

Name
By
Address

Date filed
Priority
Action suspended until OK Fed

Return to applicant
Date of approval 10/5/94

CONSTRUCTION

Date for beginning 10/5/95
Date for completion 10/1/96
Extended to

Date for application of water 10/1/97
Extended to

PROSECUTION OF WORK

Form "A" filed 8/21/95
Form "B" filed 8/21/95
Form "C" filed

FINAL PROOF
MAR 22 2000

Blank mailed
Proof received
Date certificate issued FEB 22 2001

Application No. G12685
Permit No. G-11826
Certificate No. ~~78701~~

Superseded by
Cert No. 80526

Coon
Stream Index, Page No. 17
17-1560-0030
V 3 Craft Lake & area

FEES PAID

Date	Amount	Receipt No.
<u>10-4-91</u>	<u>400.00</u>	<u>79475</u>
<u>4-29-05</u>	<u>25.00</u>	<u>74290</u>

Cert. Fee

FEES REFUNDED

Date	Amount	Check No.
<u>5/12/05</u>	<u>2500</u>	<u>891212</u>

ASSIGNMENTS

Date	To Whom	Address	Volume	Page
<u>5-31-00</u>	<u>Brran + amy Arriola + Tony + Stephanie Arrida</u>	<u>1365 Nutmeg St. - Coquille 97923</u>	<u>8</u>	<u>704</u>
<u>and</u>	<u>NW Farm Cr Svcs, FLCA-POB</u>	<u>1490-Roseburg OR 97470-0356</u>	<u>"</u>	<u>"</u>

REMARKS

119 sent 8/22/95
permit G-11826 should be considered superseded by G-11826
T-9005 AUSE V 58 p 430

RECEIVED

Form A (690-9-77)
AUG 21 1995
WATER RESOURCES DEPT.
SALEM, OREGON

Application No. G-12685

NOTICE OF BEGINNING OF CONSTRUCTION

Harry G. Spencer, the holder of Permit No. G-11826

to appropriate the public waters of the state of Oregon, began the actual construction of the works described therein on the 1st day of November, 1994. Jim Mack, Well driller.

Remarks: We had the wells drilled for testing earlier (see Ralls Reports). We have now completed pump houses. 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 equipment which shows a substantial beginning of construction as authorized by your permit.

IN WITNESS WHEREOF

Harry G. Spencer
(Signature of Applicant)

Fill out, detach and mail to the Water Resources Department, Salem, OR 97310, when construction work is begun.

Mavalyn
541-673-3248
G-11826 (Per)
Status of Cert
Mike Williams
date
G-12685
FCSUS

RECEIVED

Form B (690-9-77)
AUG 21 1995
WATER RESOURCES DEPT.
SALEM, OREGON

Application No. G-12685

NOTICE

I, Harry G. Spencer, the holder of Permit No. G-11826

to appropriate the public waters of the state of Oregon, began the actual construction of the works described therein on the 15th day of November, 1994.

Remarks: We now have all PVC underground installed, sprinklers in, pumps in. We're ready to water. If the works have less capacity than that shown on the permit, or you have definitely abandoned part of the proposed development, you should so state in order that our records may not be unnecessarily encumbered.

IN WITNESS WHEREOF, I have hereunto set my hand this 19th day of November, 1994

Harry G. Spencer
(Signature of Applicant) P.O. Box 291 Langlois, OR 97450
(Address)

Fill out, detach and mail to the Water Resources Department, Salem, OR 97310, when construction work is completed.

ok

RECEIVED

Form A (690-9-77)

Application No. G-12685

NOTICE OF BEGINNING OF CONSTRUCTION

AUG 21 1995
WATER RESOURCES DEPT.
SALEM, OREGON

Harry G. Spencer, the holder of Permit No. G-11826

to appropriate the public waters of the state of Oregon, began the actual construction of the works described therein on the 1st day of November, 1994 Jim Mack, Well driller.

Remarks: We had the wells drilled for testing earlier (see Ralls Reports) We have now completed pump houses at both wells, and buried PVC mainlines.
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 7th day of November, 1994

Harry G. Spencer
(Signature of Applicant)

P.O. Box 291 Langlois, OR 97450
(Address)

Fill out, detach and mail to the Water Resources Department, Salem, OR 97310, when construction work is begun. SP*35567-690

RECEIVED

Form B (690-9-77)

Application No. G-12685

NOTICE OF COMPLETION OF CONSTRUCTION

AUG 21 1995
WATER RESOURCES DEPT.
SALEM, OREGON

I, Harry G. Spencer, the holder of Permit No. G-11826

to appropriate the public waters of the state of Oregon, completed the construction of the works described therein on the 15th day of November, 1994

Remarks: We now have the bogs built, all PVC underground installed, sprinklers in, pumps in. We're ready to water.
If the works have less capacity than described in the permit, or you have definitely abandoned part of the proposed development, you should so state in order that our records may not be unnecessarily encumbered.

