 40  | 358      |        |        |        |              |
|      | 50  | 358      |        |        |        |              |
| 3    | 00  | 359.4    |        |        |        |              |
|      | 10  | 359.4    |        |        |        |              |
|      | 20  | 359.4    |        |        |        |              |
| 3    | 30  | 359.4    |        |        |        |              |
|      | 40  | 359.4    |        |        |        |              |
|      | 50  | 359.5    |        |        |        |              |
| 4    | 00  | 359.4    |        |        |        |              |
|      | 10  | 359.7    |        |        |        |              |
|      | 20  | 359.7    |        |        |        |              |
| 4    | 30  | 359.7    |        |        |        |              |
|      | 40  | 359.7    |        |        |        |              |
|      | 50  | 359.7    |        |        |        |              |
| 5    | 00  | 359.7    |        |        |        |              |
|      | 10  | 359      |        |        |        |              |
|      | 20  | 359      |        |        |        |              |
| 5    | 30  | 359      |        |        |        |              |
|      | 40  | 359      |        |        |        |              |
|      | 50  | 359      |        |        |        |              |
| 6    | 00  | 359      | 1550   | 1550   |        | Stopped Test |
|      | 02  | 340.9    |        |        |        |              |
|      | 04  | 338.8    |        |        |        |              |
|      | 06  | 336.2    |        |        |        |              |
|      | 08  | 334.4    |        |        |        |              |
|      | 10  | 332.9    |        |        |        |              |
|      | 15  | 330.2    |        |        |        |              |
|      | 20  | 328.1    |        |        |        |              |
|      | 25  | 326.7    |        |        |        |              |
| 6    | 30  | 325.6    |        |        |        |              |
|      | 40  | 323.6    |        |        |        |              |
|      | 50  | 322.4    |        |        |        |              |
| 7    | 00  | 321.4    |        |        |        |              |
|      | 10  | 320.6    |        |        |        |              |
|      | 20  | 320      |        |        |        |              |
|      | 30  | 319.6    |        |        |        |              |
|      | 40  | 319.4    |        |        |        |              |

RECEIVED

JUN 22 2004

WATER RESOURCES DEPT  
SALEM, OREGON







Thomas Walke

RECEIVED  
AUG 23 1991

W & H PACIFIC INC

STATE OF OREGON

COUNTY OF DESCHUTES

PERMIT TO APPROPRIATE THE PUBLIC WATERS

RECEIVED

JUN 22 2004

WATER RESOURCES DEPT  
SALEM, OREGON

THIS PERMIT IS HEREBY ISSUED TO

EAGLE RIDGE DEVELOPMENT CORPORATION  
P.O. BOX 1215  
REDMOND, OREGON 97756

to use the waters of THREE WELLS in the DESCHUTES RIVER BASIN for IRRIGATION OF 317.22 ACRES AND COMMERCIAL USE (GOLF COURSE).

This permit is issued approving Application G-12429. The date of priority is FEBRUARY 26, 1991. The use is limited to not more than 4.28 CUBIC FEET PER SECOND (CFS); BEING 3.97 CFS FOR IRRIGATION AND 0.31 CFS FOR COMMERCIAL USE, or its equivalent in case of rotation, measured at the wells.

1921 gpm

The wells are located as follows:

WELL 1 - NE 1/4 NE 1/4, SECTION 22, T 15 S, R 12 W, W.M.; 350 FEET SOUTH AND 1170 FEET WEST FROM NE CORNER, SECTION 22;

WELL 2 - NW 1/4 SE 1/4, SECTION 15, T 15 S, R 12 W, W.M.; 840 FEET SOUTH AND 200 FEET EAST FROM C 1/4 CORNER, SECTION 15;

WELL 3 - SE 1/4 NE 1/4, SECTION 22, T 15 S, R 12 W, W.M.; 2300 FEET SOUTH AND 150 FEET WEST FROM NE CORNER, SECTION 22.

The amount of water used for irrigation under this right, together with the amount secured under any other right existing for the same lands, is limited to a diversion of ONE-EIGHTIETH of one cubic foot per second (or its equivalent) and 3.0 acre-feet for each acre irrigated. The use of water for irrigation may be made at any time that water can be put to beneficial use.

The use shall conform to such reasonable rotation system as may be ordered by the proper state officer.

A description of the proposed place of use under this permit is as follows:

|               |                                |
|---------------|--------------------------------|
| SW 1/4 NE 1/4 | 1.43 ACRES AND COMMERCIAL USE  |
| NW 1/4 NW 1/4 | 20.15 ACRES AND COMMERCIAL USE |
| SW 1/4 NW 1/4 | 17.24 ACRES AND COMMERCIAL USE |
| SE 1/4 NW 1/4 | 7.26 ACRES AND COMMERCIAL USE  |
| NE 1/4 SW 1/4 | 19.38 ACRES AND COMMERCIAL USE |
| NW 1/4 SW 1/4 | 23.32 ACRES AND COMMERCIAL USE |
| SW 1/4 SW 1/4 | 24.27 ACRES AND COMMERCIAL USE |
| SE 1/4 SW 1/4 | 13.08 ACRES AND COMMERCIAL USE |

SECTION 14

|               |                                |
|---------------|--------------------------------|
| SW 1/4 NE 1/4 | 11.87 ACRES AND COMMERCIAL USE |
| SE 1/4 NE 1/4 | 19.31 ACRES AND COMMERCIAL USE |
| NE 1/4 SE 1/4 | 20.07 ACRES AND COMMERCIAL USE |
| NW 1/4 SE 1/4 | 16.15 ACRES AND COMMERCIAL USE |
| SW 1/4 SE 1/4 | 14.56 ACRES AND COMMERCIAL USE |
| SE 1/4 SE 1/4 | 26.58 ACRES AND COMMERCIAL USE |

SECTION 15

|               |                                |
|---------------|--------------------------------|
| NE 1/4 NE 1/4 | 26.88 ACRES AND COMMERCIAL USE |
| NW 1/4 NE 1/4 | 23.36 ACRES AND COMMERCIAL USE |
| SE 1/4 NE 1/4 | 11.04 ACRES AND COMMERCIAL USE |

SECTION 22

|               |                                |
|---------------|--------------------------------|
| NE 1/4 NW 1/4 | COMMERCIAL USE                 |
| NW 1/4 NW 1/4 | 21.27 ACRES AND COMMERCIAL USE |

SECTION 23

TOWNSHIP 15 SOUTH, RANGE 12 EAST, W.M.

Application G-12429 Water Resources Department PERMIT G-11313



PAGE TWO

The well shall be constructed in accordance with the General Standards for the Construction and Maintenance of Water Wells in Oregon. The works shall be equipped with a usable access port, and may also include an air line and pressure gauge adequate to determine water level elevation in the well at all times. When required by the department, the permittee shall install and maintain a weir, meter, or other suitable measuring device, and shall keep a complete record of the amount of ground water withdrawn.

Prior to receiving a certificate of water right, the permit holder shall submit the results of a pump test meeting the department's standards, to the Water Resources Department. The Director may require water level or pump test results every ten years thereafter.

Actual construction work shall begin on or before August 12, 1992, and shall be completed on or before October 1, 1993. Complete application of the water shall be made on or before October 1, 1994.

Failure to comply with any of the provisions of this permit may result in action including, but not limited to, restrictions on the use, civil penalties, or cancellation of the permit.

This permit is for beneficial use of water without waste. The water user is advised that new regulations may require use of best practical technologies or conservation practices to achieve this end.

By law, the land use associated with this water use must be in compliance with statewide land-use goals and any local acknowledged land-use plan.

The use of water shall be limited when it interferes with any prior surface or ground water rights.

Issued this date, AUGUST 12, 1991.

*William H. Young*  
Water Resources Department  
William H. Young  
Director

RECEIVED

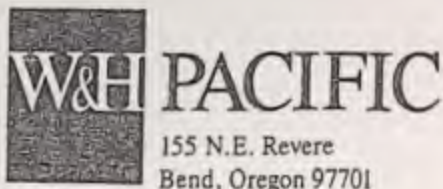
JUN 22 2004

WATER RESOURCES DEPT  
SALEM, OREGON



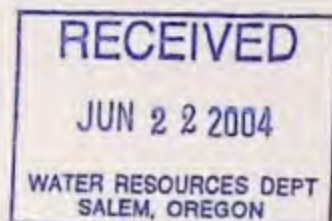






September 3, 1997

Oregon Water Resources Department  
158 12th Street NE  
Salem, OR 97310-0210



**Re: Eagle Ridge Development Corporation**  
**Permit No.: G-11762**  
**Application No.: G-12905**  
**W&H Pacific File No: 0526-0105**

Gentlemen/Ladies:

I have enclosed an executed time extension application and a check in the amount of \$100.00 for the referenced quasi-municipal permit at Eagle Crest. Your review and approval of time extensions to complete construction of appropriate water facilities and accomplish beneficial use of water are respectfully requested.

Quasi-municipal permit number G-11762 was issued to Eagle Crest in 1994, primarily to support the development of an expansion at the existing Eagle Crest Resort. Development of the resort has been underway since that time, and significant progress has been made in perfecting the permit. Complete construction of all facilities and beneficial use of all necessary water supplies has not yet been accomplished, due to the phased development of the resort property. As you would expect, additional time is required to complete the phased development for this large scale resort project.

Since the permit was issued, Eagle Crest has constructed two wells, installed 50 horsepower and 300 horsepower pumps in the wells, constructed well house improvements including valves and controls, constructed a 300,000 gallon storage reservoir, constructed miles of water distribution piping, and developed approximately 350 homesites or dwelling units. Eagle Crest has also developed numerous recreational and commercial facilities, including an 18 hole golf course, recreation center, pro shop, hotel expansion, conference center and sales office.

Within the past year, Eagle Crest has developed approximately 150 homesites, including construction of 5 four-plex units, an eight-plex unit, a recreation center, hotel expansion, conference center and single family homesites. Approximately 13,000 lineal feet of 8" to 10" water mains and associated appurtenances have been installed to serve this development. Within the past year, Eagle Crest has invested approximately \$500,000 in water distribution system improvements at the Resort.





September 3, 1997

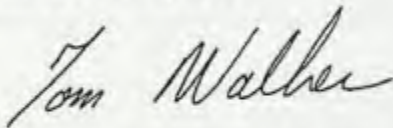
Page 2

Development at Eagle Crest II is continuing at a rapid pace, but even at this pace, additional years are required for the approximate 850 units in the Phase II project.

Please consider my request and never hesitate to contact me if you have questions or needs for additional information. Thank you for your assistance.

Very truly yours,

W&H PACIFIC, INC.

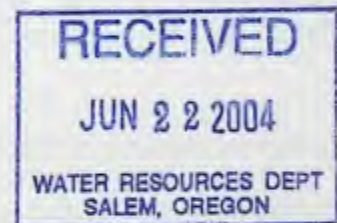


Thomas A. Walker, P.E., C.W.R.E.  
Vice President

TW/kf

enclosure

cc: William D. Lyche





File No. G-12905

## APPLICATION FOR EXTENSION OF TIME

TO THE WATER RESOURCES DIRECTOR OF OREGON

I, Eagle Ridge Development Corporation

PO Box 1215 Redmond OR 97756 (541) 923-0807  
address city state zip phone

record owner of permit No. G-11762, do hereby request that the time in which to:

☒ complete the construction of works and/or purchase and installation of the equipment necessary to the use of water, which time now expires on October 1, 1997, be extended to October 1, 1998, and/or the time in which to

☒ accomplish beneficial use of water to the full extent under the terms of the permit, which time, now expires on October 1, 1998, be extended to October 1, 1999.

I have accomplished the following described works and/or purchase and installation of equipment necessary to use of water under said permit.

(1) within past year: Installed approximately 13,000 lineal feet of water distribution piping and appurtenances and developed + 150 dwelling sites, a conference center, recreational facility, and hotel expansion.

(2) prior to this past year: Constructed two wells, a 300,000 gallon domestic water reservoir, developed approximately 200 dwelling sites constructed a sales office, opened an 18 hole golf course, etc.

(3) and have accomplished beneficial use of water to the extent of (if for irrigation, state how many acres have been irrigated)

(please reference to the attached cover letter)

(4) unable to complete construction and/or application of water within the permit time limits because \_\_\_\_\_

Wm D. [Signature]  
signature

9/2/97  
date

MAIL APPLICATION AND STATUTORY FEE OF \$100 FOR EACH PERMIT TO:  
WATER RESOURCES DEPARTMENT  
158 12TH ST NE  
SALEM, OREGON 97310

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JUN 22 2004

WATER RESOURCES DEPARTMENT  
SALEM, OREGON



4543

W & H PACIFIC, INC.  
OFFICE ACCOUNT  
155 NE REVERE 388-4255  
BEND, OR 97701

DATE 9/3/97

24-22 42  
1230

PAY TO THE ORDER OF Oregon Water Resources \$ 100.00

one hundred 00/100 DOLLARS

U.S. BANK  
BEND BRANCH  
P.O. BOX 911 BEND, OR 97709  
UNITED STATES NATIONAL BANK OF OREGON

FOR

[Redacted]

*Thomas A. McAlister*

RECEIVED  
JUN 22 2004  
WATER RESOURCES DEPT  
SALEM, OREGON





*Creative Solutions ... Superior Service*

## CONVERSATION RECORD

(541) 388-4255  
Fax (541) 388-4229

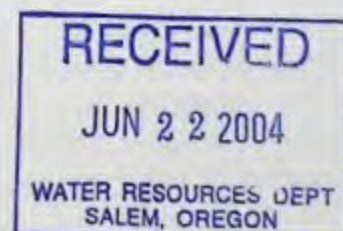
♦ Planning      ♦ Surveying  
♦ Engineering   ♦ Landscape Architecture

|                                                                              |                                                                                     |
|------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Conversation with: Dallas Miller<br>Oregon Water Resources Department (OWRD) | Date: 11-20-97                                                                      |
|                                                                              | Time: 8:30 a.m.                                                                     |
| Distribution:                                                                |                                                                                     |
| Phone Number: 624-3199                                                       | Type: <input checked="" type="checkbox"/> Telephone <input type="checkbox"/> Direct |
| Project: Eagle Crest II Wells                                                | By: Thomas A. Walker, P.E.                                                          |
| Job Number: 526-01-05                                                        |                                                                                     |
| Subject: Water Right Extensions<br>OWRD Permit G-11762                       | Action Required: <input type="checkbox"/> Yes <input type="checkbox"/> No           |

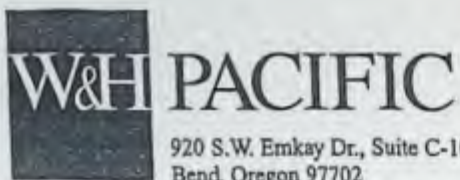
### VOICE MAIL

Note: I called earlier and requested clarification of OWRD actions and options on water right extensions.

Dallas Miller reported OWRD is making new rules for extensions. No extensions will be processed before March 1998. Unless Eagle Crest can complete all work under a permit within one year, then OWRD will defer extension application processing. Dallas acknowledged that due to the size of Eagle Crest, our permit work can not be completed. Permits are not affected. Eagle Crest should do nothing at this time and wait for OWRD processing next spring.



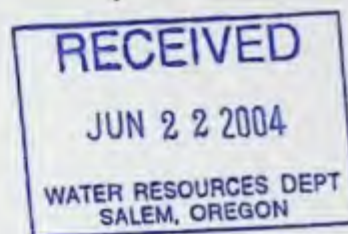




920 S.W. Emkay Dr., Suite C-100  
Bend, Oregon 97702

September 30, 1998

Mr. Dallas Miller  
Oregon Water Resources Department  
158 12th Street NE  
Salem, OR 97301-0210



**RE: Eagle Ridge Development Corporation**  
**Permit No. G-11762**  
**Application No. G-12905**  
**WHP File No. 526-0105**

Dear Dallas:

I have enclosed an executed time extension application and check in the amount of \$100.00 for the referenced quasimunicipal permit at Eagle Crest. Your review and approval of time extensions to complete construction of appropriate water facilities and accomplish beneficial use of water are respectfully requested.