IN WITNESS WHEREOF, I have hereunto set my hand this 19th day of November, 1994

Harry G. Spencer
(Signature of Applicant)

P.O. Box 291 Langlois, OR 97450
(Address)

Fill out, detach and mail to the Water Resources Department, Salem, OR 97310, when construction work is completed.

Handwritten initials/signature

RECEIVED

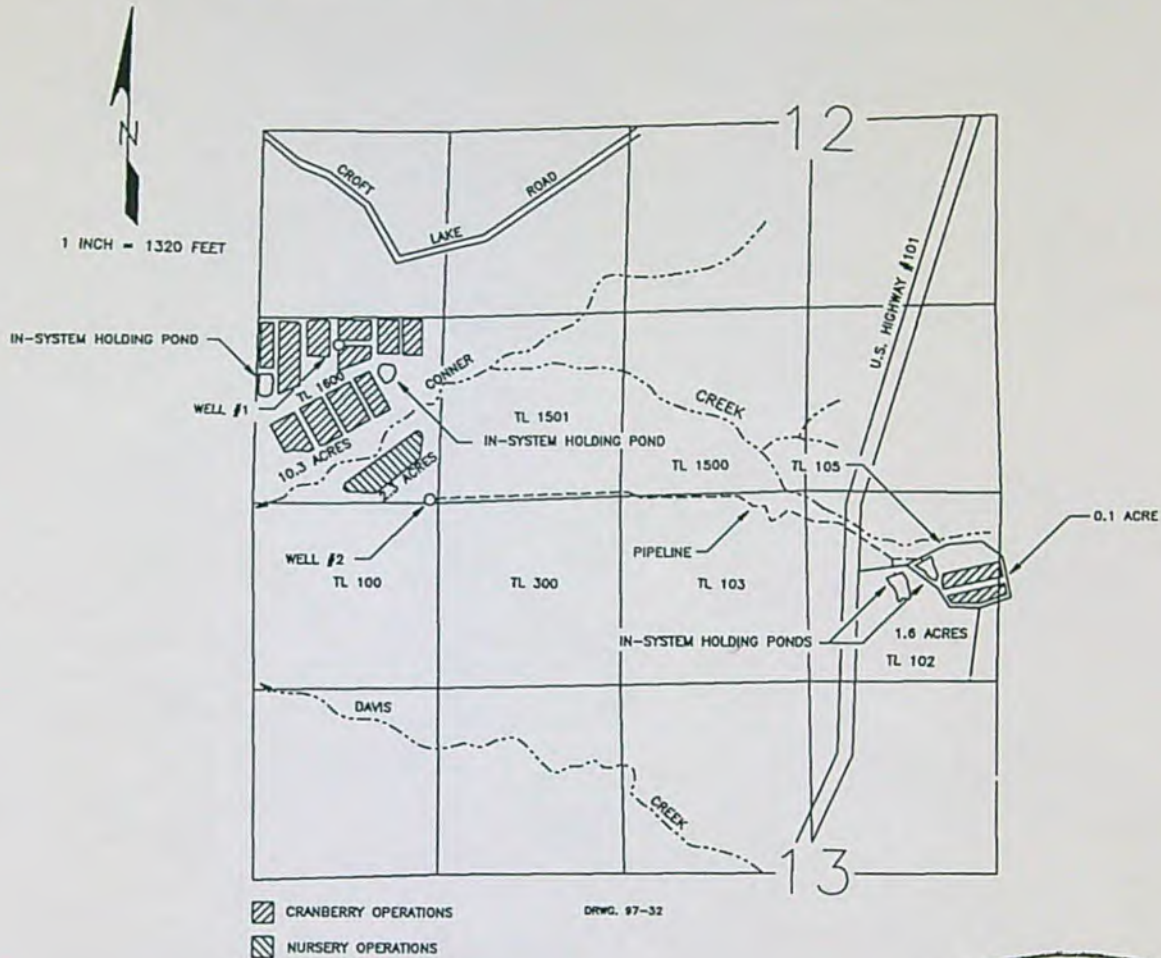
SEP 30 1997

WATER RESOURCES DEPT
SALEM OREGON

FINAL PROOF SURVEY MAP IN THE NAME OF HARRY G. SPENCER

SECTIONS 11, 12, & 13, TOWNSHIP 30 SOUTH, RANGE 15 WEST, W.M.

APPLICATION G-12685 PERMIT G-11826



Certified Water Right Examiner
#054 WRE
James F. Gosson
James F. Gosson
Nov. 19, 1987
STATE OF OREGON

WELL # 1 IS LOCATED 1100 FEET NORTH AND 660 FEET WEST; WELL #2 IS LOCATED 5 FEET NORTH AND 20 FEET WEST, BOTH BEING FROM THE SOUTHEAST CORNER OF SECTION 11 AND BOTH BEING WITHIN THE SE1/4 SE1/4 OF SECTION 11, TOWNSHIP 30 SOUTH, RANGE 15 WEST, W.M., COOS COUNTY.

THE PURPOSE OF THIS MAP IS TO IDENTIFY THE LOCATION OF THE WATER RIGHT. IT IS NOT INTENDED TO PROVIDE INFORMATION RELATIVE TO PROPERTY OWNERSHIP BOUNDARY LINES.

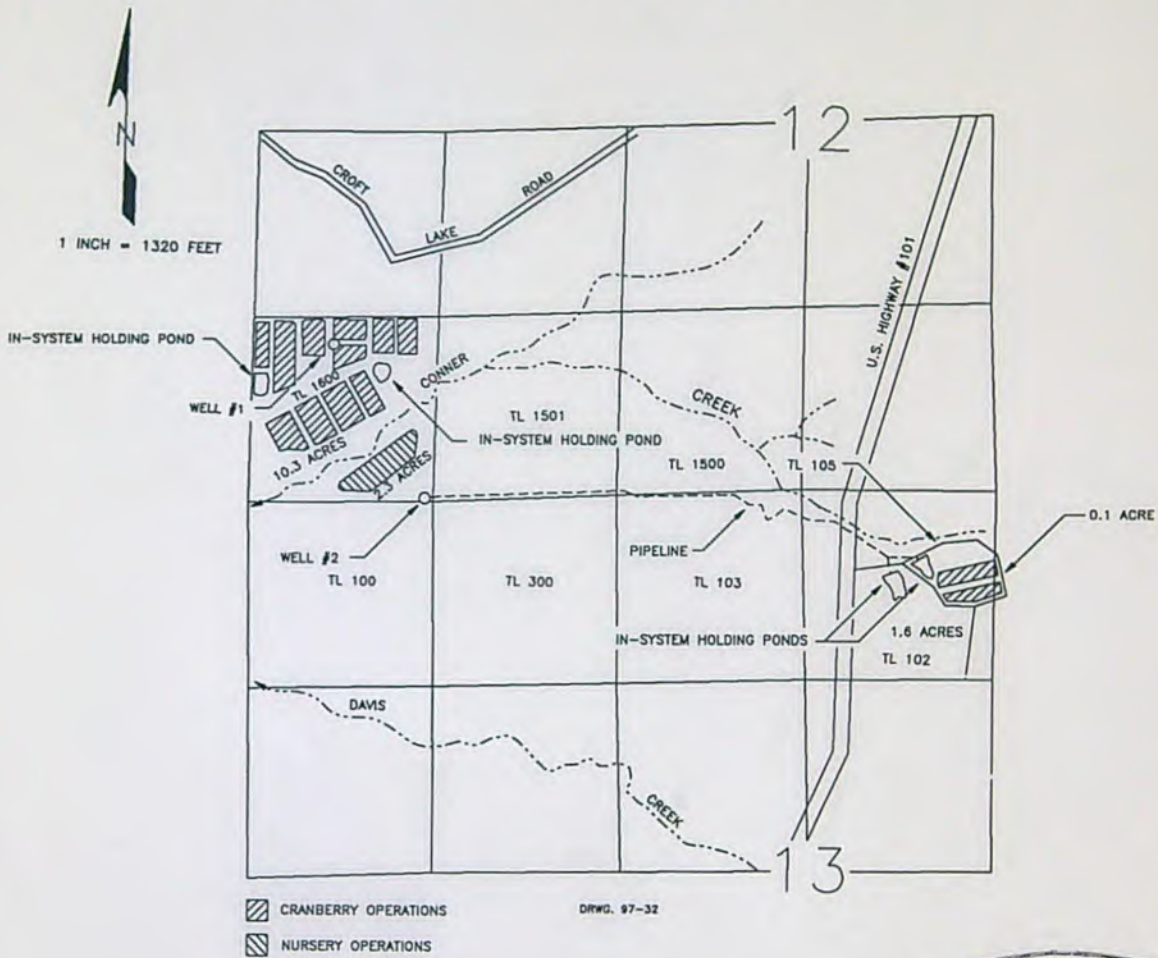
RECEIVED

SEP 30 1987
WATER RESOURCES DEPT
SALEM, OREGON

FINAL PROOF SURVEY MAP IN THE NAME OF HARRY G. SPENCER

SECTIONS 11, 12, & 13, TOWNSHIP 30 SOUTH, RANGE 15 WEST, W.M.