Quasimunicipal Permit No. G-11762 was issued to Eagle Crest in 1994, primarily to support the development of an expansion of the existing Eagle Crest Resort. Development of the Resort has been underway since that time, and significant progress has been made in perfecting the permit. Complete construction of all facilities and beneficial use of all necessary water supplies has not yet been accomplished, due to the phased development of the Resort property. As you would expect, additional time is required to complete the phased development for this large scale resort project.

Since the permit was issued, Eagle Crest has constructed three wells, installed pumps and motors and made all three wells operational, constructed a 300,000 gallon storage reservoir, constructed miles of water distribution piping, developed an 18-hole golf course, made significant progress on an additional 9-hole golf course, constructed recreational amenities and completed commercial facilities. Approximately 500 homesites in the form of single-family lots or multi-family lots/units have been developed.

Within the past year, Eagle Crest has completed the grading on a new 18-hole golf course and completed the irrigation system installation on nine of those holes. Eagle Crest constructed a new well, including installation of a 250 horse power vertical turbine well pump, well house improvements and all piping connections. Approximately 140 homesites or multi-family units have been made available in 1998, including the installation of approximately 9000 lineal feet of 8" and 10" water mains. Within the past year, Eagle Crest has invested approximately \$900,000 in domestic water and irrigation system improvements.

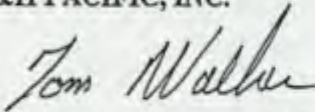


Development at Eagle Crest is continuing at a rapid pace, but even at this pace, additional years are required for the approximately 1200 units approved for the project. At the same pace of development, six additional years will be required to complete the development. This schedule however is fully dependent upon market demand for the Eagle Crest residential inventory. We have respectfully requested a six year extension to complete construction and full application of water to beneficial use.

Please consider my request and never hesitate to contact me if you have questions or needs for additional information. This water right permit is critical to Eagle Crest and we do not want to jeopardize the permit right in any way. Thank you for your assistance.

Very Truly Yours,

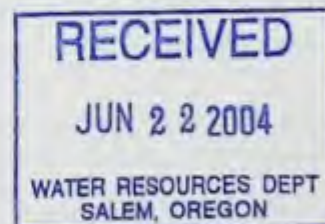
W&H PACIFIC, INC.



Thomas A. Walker, P.E., C.W.R.E.  
Vice President

Cc: William D. Lyche

Tw100198.doc





File No. G-12905

## APPLICATION FOR EXTENSION OF TIME

TO THE WATER RESOURCES DIRECTOR OF OREGON

I, Eagle Ridge Development Corporation

P.O. Box 1215 Redmond, OR 97756 (541) 923-0807  
address city state zip phone

record owner of permit No. G-11762, do hereby request that the time in which to:

☒ complete the construction of works and/or purchase and installation of the equipment necessary to the use of water, which time now expires on October 1, 1998, be extended to October 1, ~~2000~~, and/or the time in which to 2004

☒ accomplish beneficial use of water to the full extent under the terms of the permit, which time, now expires on October 1, 1998, be extended to October 1, ~~2000~~ 2005

I have accomplished the following described works and/or purchase and installation of equipment necessary to use of water under said permit.

(1) within past year Constructed +9000 lineal feet of 8" and 10" domestic water mainline, +150 water services, +20 fire hydrants, and constructed a new well.

(2) prior to this past year Constructed two wells, a 300,000 gallon reservoir, developed approximately 500 residential units, opened an 18-hole golf course, etc.

(3) and have accomplished beneficial use of water to the extent of (if for irrigation, state how many acres have been irrigated)

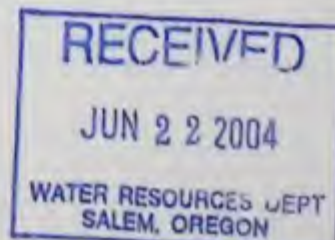
(please reference the attached cover letter)

(4) unable to complete construction and/or application of water within the permit time limits because of the phased development for the large scale Eagle Crest Resort project.

Bill Sykes Dir. of Development  
signature

9/30/98  
date

MAIL APPLICATION AND STATUTORY FEE OF \$100 FOR EACH PERMIT TO:  
WATER RESOURCES DEPARTMENT  
158 12TH ST NE  
SALEM, OREGON 97310





W & H PACIFIC, INC.  
OFFICE ACCOUNT  
155 NE REVERE 388-4255  
BEND, OR 97701

4952

24-22  
1230

DATE 10/1/98

PAY  
TO THE  
ORDER OF Oregon Water Resources

\$ 100.00

one hundred

00/100

DOLLARS 

**U.S. BANK**  
BEND BRANCH  
P.O. BOX 911 BEND, OR 97709  
UNITED STATES NATIONAL BANK OF OREGON

FOR

Zeri Cavallo

RECEIVED

JUN 22 2004

WATER RESOURCES DEPT  
SALEM, OREGON





# Oregon

John A. Kitzhaber, M.D., Governor

## Water Resources Department

Commerce Building  
158 12th Street NE  
Salem, OR 97310-0210  
(503) 378-3739  
FAX (503) 378-8130

October 23, 1998

EAGLE RIDGE DEVELOPMENT, CORP.  
PO BOX 1215  
REDMOND, OR 97756

RECEIVED

JUN 22 2004

WATER RESOURCES DEPT  
SALEM, OREGON

Reference: Files G 12905 Permit G 11762

Dear Extension Applicant:

We have received your request for extension of time limits under your permit.

You have already applied for an extension of time on 9/8/97, because of the making of new administrative rules we have not yet processed that request. It is not necessary to apply again or pay the \$100 fee again. We will keep your request and refund the \$100 fee to you. The commission has adopted the new rules and we will be processing your request for extension.

If you have questions please contact me at the address below or phone 1-800-624-3199 ext. 272.

Sincerely,

Dallas Miller  
Natural Resource Specialist 2

cc: Watermaster Dist 11

*A refund  
will be  
mailed  
to you  
shortly.*





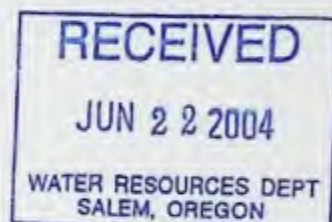
# W&H PACIFIC

920 S.W. Emkay Dr., Suite C-100  
Bend, Oregon 97702

November 24, 1998

Mr. Dallas Miller  
Oregon Water Resources Department  
158 12th Street NE  
Salem, OR 97310-0210

RE: Eagle Ridge Development Corporation  
Permit G-11762  
OWRD Application No. G-12905  
Permit Extension Application  
WHP File No. 526-0105



Dear Dallas:

The referenced quasimunicipal permit for Eagle Crest was issued on May 31, 1994. Construction was initiated to perfect the permit and the standard Form A was submitted on June 6, 1995. Extension requests were filed with your department for the completion of construction on September 3, 1997 and September 30, 1998. Although these extension applications are pending, the term of the extension was not clear. The following summary and attached application for extension of time are intended to replace the pending extension request.

Eagle Crest has made significant progress in perfecting the quasimunicipal permit. Three groundwater wells have been constructed and placed in service. A 300,000 gallon storage reservoir has been completed, together with miles of water distribution piping to serve the development. Approximately 500 homesites, in the form of single family lots or multi-family lots/units, have been developed. An 18-hole golf course has been constructed and opened for play and significant progress has also been made on a second 18-hole golf course, with play expected in the summer of 2000. A large pool and recreation building have been completed, a sales office constructed, a golf course pro shop completed, golf course maintenance building occupied, and numerous homes and multi-family units completed.

Although significant progress has been made in perfecting the permit, additional time is required to complete the phased development for this large scale resort project. Development at Eagle Crest has proceeded at a rapid pace, but even at this pace, additional years are required for the approximately 1200 units approved for the project. Eagle Crest respectfully requests a 10 year extension to complete the construction of works and/or the purchase and installation of the equipment necessary to use the water. This 10 year time period will allow Eagle Crest to complete the installation of golf course irrigation systems, landscape irrigation systems, the distribution system to serve development and generally complete the phased development of Eagle Crest. The phased development is fully dependent upon market demand for the Eagle Crest residential inventory, which is impossible to predict. We believe the 10 year timeframe is reasonable, particularly with the significant progress already made in perfecting the referenced permit.





Please consider my request and never hesitate to contact me if you have questions or needs for additional information. This water right permit is critical to Eagle Crest and we do not want to jeopardize the permit right in any way. Thank you for your assistance.

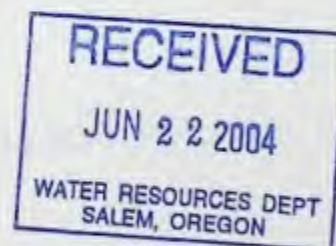
Very Truly Yours,

**W&H PACIFIC, INC.**

Thomas A. Walker, P.E., C.W.R.E.  
Vice President

Cc: Alan VanVliet

112098tw.doc







# Oregon

John A. Kitzhaber, M.D., Governor

## Water Resources Department

Commerce Building  
158 12th Street NE  
Salem, OR 97310-0210  
(503) 378-3739  
FAX (503) 378-8130

April 27, 1999

EAGLE RIDGE DEVELOPMENT CORP.  
WILLIAM LYCHE  
PO BOX 1215  
REDMOND, OR 97756

REFERENCE: File G 12905

Dear Mr. Lyche:

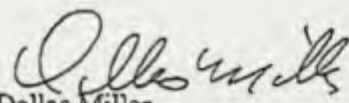
Regarding your extension request of permit G 11762, we need some more information.

Your request shows 1350 gpm being used under this permit. That is all the water allowed under this permit. If you are using the limit, we would not have any basis for extending the time, you should report full use and submit the Final Proof survey.

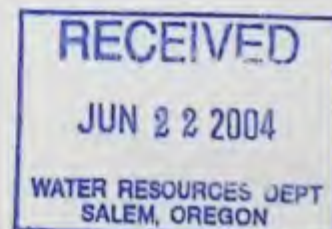
Please advise me if that amount you reported is the correct peak use.

If you have questions please contact me at the address below or phone (503)378-3739 ext. 272.

Sincerely,

  
Dallas Miller  
Water Rights Specialist

cc: Watermaster, District 11







# Oregon

John A. Kitzhaber, M.D., Governor

## Water Resources Department

Commerce Building  
158 12th Street NE  
Salem, OR 97310-0210  
(503) 378-3739  
FAX (503) 378-8130

RECEIVED

MAY 10 1999

May 4, 1999

W & H PACIFIC, INC.

THOMAS WALKER  
W&H PACIFIC  
920 SW EMKAY DR, SUITE C-100  
BEND, OR 97702

REFERENCE: File G 12905

Dear Mr. Walker:

Regarding your letter of May 4, 1999, I will try to clarify the permit requirements. If the peak use during the year is 1350 gpm under permit G 11762, then the quantity of water has been completely applied and an extension of time would not be necessary or possible. Because the permittee cannot exceed the permit limits.

If you are using 1350 gpm at peak use during the year then you should report full use and submit a final proof survey. We want the amount of water actually put to use, not the system capacity or the amount used in a test.

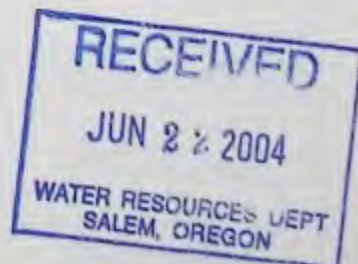
If that much water (1350 gpm) is not being used then you can send us a revised amount that is the amount actually used, and we can process the extension. A permit is limited by the amount of water allowed, it cannot be expanded even if all the area is not yet built. If the full amount is in use another permit should be applied for.

If you have questions please contact me at the address below or phone (503)378-3739 ext. 272.

Sincerely,

Dallas Miller  
Water Rights Specialist

cc: Watermaster, District 11, Eagle Ridge







920 S.W. Emkay Dr., Suite C-100  
Bend, Oregon 97702

**FAXED**  
5-4-99

May 4, 1999

Mr. Dallas Miller  
Water Rights Specialist  
Oregon Water Resources Department  
Commerce Building  
158 12th Street NE  
Salem, OR 97310-0210

**RE: Eagle Ridge Development Corporation**  
**OWRD File No. G-12905**  
**Permit No. G-11762**  
**WHP File No. 526-0105**

Dear Dallas:

Thank you for your review of the Eagle Crest extension request for the referenced quasimunicipal permit. You suggested the permit may have been perfected and no extension is required. I believe Eagle Crest would prefer your position, but I do have several questions.

Eagle Crest has constructed source facilities, with a capacity equal to that allowed under the permit. On a resort project, the full source capacity is often required relatively early in the development to assure adequate fire protection and full service under instantaneous demands. However, our water distribution system is not fully constructed. Large segments of raw land remain within the resort boundaries, where water mains and services have not been extended.

Even though our wells are constructed, they may operate at capacity only during emergency conditions. As the resort grows, the hours of operation for the wells will grow steadily.

If Eagle Crest proceeded with a final proof survey, we could document well capacity in conformance with the permit allowance. We could not demonstrate that water service has been provided for all lands within the resort boundary. Has our quasimunicipal permit been fully perfected? Could we continue to extend the water distribution system, continue to increase the volume of water consumption, and generally continue to expand the water system into undeveloped lands, even if the final proof survey were completed at this time?

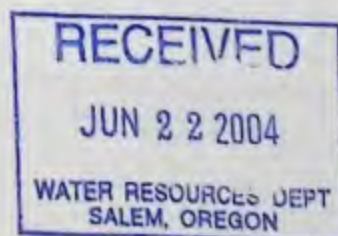
Your assistance on the Eagle Crest water right is greatly appreciated. Your help with these questions will allow us to make a good decision and proceed with the right choice on the perfection of our rights.

Very Truly Yours,

**W&H PACIFIC, INC.**

Thomas A. Walker, P.E., C.W.R.E.  
Vice President

Cc: Alan VanVliet  
William D. Lyche







920 S.W. Emkay Dr., Suite C-100  
Bend, Oregon 97702

May 13, 1999

Mr. Dallas Miller  
Water Rights Specialist  
Oregon Water Resources Department  
Commerce Building  
158 12th Street NE  
Salem, OR 97310-0210

RE: Eagle Ridge Development Corporation  
OWRD File No. G-12905  
WHP File No. 526-0105

Dear Dallas:

Thank you for your review of the Eagle Crest extension request for the referenced quasimunicipal permit. I have compiled responses to your questions and clarified the status of our source development. Your assistance and clarifications have been very helpful.

Eagle Crest has constructed source facilities, with a capacity equal to that allowed under the permit. We do not however utilize that full capacity on a regular basis. That full capacity is intended to assure an adequate flow rate in the case of wild fire or similar emergency. I have utilized our August 1998 total well water consumption to estimate our current use. In August, only two of our three wells were pumped. The quasimunicipal consumption is equivalent to  $\pm 540$  gpm, averaged over an entire month. That flow rate is approximately 40% of the flow rate authorized by the referenced permit.

Based upon these calculations and your clarifying correspondence and phone comments, it appears that Eagle Crest should proceed with the extension application. Although source facilities have been constructed, we have not yet beneficially utilized that capacity on a regular basis. Also, the water distribution system has not yet been extended to all lands within the service area.

Thank you again for your significant assistance. Please never hesitate to contact me if you have questions or need additional information.

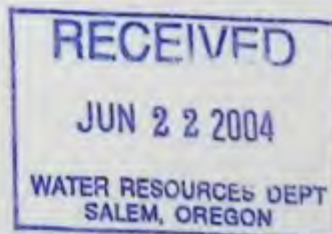
Very Truly Yours,

W&H PACIFIC, INC.