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RECEIVED

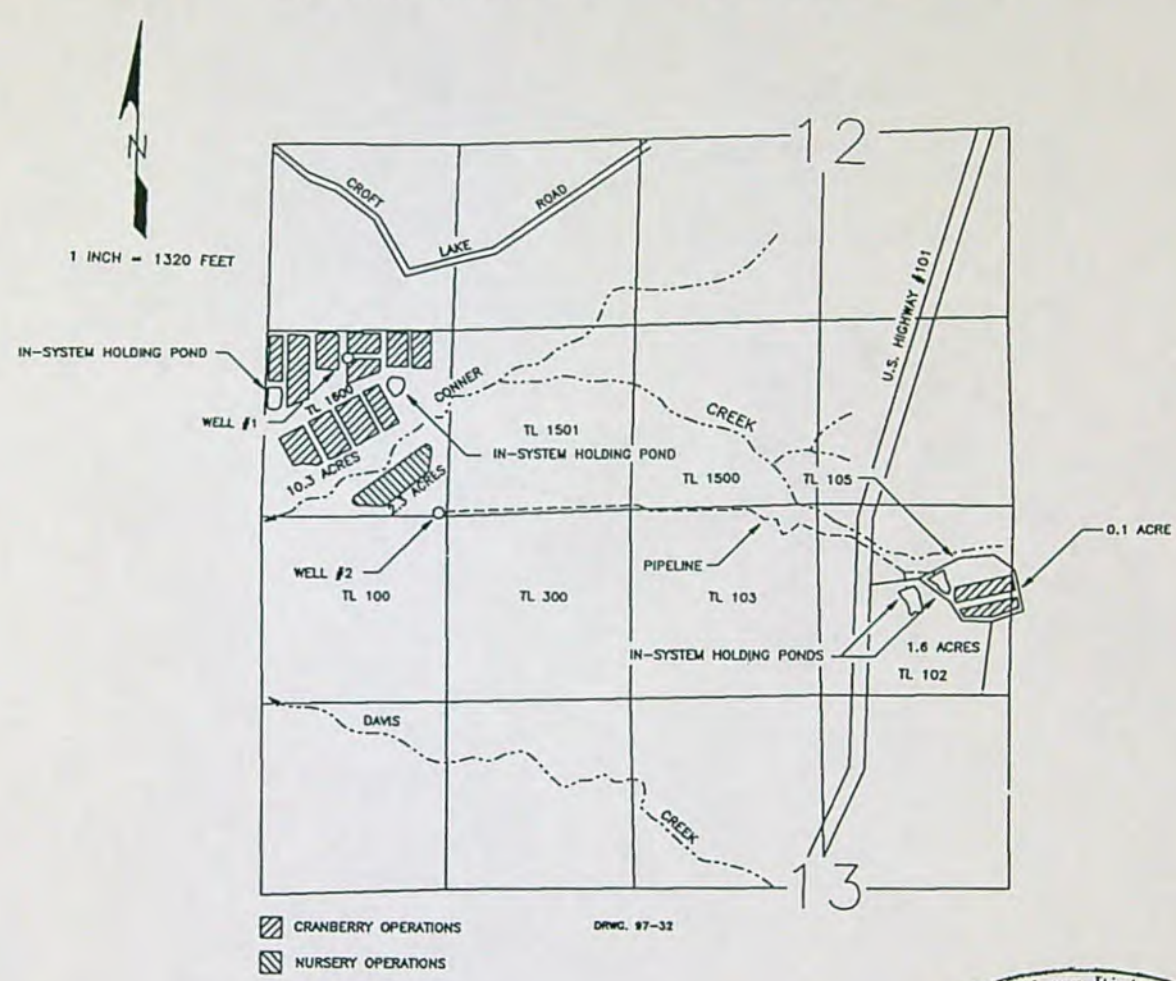
SEP 30 1987

WATER RIGHTS DIVISION
SALEM, OREGON

FINAL PROOF SURVEY MAP IN THE NAME OF HARRY G. SPENCER

SECTIONS 11, 12, & 13, TOWNSHIP 30 SOUTH, RANGE 15 WEST, W.M.

APPLICATION G-12685 PERMIT G-11826



Certified Water Right Examiner
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THE PURPOSE OF THIS MAP IS TO IDENTIFY THE LOCATION OF THE WATER RIGHT. IT IS NOT INTENDED TO PROVIDE INFORMATION RELATIVE TO PROPERTY OWNERSHIP BOUNDARY LINES.

TO: Water Rights Section

11/12, 1991

FROM: Groundwater/Hydrology Section

Meyer
Reviewer's Name

SUBJECT: Application G-12685

1. **PER THE S. Coast** Basin rules, one or more of the proposed POA's ^{is/}is not within 1/4 feet/mile of a surface water source (Conner Creek) and taps a groundwater source hydraulically connected to the surface water.

2. **BASED UPON OAR 690-09** currently in effect, I have determined that the proposed groundwater use
 - a. will, or } have the potential for substantial interference with the nearest surface water
 - b. will not } source, namely Conner Creek; or
 - c. will, if properly conditioned, adequately protect the surface water from interference:
 - i. The permit should contain condition #(s) _____;
 - ii. The permit should contain special condition(s) as indicated in "Remarks" below;
 - iii. The permit should be conditioned as indicated in item 4 below; or
 - d. will, with well reconstruction, adequately protect the surface water from substantial interference.

3. **BASED UPON** available data, I have determined that groundwater for the proposed use
 - a. will, or } likely be available in the amounts requested without injury to prior rights and/or
 - b. will not } within the capacity of the resource; or
 - c. can, if properly conditioned, avoid injury to existing rights or to the groundwater resource;
 - i. The permit should contain condition #(s) _____;
 - ii. The permit should contain special condition(s) as indicated in "Remarks" below;
 - iii. The permit should be conditioned as indicated in item 4 below.