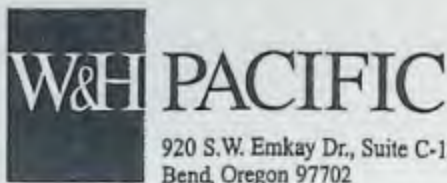
Thomas A. Walker, P.E., C.W.R.E.  
Vice President

Cc: Alan VanVliet

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920 S.W. Emkay Dr., Suite C-100  
Bend, Oregon 97702

September 7, 1999

Mr. Dallas Miller  
Oregon Water Resources Department  
158 12th Street NE  
Salem, OR 97310-0210

**RE: Eagle Ridge Development Corporation  
Permit G-11762  
OWRD Application No. G-12905  
Permit Extension Application  
WHP File No. 526-0105**

Dear Dallas:

On November 24, 1998, I submitted a permit extension application for the referenced Eagle Crest water right. Concurrently, I submitted an extension application for another Eagle Crest irrigation right. The Eagle Crest irrigation right has been processed and the extension granted. I have not however received any notices nor indications on the requested extension for Permit G-11762.

I am eager to provide additional information or assist you in any way possible in the consideration of our permit extension. Please let me know if there is anything I can do to help in this matter. Also, a quick status report would be very helpful for Eagle Crest.

Thank you very much for your continuing assistance.

Very Truly Yours,

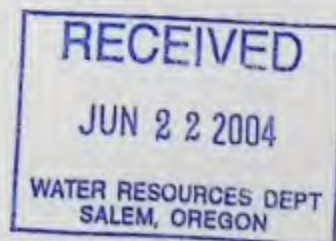
W&H PACIFIC, INC.

A handwritten signature in cursive script, reading 'Tom Walker'.

Thomas A. Walker, P.E., C.W.R.E.  
Vice President

Cc: Alan VanVliet

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# W&H PACIFIC

920 S.W. Emkay Dr., Suite C-100  
Bend, Oregon 97702

September 28, 1999

Mr. Dallas Miller  
Oregon Water Resources Department  
158 12th Street NE  
Salem, OR 97310

RE: **Eagle Ridge Development Corporation**  
**Groundwater Permit No. G-11762**  
**OWRD File No. G-12905**  
**WHP File No. 526-0105**

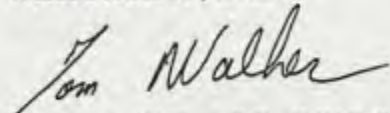
Dear Dallas:

The referenced groundwater permit for the Eagle Crest Resort specifies deadlines for completion of construction and complete application of water to a beneficial use. Eagle Crest has submitted multiple extension applications, with the most recent being in November 1998. We provided additional information on May 4<sup>th</sup>, 1999 and May 13, 1999, and understood the extension application would be processed. We have received no response on the pending extension application. Does Eagle Crest need to take any additional action before October 1 of this year?

Eagle Crest can not and will not jeopardize its water rights. The referenced water right is critical to resort operations. Eagle Crest is eager to prepare any necessary forms or applications and follow-up in any appropriate manner. At this point, we are not certain of the proper action. Again, your review and comments will be greatly appreciated.

Very Truly Yours,

W&H PACIFIC, INC.



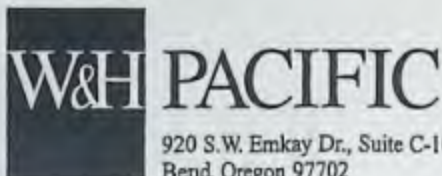
Thomas A. Walker, P.E., C.W.R.E.  
Vice President

Cc: Alan VanVliet

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920 S.W. Emkay Dr., Suite C-100  
Bend, Oregon 97702

October 16, 2000

Mr. Dallas Miller  
Oregon Water Resources Department  
158 12th Street NE  
Salem, OR 97310

RE: Eagle Ridge Development Corporation  
Groundwater Permit No. G-11762  
OWRD File No. T-12905  
WHP File No. 526-0105

Dear Dallas:

The referenced groundwater permit for the Eagle Crest Resort specifies deadlines for completion of construction and complete application of water to a beneficial use. Eagle Crest has submitted multiple extension applications, with the most recent being in November 1998. We provided additional information on the extension application in May of 1999, but we have received no response on the pending extension application. Please advise me if Eagle Crest needs to take any additional action to protect the groundwater permit.

You and I spoke briefly in October of 1999 about the pending Eagle Crest extension application. You indicated the Water Resources Department was working through a back log of extension applications and no further action was required. The referenced water right is critical to the resort operations and Eagle Crest can not jeopardize these water rights. Eagle Crest is eager to prepare any necessary forms or applications and follow-up in any appropriate manner. Unless I hear otherwise, I will conclude our 1998 extension application adequately protects the Eagle Crest groundwater permit, until some notice of extension processing is received.

Thank you very much for your review and assistance.

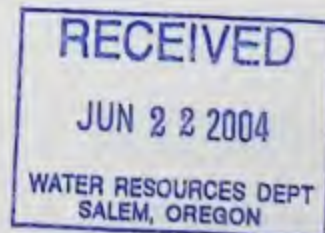
Very Truly Yours,

W&H PACIFIC, INC.

A handwritten signature in cursive script that reads 'Tom Walker'.

Thomas A. Walker, P.E., C.W.R.E.  
Vice President

Cc: Alan VanVliet



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920 SW Emkay, Suite C100  
Bend, Oregon 97702

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♦ Engineering ♦ Landscape Architecture

## CONVERSATION RECORD

|                                                                           |                                                                                     |
|---------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Conversation with: Mr. Dallas Miller<br>Oregon Water Resources Department | Date: October 20, 2000                                                              |
| Distribution: Alan VanVliet                                               | Time: <b>FAXED</b><br>10-24-00                                                      |
| Phone Number:                                                             | Type: <input checked="" type="checkbox"/> Telephone <input type="checkbox"/> Direct |
| Project: Eagle Crest II                                                   | By: Thomas A. Walker, P.E.                                                          |
| Job Number: 526-0105                                                      |                                                                                     |
| Subject: Water Rights<br>Pending Extension Application                    | Action Required: <input type="checkbox"/> Yes <input type="checkbox"/> No           |

### Notes:

A few days ago, I sent a letter to the Oregon Water Resources Department reminding them of a pending application for extension of a water right permit for Eagle Crest II. The letter documented the 1998 application, and annual contact with the Oregon Water Resources Department to confirm Eagle Crest water rights are not jeopardized.

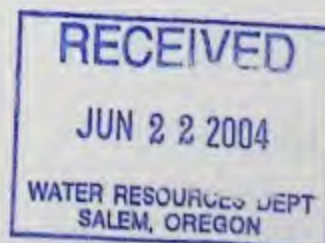
Dallas Miller explained no water right extension applications are being processed in the Deschutes Basin. Dallas has been instructed not to process any extension applications.

In response to my questions, Dallas Miller indicated he is aware of no action Eagle Crest could take to better protect existing water rights or to gain any action on a water right extension application. I explained Eagle Crest is continuing to perfect the water right permit. Dallas Miller agreed Eagle Crest has full authority to perfect the permit. Dallas clarified the OWRD is not restricting perfection under permits, even though no action has been taken on extension applications.

I asked Dallas about the worst case scenario for Eagle Crest. Under the worst case scenario, Eagle Crest would be denied an extension. Under this worst case scenario, the final proof survey would be limited to the degree of perfection that had been accomplished at the permit expiration date. I suggested that Eagle Crest has a quasimunicipal permit, and well pumps were installed to provide fire protection flow rates very early in the development. Eagle Crest could make a case that the permit was perfected to the full allocation of the permit, regardless of the expiration date.

Dallas suggested I contact Steve Brown at extension 263 if Eagle Crest needed a response to the question of perfection or needed additional information on the pending extension application. Dallas was very cordial and helpful and reiterated his comment that Eagle Crest has done everything possible to protect their water rights.

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## TRANSMITTAL

To: Ms. Lisa J. Juul  
Water Rights Specialist  
Company: Oregon Water Resources Department  
Address: 158 12<sup>th</sup> Street NE  
City/State: Salem, OR 97301-4172  
Phone:  
Fax:

Date: January 23, 2003  
Project Number: 30036  
Project Name: Eagle Crest Resort  
Re: Cline Butte Utility Company  
Water Right Extension Application  
Permit #: G-11762

From: Thomas A. Walker, P.E., C.W.R.E.  
Phone: (541) 388-4255  
Fax: (541) 388-4229

**Confidentiality Notice:** This facsimile is intended only for the use of the individual and exempt from disclosure under applicable law. If the reader of this message is not the intended recipient, you are hereby notified that the unauthorized dissemination, distribution or copying of this communication, or the taking of any action in reliance on the contents of this information is strictly prohibited. If you have received this facsimile in error, please notify us immediately by telephone (collect). Thank you.

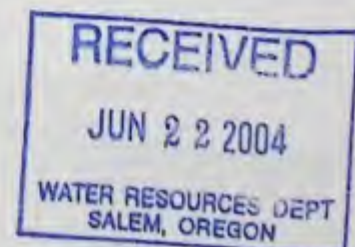
|                                              |                                                          |                      |
|----------------------------------------------|----------------------------------------------------------|----------------------|
| <b>We are sending:</b>                       | <b>These Are Transmitted:</b>                            | <b>Copied To:</b>    |
| <input checked="" type="checkbox"/> Attached | <input type="checkbox"/> For Your Info/File              | <u>Alan VanVliet</u> |
| <input type="checkbox"/> Facsimile           | <input checked="" type="checkbox"/> As Requested         | _____                |
| # Of Pages Including Cover                   | <input checked="" type="checkbox"/> For Review & Comment | _____                |

| Copies | Description                                                                       |
|--------|-----------------------------------------------------------------------------------|
| 1      | Executed Application For Extension of Time                                        |
| 1      | Burden of Proof Statement in Support of the Extension of Time Application         |
| 1      | Well Logs, Permit, Development Maps, and Domestic Water Supply System Master Plan |

Lisa,  
Thank you for your assistance on the pending water right extension application for the Eagle Crest resort. As noted in our initial extension application from 1997 and subsequent correspondence, the referenced water right is critically important to Eagle Crest. This application is intended to meet all needs for an extension and protect the Eagle Crest water right. Please contact me immediately if you have any questions or concerns.

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Planning ♦ Surveying and Mapping

Washington ♦ Oregon ♦ Idaho





# APPLICATION FOR EXTENSION OF TIME

## for Quasi-Municipal and Municipal Water Use Permits

### TO THE WATER RESOURCES DIRECTOR OF OREGON

I, Eagle Ridge Development Corporation Jerol Andres, President  
NAME OF ENTITY NAME OF CONTACT

P.O. Box 1215 Redmond, OR 97756  
ADDRESS CITY STATE ZIP PHONE

owner of record, or duly authorized agent, of Application No. G-12905, Permit No. G-11762,  
do hereby request that the time in which to:

☒ complete the construction of diversion/appropriation works and/or purchase and installation of  
the equipment necessary to the use of water, which time now expires on October 1, 1997,  
be extended to October 1, 2012,

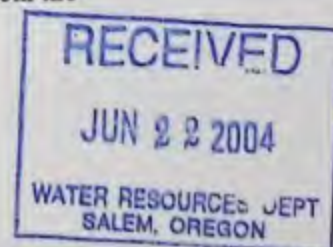
and/or the time in which to:

☒ accomplish beneficial use of water to the full extent under the terms of the permit, which time  
now expires on October 1, 1998, be extended to October 1, 2012.

**NOTE:** Permit extensions for Quasi-Municipal and Municipal permits are evaluated under OAR  
Chapter 690, Division 315. Except under limited circumstances, upon issuance of an  
order approving an extension, you will be required to submit within 3 years a Water  
Management and Conservation Plan (WMCP) under OAR Chapter 690, Division 86.  
Diversion of water beyond the maximum rate currently diverted under the permit shall  
only be authorized upon approval of your WMCP. The rules may be viewed at:  
"[www.wrd.state.or.us/law/oar1999.shtml](http://www.wrd.state.or.us/law/oar1999.shtml)"

Attached are instructions to assist you in completing the information on the permit  
extension application form. Oregon Water Law and Administrative Rules require this  
information to be considered by the Water Resources Department when reviewing a  
Quasi-Municipal or Municipal water use permit extension application. For each permit, a  
separate extension application must be submitted. All items must be addressed or the  
application may be returned. Please feel free to provide the Department with any  
additional information or evidence that will aid us in making our decision. Please use  
additional sheets of paper as needed to fully respond to the questions.

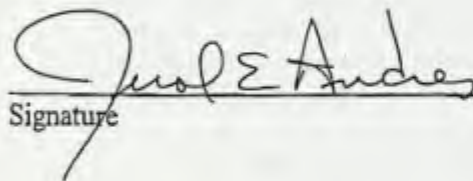
After reviewing the application form and the instruction sheet, if you have any questions,  
you may contact the Department at (503) 378-3739, and request assistance from the  
Water Rights Division, permit extensions personnel.





11. A summary of the plan and schedule to complete construction and/or perfect the water right.
12. Justification for the time requested to complete the project and/or apply the water to full beneficial use.
13. Any other information you wish the Department to consider while evaluating the extension of time application.

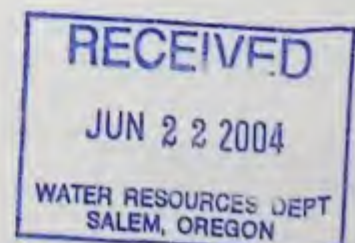
I am the permittee, or have authorization from the permittee, to apply for an extension of time under this permit. I certify that the information I have provided in this application is true and correct to the best of my knowledge.

  
Signature

\_\_\_\_\_  
Date

MAIL COMPLETED APPLICATION and STATUTORY FEE (under ORS 536.050) TO:

WATER RIGHT PERMIT EXTENSIONS  
WATER RESOURCES DEPARTMENT  
158 - 12<sup>th</sup> STREET NE  
SALEM, OREGON 97301-4172





**APPLICATION FOR EXTENSION OF TIME  
FOR QUASI-MUNICIPAL WATER USE  
CLINE BUTTE UTILITY COMPANY  
OREGON WATER RESOURCES DEPARTMENT PERMIT #G11762  
OREGON WATER RESOURCES DEPARTMENT APPLICATION FILE #G12905  
JANUARY 14, 2003**

**Narrative:**

Cline Butte Utility Company has provided the following information for the Oregon Water Resources Department to evaluate an extension of time request for quasi-municipal water use permit #G-11762. In the following paragraphs, the criteria for evaluation of an extension, as established by the Oregon Water Resources Department, are shown in bold text. The response and justification follow in standard text.

Permit G-11762 serves the Ridge at Eagle Crest (Eagle Crest II) through a water distribution system owned and operated by the Cline Butte Utility Company. The Cline Butte Utility Company is a subsidiary of the developer, Eagle Crest, Inc. the Eagle Crest destination resort consists of three major expansion areas. Regardless, this extension request is limited to permit G-11762 and Eagle Crest II.

**I. The Appropriate fee, as specified under ORS 536.050.**

A check in the amount of \$100.00 was submitted on September 3, 1997. The Oregon Water Resources Department (OWRD) web site confirms the appropriate fee remains at \$100.00. No further payment is necessary.

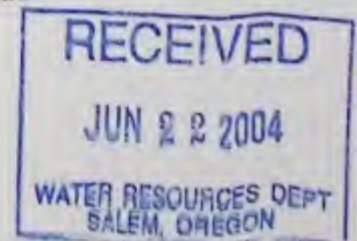
**II. For Quasi-Municipal water use permits, evidence of the actions taken to begin actual construction on the project, if required under the applicable statute.**

Permit G-11762 allows the development and perfection of water use from up to three wells. Construction of the initial well was initiated on September 18, 1991 and completed on October 11, 1991. Construction of a second well was initiated on January 20, 1992 and completed on February 20, 1992. Construction of the third well was initiated on March 19, 1998 and completed on April 22, 1998. Well logs were filed with the Oregon Water Resources Department for all three wells and document initiation of construction in conformance with the permit. Copies of the well logs are attached.

**III. Evidence of actions taken to develop the right within the permitted time frame and/or time period of the previous extension.**

An extension application was filed on September 3, 1997. Multiple letters and telephone conversations document prudent responses and follow up on the extension application by the applicant.

As noted in the September 3, 1997 extension application, Eagle Crest had constructed two wells by 1997. 50 HP and 300 HP pumps were installed in the wells, well house improvements had been completed, a 300,000 gallon storage reservoir had been constructed, and miles of water distribution piping had been installed. Approximately 350 homesites, numerous recreational and





commercial facilities, an 18-hole golf course, recreation center, pro-shop, hotel expansion, conference center, and sales office had been completed by 1997.