4.
 - a. **THE PERMIT** should allow groundwater production from no deeper than _____ ft. below land surface;
 - b. The permit should allow groundwater production from no shallower than _____ ft. below land surface;
 - c. The permit should allow groundwater production only from the _____ groundwater reservoir between approximately _____ ft. and _____ ft. below land surface;
 - d. Well reconstruction is necessary to accomplish one or more of the above conditions.
 - e. One or more POA's commingle 2 or more sources of water. The applicant must select one source of water per POA and specify the proportion of water to be produced from each source.

REMARKS:

G-12685

STATE OF OREGON
WATER RESOURCES DEPARTMENT

INTEROFFICE MEMO

To: FILE

Date: October 6, 1992

From: MICHAEL ZWART

Subject: APPLICATION G-12685, HARRY SPENCER

Geologist Russell Ralls prepared a report, dated August 18, 1992, in support of this application. A copy was hand delivered to me by Kip Lombard at the August 28th Commission meeting. The principal conclusion of the report is that Conner Creek and its associated marsh are part of a perched water table which is separated from the marine terrace deposits developed by the applicant's wells. A review of the report prompted Donn Miller and me to review the file and earlier reports by Mr. Ralls, giving particular emphasis to the aquifer tests conducted at the two wells.

Mr. Ralls concludes in this latest report that Conner Creek and its marsh are perched on a layer of "ball clay." He believes that the clay acts as a confining bed for underlying confined aquifers that are actually in better hydraulic connection with the marine terrace deposits developed by the subject wells. He bases this conclusion on the prevalence of the clay encountered in many of the test borings and the deeper test well, and on one water level measurement in the deeper test well which indicated a lower head than Conner Creek for those confined aquifers.

I disagree with those conclusions. The aquifer developed by the subject wells is a water-table (unconfined) aquifer. This is supported by the aquifer tests covered in the earlier reports. The water levels in the wells has a higher head than Conner Creek, indicating a groundwater gradient toward the creek. Therefore, Conner Creek is likely in hydraulic connection with, and is a discharge area for, this water-table aquifer. The local presence of a clay layer, which appears to vary in thickness, may result in local steepening of the gradient and in a generally poor hydraulic connection with the creek. If the deeper confined aquifers encountered in the test well were actually hydraulically isolated from the creek, I would have expected the confined water level to have a higher head than the creek, resulting in a much lower groundwater gradient between the test well and the subject wells than is indicated in the cross-section in the report. I believe that the final water level reported for the test well may be depressed due to insufficient time (30 minutes) for the water level to equilibrate prior to measurement.

The aquifer test data were analysed to attempt to confirm or deny the presence of a recharge response. The data were not ideal for this purpose. In particular, the lack of any pre-test water level data and minimal water level recovery data required certain assumptions to be made regarding the test conditions. However, analysis of the drawdown data does not indicate that the wells are subject to a recharge response, at least during the first four days of pumping. Therefore, on this basis, it is tentatively concluded that the proposed use of groundwater may

Michael Zwart
October 6, 1992
Page 2

have low potential for substantial interference with Conner Creek, despite the fact that the wells develop a water-table aquifer that is hydraulically connected to it. A superseding review form is included with this memo. Permit condition 4I is recommended.

The three reports prepared by Mr. Ralls were based on work performed by him in support of his client's application. In the case of the earlier two reports, no communication with the Groundwater/Hydrology Section took place prior to his work. Had this occurred, it would likely have resulted in additional data being collected, allowing additional analyses to better verify the lack of a recharge response at the wells. Prior to undertaking such work on their own, it is recommended that applicants confer with staff hydrogeologists regarding the types of additional information that could be provided to attempt to rebut the presumption of hydraulic connection and/or the potential for substantial interference.

STATE OF OREGON
WATER RESOURCES DEPARTMENT

INTEROFFICE MEMO

To: FILE

Date: April 2, 1992

From: MICHAEL ZWART

Subject: APPLICATION G-12685, HARRY SPENCER

Geologist Russell Ralls called Donn Miller late on April 1st to request some of the material on file, including Sarah Meyer's notes and calculations with regard to the aquifer tests done by Ralls. He also wanted to know what sort of additional information could be provided to aid the applicant's chances of receiving a permit.

On April 2nd, Donn and I conferred about the requests and faxed him the information requested plus a copy of Division 9 rules. We also suggested the types of data that could be collected to rebut the Department's presumption of hydraulic connection. We both later spoke to Mr. Ralls by phone and answered some of his questions regarding hydrogeology and deferred some others to the Water Rights Section, if he wished to pursue them. These included the types of permit conditions, if one could be issued, that are possible or likely, and also whether permit issuance could be aided if it could be demonstrated that the consumptive use of the water is minimal, with the remainder providing groundwater recharge.