Between 1997 and 2002, Eagle Crest, Inc. continued development of resort properties. Development is not yet complete and infrastructure not yet extended to all future homesites within the service area. However, development is substantially complete. Nearly 1,000 residential units or homesites have been developed to date, including the extension of a water distribution system and standard infrastructure to these homesites. A third well, including pump, well house improvements, valves, and electronic controls have been completed. A copy of the address map for the Ridge at Eagle Crest (Eagle Crest II) is enclosed to document development progress.

**IV. Evidence of compliance with conditions contained in the permit and any previous extension(s). If any of the conditions have not been satisfied, please explain the reasons why.**

A copy of permit G-11762 is attached. Permit conditions include well construction standards, which are documented on the attached well logs.

Appropriate water meters have been installed on each of the three wells and a complete record of water use maintained on a monthly basis. Annual reports of water use have been submitted regularly to the Oregon Water Resources Department.

Air lines have been installed to allow static and pumping water level measurements on a regular basis. Static water level measurements have been reported to the Oregon Water Resources Department on an annual basis for all Eagle Crest wells.

To the very best knowledge of the applicant, all water use has been efficient as measured by the standard of the industry, without waste. In addition, all appropriate land use approvals are in place and water use is considered in full compliance with land use goals and the local acknowledged land use plan.

**V. Evidence of the maximum rate of water delivered to date, if any, for Quasi-Municipal or Municipal purposes.**

The three wells constructed at Eagle Crest are typically utilized in a lead/lag control configuration to meet multiple and varying water demands. Each of the three wells have been designed and constructed to supplement irrigation water supplies, domestic water supplies, and/or fire protection systems. Automatic controls set fire protection and domestic use as the highest priority.

The design capacity for each of the three wells, under the lowest anticipated discharge head, and therefore the highest discharge rate, are noted below:

Well #6: 160 gpm

Well #7: 370 gpm

Well #8: 820 gpm

Estimated Maximum Discharge: 1,350 gpm



Eagle Crest has constructed source facilities with capacity equal to that allowed under the permit. Eagle Crest has not yet utilized that full capacity on a regular basis.



**VI. An estimate of the population served under this permit and a description of the methodologies used to make this estimate.**

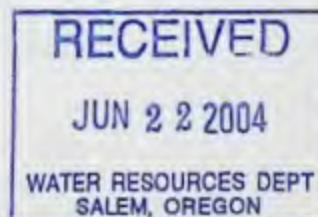
Eagle Crest, Inc. can only estimate the population, based upon the number of constructed dwellings and a rough projection of the average family size visiting the resort. Eagle Crest has confirmed that resort populations vary dramatically from day to day and month to month throughout the year. Occupancy rates are much higher in the summertime and typically much lower in the spring and fall. Regardless, our best estimate of the population served is based upon 490 constructed residential dwellings and an average population per unit of 3.5 people, resulting in a rough estimate of 1,715 people for the current Eagle Crest II population. The population estimate would apply only during full occupancy during the peak season of the year.

**VII. A description of the financial expenditures made toward completion of the water development.**

The following table provides a rough estimate of the capital expenditures associated with the construction and improvement of wells, installation of water distribution system piping, and construction of the storage reservoir.

**ESTIMATED CONSTRUCTION VALUE OF THE EXISTING EAGLE CREST II  
WATER SUPPLY AND DISTRIBUTION SYSTEM**

|                                                    |             |
|----------------------------------------------------|-------------|
| 1. Well #6                                         | \$150,000   |
| 2. Well #7                                         | \$300,000   |
| 3. Well #8                                         | \$350,000   |
| 4. 11 Miles of 6" to 12" Water Distribution Piping | \$2,300,000 |
| 5. 300,000 Gallon Storage Reservoir                | \$150,000   |
| 6. Estimated Totals                                | \$3,150,000 |



**VIII. An estimate of the cost necessary to complete the water development.**

As noted, the water supply and distribution system for Eagle Crest II is substantially complete. Approximately 5,000 lineal feet (LF) of water distribution system remain to be constructed within currently undeveloped sections of the resort. The estimated cost of the water distribution system, including mainlines, valves, fire hydrants, water services, and related appurtenances is \$200,000. This cost estimate is based upon a typical unit price of \$40.00 per LF.

**IX. A summary of any events that delayed completion of the water development or application of water to full beneficial use, including other governmental requirements, if any, relating to the project, that have significantly delayed completion of construction or perfection of the right.**

Eagle Crest, Inc. is obligated to obtain numerous local, state, and federal reviews and approvals in the course of resort development. Although approvals have been appealed and delayed under land use regulations, no significant delays have been incurred since the issuance of permit G-11762. Rather, buildout of Eagle Crest is based upon market conditions and the related significant complexities of community development. Completion of the water distribution system and perfection of the water right are dependent upon market demand and the associated buildout of the resort. The rate and extent of development are beyond the control of the applicant.



- X. An estimated demand projection and a description of the methodologies used for the subject water right permit, considering the other water rights and contracts held by the municipal or quasi-municipal water use permit holder, and a date by which the water development is anticipated to be completed and water put to full beneficial use.
- XI. Extension requests for greater than 50 years must include documentation that the demand projection is consistent with the amount and types of lands and uses proposed to be served by the permit holder.

Development at Eagle Crest is regulated by Deschutes County land use codes and associated State of Oregon land use goals. The land use approvals for Eagle Crest stipulate a maximum number of units. Eagle Crest, Inc. has utilized the land use stipulations to prepare a water supply system master plan, projecting the ultimate water demand for the resort, including all water supplies. The water supply system master plan has been updated on a regular basis, with the most recent being July 2002. A copy of the master plan update is attached.

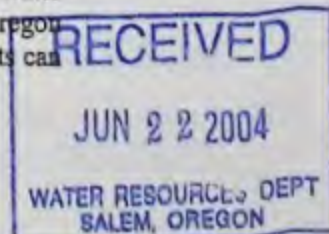
The Eagle Crest water master plan estimates 985 equivalent dwelling units at full buildout of the Ridge at Eagle Crest (Eagle Crest II). The peak day domestic consumption for Eagle Crest II is estimated at 1.2 million gallons, with a source requirement of 855 gpm. Because domestic use is subject to significant peaks during the day, a peak instantaneous demand is estimated at 2,138 gpm. In addition, a peak landscape irrigation requirement of 1,780 gpm is estimated for Eagle Crest II. Eagle Crest, Inc. analyzed all water rights and concluded the permit allowance of 3.0 cubic feet per second (1,350 gpm) under permit G-11762, together with all other water rights, is adequate to meet the long-term demand of the resort at buildout.

Water consumption per dwelling unit at Eagle Crest, Inc. is based upon historical water consumption on metered accounts for previously developed sections of the resort. Similarly, irrigation water demand is based upon historical consumption, primarily on irrigated golf course turf. Eagle Crest, Inc., as documented in the water system master plan, recognizes that weather conditions, project populations, occupancy rates, water conservation, and numerous other factors can affect water demand and required source capacity. The very best information, utilizing standards of the engineering profession, conclude that the constructed source facilities, with capacity equal to that allowed under the permit, are expected to meet the ultimate demand for the project.

Ultimate buildout of the resort is subject to market demand and market conditions that are outside of the control of the applicant. A projection of historical lot sales suggests that the resort will approach buildout in the years 2008 to 2012. Eagle Crest, Inc. initially requested an extension of time until 2008. The current extension application requests that completion requirements be extended to the year 2012.

- XII. A summary of the plan and schedule to complete construction and/or perfect the water right.

Eagle Crest, Inc. has completed land use master plans, which include preliminary designs for residential units and the associated infrastructure. In addition, water supply system master plans have been completed and updated, providing the plan and schedule for construction of water facilities and the perfection of water rights. These documents have been submitted to the Oregon Health Division and the Deschutes County Planning Department. Copies of these documents can be provided upon request.



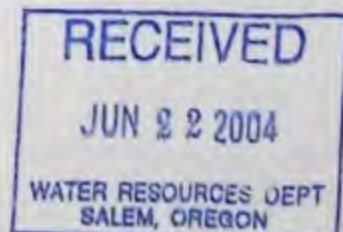


Generally, buildout of the Eagle Crest resort will occur in phases to match market demand. Projection of historical sales data suggest the water right will be fully perfected by the year 2012.

**XIII. Justification for the time requested to complete the project and/or apply the water to full beneficial use.**

As noted, the development of Eagle Crest is fully dependent upon market demand and conditions that are outside of the applicant's control. Eagle Crest, Inc. must develop in a reasonable manner, under conditions and time frames that are economically viable. None of these conditions can be projected or estimated accurately, because of ever changing market conditions. Historical absorption of Eagle Crest inventory suggests buildout will occur between the years 2008 and 2112. A 10-year extension is requested, to best comply with these broad estimates and projections. If buildout occurs prior to the 10-year extension request, then final proof surveys can be completed at that time.

**XIV. Any other information you wish the department to consider while evaluating the extension of time application.**







# Oregon

John A. Kitzhaber, M.D., Governor

**Water Resources Department**

Commerce Building  
158 12th Street NE  
Salem, OR 97301-4172  
(503) 378-3739  
FAX (503) 378-8130

**DEAR EXTENSION APPLICANT**

The Water Rights Section has received your application for an extension of time for **PERMIT # 6-11762** **FILE # 6-12905**. Your application will be reviewed in the near future. Following the review, you will receive a Proposed Final Order either approving or rejecting the extension. A 45 day protest period begins upon issuance of the Proposed Final Order. After the protest period, a Final Order is issued.

If you have questions, please phone our Water Rights Information Group at (503) 378-8455, extension 201. For general information, our Department Internet home page is accessible at [www.wrd.state.or.us](http://www.wrd.state.or.us).

**RECEIVED****JUN 22 2004****WATER RESOURCES DEPT  
SALEM, OREGON**





April 2, 2004

920 SW Emkay, Suite C100  
Bend, Oregon 97702-1041  
541.388.4255  
Fax 541.388.4229

Ms. Lisa Juul  
Oregon Water Resources Department  
725 Summer St. N.E., Suite A  
Salem, OR 97301-2430

**RE: Eagle Crest Resort  
Cline Butte Utility Company  
OWRD Permit No. G - 11762  
OWRD Permit No. G - 12905  
WHP File No. 31250.1001**

Dear: Lisa

Thank you very much for your review and assistance on water rights for the Eagle Crest Resort. An extension request is pending for Permit No. G - 11762, however you recommend a final proof survey. Cline Butte Utility Company has authorized me to proceed with the final proof survey, as you recommend.

The extension application was filed for Permit No. G - 11762 because the quasi-municipal water distribution system is not fully developed. Wells have generally been constructed to their full capacity, although the ultimate water consumption has not been accomplished because the resort is still developing and growing.

You carefully considered our situation with your colleagues and determined a final proof survey is appropriate and the full capacity of the wells can be claimed in a final proof survey because the source facilities have been operated at full design capacity. Accordingly, Cline Butte Utility Company authorized me to proceed with the final proof survey.

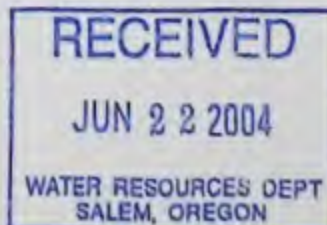
The capacities of all source facilities will be confirmed and compared with permit allocations in the final proof survey process. Until the final proof survey is completed and confirmed, Cline Butte Utility Company, Inc. will maintain their pending extension application to assure no jeopardy to the water right.

Thank you again for your significant assistance. We will forward a final proof survey within the next few months or report any related questions or issues. Again, we appreciate your assistance and invite your questions and comments at any time.

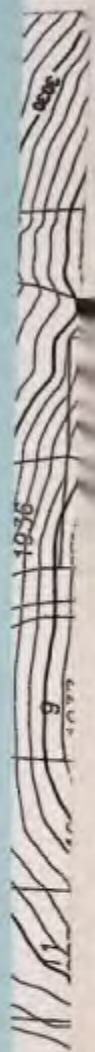
Sincerely,  
W&H Pacific, Inc.

Thomas A. Walker, P.E., CWRE

Cc: Alan VanVliet



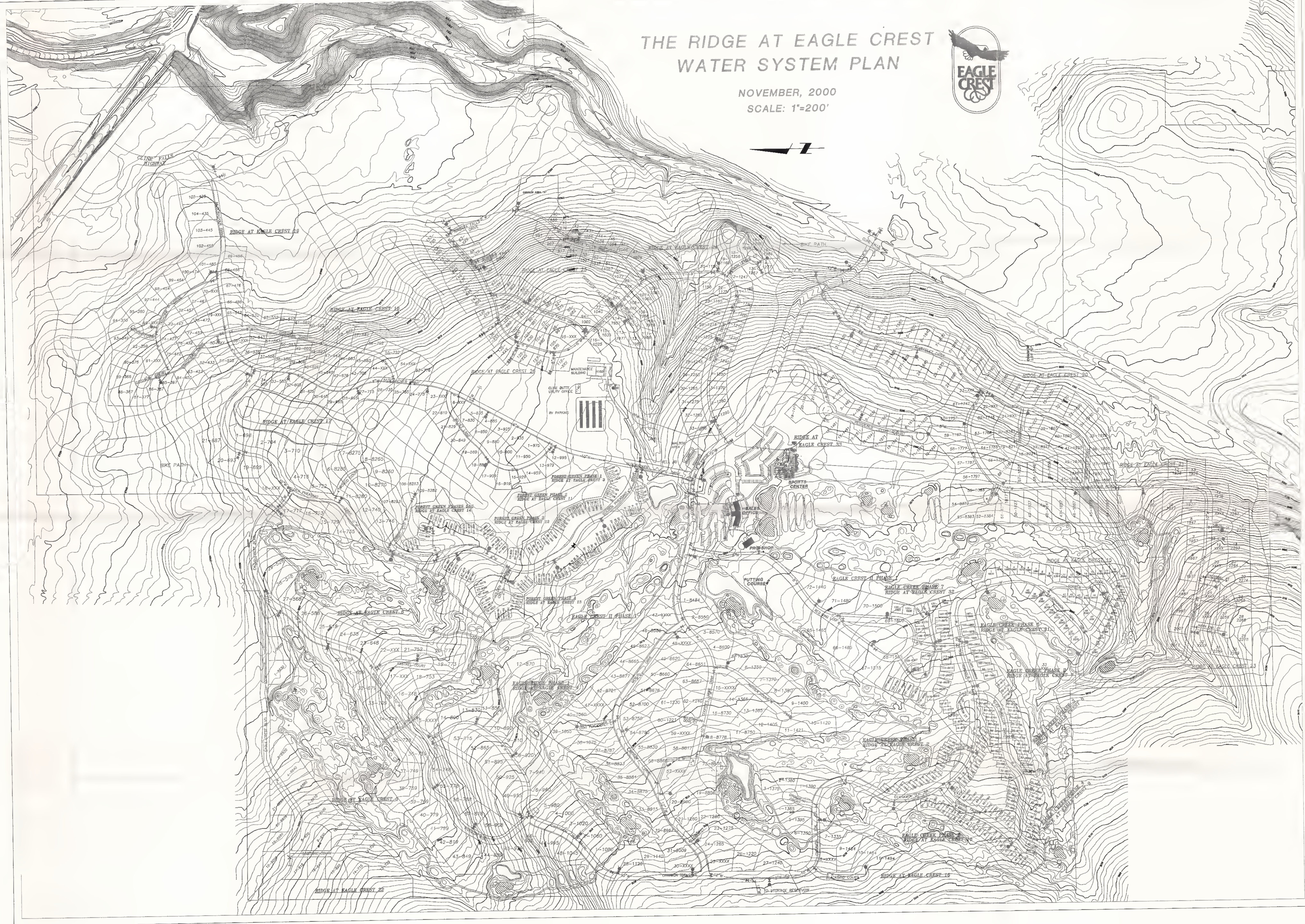








SCALE: 1"=200'



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