STATE OF OREGON
WATER RESOURCES DEPARTMENT

INTEROFFICE MEMO

To: FILE

Date: April 21, 1992

From: MICHAEL ZWART

Subject: APPLICATION G-12685, HARRY SPENCER

Geologist Russell Ralls called me to request whether additional information or testing could be suggested to improve the chances of permit issuance. I informed him that I was not as familiar with the file as are Sarah Meyer and Donn Miller, and perhaps there was information already collected by him to support an alternate interpretation, although I stated that this was doubtful. I told him that I'd review his reports for such information. In a phone conversation today, I indicated that nothing in the reports appeared to be in need of further analysis. At the same time, I suggested that he may wish not to explore additional work to attempt rebuttal of the Department's presumption of hydraulic connection until some action is taken on the Application in its present form.

STATE OF OREGON REMITTANCE ADVICE

TO SIGN UP FOR DIRECT DEPOSIT PAYMENT SERVICE AND RECEIVE CONVENIENT, ELECTRONIC PAYMENTS, LOG-ON TO <http://egov.oregon.gov/DAS/SCD/SFMS/ach.shtml> ON THE INTERNET. CLICK ON: FORMS AND BROCHURES THEN SELECT DIRECT DEPOSIT (ACH) AUTHORIZATION FORM.

WATER RESOURCES DEPARTMENT

(503) 986-0926 EXT. [REDACTED]

INVOICE NO.	INVOICE DATE	INVOICE DESCRIPTION	AGY	DOCUMENT	AMOUNT
		74290 - G12685 REVENUE REFUND	690	VP022024	25.00

mailed 5/12/05

Records have been redacted or withheld pursuant to the exemption for financial transfer records specified in ORS 192.345(27)

VENDOR NAME: NORTHWEST FARM CREDIT SERVICES	ISSUE DATE: 05/10/05	WARRANT AMOUNT: 25.00
---	----------------------	-----------------------

FOLD ON PERFORATION LINE BELOW BEFORE DETACHING.

DO NOT ACCEPT THIS CHECK UNLESS YOU CAN SEE A TRUE WATERMARK OF CHAIN-LINKED SHAPES WHEN HELD TO THE LIGHT

STATE OF OREGON
Dept of Administrative Services
To the State Treasurer, Salem, OR 97301-3896
WATER RESOURCES DEPARTMENT
(503) 986-0926 EXT.

96-10
1232

CHECK DATE
05/10/05



BANK
11 [REDACTED]

PAY THIS AMOUNT
\$25.00

DOCUMENT NO.
VP022024

*****TWENTY FIVE AND 00/100 DOLLARS

PAY TO THE ORDER OF:

NORTHWEST FARM CREDIT SERVICES
PO BOX 1490
ROSEBURG OR 97470

VOID AFTER 2 YEARS FROM DATE OF ISSUE

John J. Ford
AUTHORIZED SIGNATURE

THE FACE OF THIS CHECK HAS A COLORED BACKGROUND ** EXPLANATION OF ADDITIONAL SECURITY FEATURES INDICATED ON REVERSE SIDE

PUBLIC INTEREST REVIEW

The proposed water use described in Application # G-12685 has been evaluated according to the public interest standards set out in ORS 537.170 and OAR 690-11-195.

The Application requested the use of 0.357 cfs from ~~the/a~~ two wells ~~tributary to~~ within the South Coast Basin for the purpose(s) of cranberry use and nursery operations. The Technical Review Report limits the proposed use to 0.357 cfs of water from two wells for cranberry use on 12 acres and nursery operations on 4.0 acres

The proposed use described in Application # G-12685 is not within a category required to be submitted to the Commission.

The Director of the Water Resources Department has evaluated the Application for the proposed water use and made the following public interest determination.

TECHNICAL REVIEW

If satisfactory-

Water use Application # G-12685 r _____ ry Report of Technical Review.

The Technical Review revealed th _____ r use:

- a)-is not prohibited by statute _____ way criteria;
- b)-is a classified use under the applica _____ sin program or an application for the use has been filed under ORS 536.295 and OAR 690 Division 82;
- c)-is consistent with conditions previously imposed by the Commission on appropriations from the same source;
- d)-will not conflict with (an) existing water right(s);
- e)-is supported by an available source of water.

Janet

PUBLIC INTEREST REVIEW

The proposed water use described in Application # G-12685 has been evaluated according to the public interest standards set out in ORS 537.170 and OAR 690-11-195.

The Application requested the use of 0.357 cfs from ~~the/a~~ two wells ~~tributary to~~ within the South Coast Basin for the purpose(s) of cranberry use and nursery operations. The Technical Review Report limits the proposed use to 0.357 cfs of water from two wells for cranberry use on 12 acres and nursery operations on 4.0 acres

The proposed use described in Application # G-12685 is not within a category required to be submitted to the Commission.

The Director of the Water Resources Department has evaluated the Application for the proposed water use and made the following public interest determination.

TECHNICAL REVIEW

If satisfactory-

Water use Application # G-12685 received a Satisfactory Report of Technical Review.

The Technical Review revealed that the proposed water use:

- a)-is not prohibited by statute or scenic waterway criteria;
- b)-is a classified use under the applicable basin program or an application for the use has been filed under ORS 536.295 and OAR 690 Division 82;
- c)-is consistent with conditions previously imposed by the Commission on appropriations from the same source;
- d)-will not conflict with (an) existing water right(s);
- e)-is supported by an available source of water.

If unsatisfactory-

Water use Application # _____ received an Unsatisfactory Report of Technical Review.

The Technical Review conducted according to OAR 690-11-160 on the water use application revealed that the proposed water use:

- a)-is prohibited by statute or scenic waterway criteria;
- b)-is not a classified use under the applicable basin program and an application for the use has not been filed under ORS 536.295 and OAR 690, Division 82;
- c)-cannot be modified to be consistent with conditions previously imposed by the Commission on appropriations from the same source;
- d)-would conflict with (an) existing water right(s), or
- e)-water is not available from the source to support the proposed water use.

As the result of the above finding based on the Technical Review conducted on this water use Application, the Director concluded that the proposed water use would impair or be detrimental to the public interest.

na

PUBLIC INTEREST REVIEW
CHECKLIST

The Director of the Water Resources Department has evaluated the proposed water use, as described in Application # G-12685, in light of current and planned uses and reasonably anticipated future demands for water from the water source as established in the record.

The evaluation has recognized known beneficial uses of water, including but not limited to the categories described in OAR 690-11-195(3)(a)-(d).

The Director has reviewed the elements of the proposed water use and has based the public interest determination on evidence in the record which included the following:

I. Existing claims to water from the same source.

SB There are no conflicts with existing claims to water from the same source as is documented in the Report of Technical Review.

Comment: _____

II. Land use matters.

SB The local government where the proposed water use is located has acknowledged receipt of the Land Use Information Form and has filed no objections to the proposed appropriation.

Comment: _____

SB

Public notice of the proposed water use was sent to all local governments which have requested such notice and none of those local governments have filed objections to the proposed water use.

Comment: _____

SB

There is nothing in the record to indicate the proposed water use is incompatible with Statewide Planning Goals or local comprehensive plans.

Comment: _____

n/a

If local government approval has not been granted, there is nothing in the record to indicate conditions cannot be placed on the proposed water use to require local land use approval prior to initiation of the use.

Comment: _____

n/a

An applicant for municipal water use has submitted information showing the proposed water use is compatible with comprehensive plan policies concerning urban services, urban growth boundaries, and Public Facilities Plans.

Comment: _____

III. Identified environmental concerns.

SB

The proposed water use does not appropriate water from any water body listed to receive Total Maximum Daily Loads and therefore, the water body has not been defined as water quality limited according to Section 303(d)(1) of the federal Clean Water Act according to the information supplied by the Oregon Department of Environmental Quality.

Comment: _____

IV. The character and extent of other natural resources which are present in the water source basin.

SB

The Oregon Department of Fish and Wildlife (ODFW) has been notified of the proposed water use and has made no objections regarding fish and other aquatic and wildlife species and populations.

Comment: _____

SB

There are no listed threatened or endangered species in the water source according to the information supplied by the Oregon Department of Fish and Wildlife.

Comment: _____

V. Riparian characteristics.

SB

There is nothing in the record to indicate the proposed use is likely to be detrimental to the riparian characteristics of the water source. This riparian review is not applicable to groundwater sources.

Comment: _____

VI. Recreational use and potential of the water source and its basin area.

SB

There is nothing in the record to indicate a conflict with known or reasonably anticipated recreational use.

Comment: _____

VII. Agricultural potential of the area.

SB

There is nothing in the record to indicate the proposed water use will conflict with known or reasonably anticipated agricultural practices.

Comment: _____

VIII. Designated historic, cultural, or natural resource protection areas.

SD

There is nothing in the record to indicate any conflict with any known or reasonably anticipated historic, cultural, or natural resource designations.

Comment: _____

IX. Identified health or safety requirements.

SD

There nothing in the record to indicate any identified health and safety requirements.

Comment: _____

PUBLIC INTEREST REVIEW
FINDINGS AND CONCLUSIONS

This public interest determination has considered the following standards as set out in ORS 537.170(5):

- a) The conservation of the highest use of the water for all purposes, including irrigation, domestic use, municipal water supply, power development, public recreation, protection of commercial and game fishing and wildlife, fire protection, mining, industrial purposes, navigation, scenic attraction or any other beneficial use to which the water may be applied for which it may have a special value to the public.
- b) The maximum economic development of the waters involved.
- c) The control of the waters of this state for all beneficial purposes, including drainage, sanitation and flood control.
- d) The amount of waters available for appropriation for beneficial use.
- e) The prevention of wasteful, uneconomic, impracticable or unreasonable use of the waters involved.
- f) All vested and inchoate rights to the waters of this state or to the use of the waters of this state, and the means necessary to protect such rights.
- g) The state water resources policy formulated under ORS 536.295 to 536.350 and 537.505 to 537.525.

The Director of the Water Resources Department, pursuant to OAR 690-11-185(4), has considered the facts set forth in the Application and its supporting data, the Director's Report of Technical Review and any objections which met the requirements of OAR 690-11-170(1).


The Director of the Water Resources Department has evaluated the proposed water use with respect to the information in the record

of the Department and has made the following public interest determination.

The Director has determined that the proposed water use described in Application # G-12685:

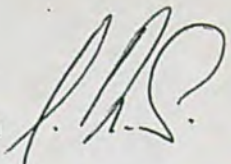
_____ WILL IMPAIR OR BE DETRIMENTAL TO THE PUBLIC INTEREST and therefore, the Director hereby proposes rejection of the application and shall schedule a contested case hearing.

83 WILL NOT IMPAIR OR BE DETRIMENTAL TO THE PUBLIC INTEREST and therefore, the Director shall issue a water use permit with appropriate conditions.


A. Reed Marbut, Administrator
Water Rights/Adjudication Division

Dated : September 1, 1994

MEMORANDUM

To: GINA BEAMAN, Fiscal
From: JERRY SAUTER, Water Rights Section 
Subject: Request for Refund
Date: 5/02/2005

Please refund \$ 25⁰⁰ to Per Below (unless otherwise noted below)
Application 6-12685 <-----> Receipt 74290

These funds are refunded due to:

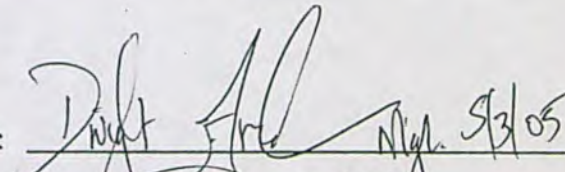
Other.. ASSIGNMENT NOT NEEDED

0408

Name : NORTHWEST FARM CREDIT SERVICES, FLCA

Address: P.O. Box 1490
ROSENBERG, OREGON 97470

AUTHORIZED BY:



(Signature and title)



Oregon

Theodore R. Kulongoski, Governor

Water Resources Department
North Mall Office Building
725 Summer Street NE, Suite A
Salem, OR 97301-1271
503-986-0900
FAX 503-986-0904

May 2, 2005

Northwest Farm Credit Services, FLCA
P.O. Box 1490
Roseburg, Oregon 97470

Reference: Application G-12685, Permit G-11826, Certificate 80526

The assignment from Brian C. and Amy J. Arriola, and Tony K. and Stephanie J. Arriola, and Northwest Farm Credit Services, FLCA, to Brian C. Arriola and Amy J. Arriola, husband and wife, and Tony K. Arriola and Stephanie J. Arriola, husband and wife, is not necessary as a certificate has been issued for this right. According to Oregon Water Law, once a certificate is issued, the right is appurtenant to the land for which it is issued irregardless of ownership.

Therefore, I am returning your assignment request and refunding the \$25.00 you submitted. I will note in the file that the Arriola's are the owners of record.

The file has been marked accordingly and the original request is enclosed. Receipt number 74290 covering the recording fee of \$25.00 is also enclosed. I have also enclosed a refund check.

Sincerely,

Jerry Sauter
Water Rights Program Analyst

Enclosure: Receipt 74290, Assignment request, refund check

cc: Watermaster 19

Brian C. and Amy J. Arriola, and Tony K. and Stephanie J. Arriola
Gina Beaman - Fiscal



Oregon

Theodore R. Kulongoski, Governor

Water Resources Department

North Mall Office Building
725 Summer Street NE, Suite A
Salem, OR 97301-1271
503-986-0900
FAX 503-986-0904

May 2, 2005

Northwest Farm Credit Services, FLCA
P.O. Box 1490
Roseburg, Oregon 97470

Reference: Application G-12685, Permit G-11826, Certificate 80526

The assignment from Brian C. and Amy J. Arriola, and Tony K. and Stephanie J. Arriola, and Northwest Farm Credit Services, FLCA, to Brian C. Arriola and Amy J. Arriola, husband and wife, and Tony K. Arriola and Stephanie J. Arriola, husband and wife, is not necessary as a certificate has been issued for this right. According to Oregon Water Law, once a certificate is issued, the right is appurtenant to the land for which it is issued irregardless of ownership.

Therefore, I am returning your assignment request and refunding the \$25.00 you submitted. I will note in the file that the Arriola's are the owners of record.

The file has been marked accordingly and the original request is enclosed. Receipt number 74290 covering the recording fee of \$25.00 is also enclosed. I have also enclosed a refund check.

Sincerely,

Jerry Sauter
Water Rights Program Analyst

Enclosure: Receipt 74290, Assignment request, refund check

cc: Watermaster 19

Brian C. and Amy J. Arriola, and Tony K. and Stephanie J. Arriola
Gina Beaman - Fiscal

**STATE OF OREGON
WATER RESOURCES DEPARTMENT**

725 Summer St. N.E. Ste. A
SALEM, OR 97301-4172
(503) 986-0900 / (503) 986-0904 (fax)

RECEIPT # **74290**

INVOICE # _____

RECEIVED FROM: Form Credit Services

APPLICATION	
PERMIT	
TRANSFER	

BY: _____

CASH: CHECK: # 47001530 OTHER: (IDENTIFY) _____

TOTAL REC'D \$ 25.00

1083 TREASURY 4170 WRD MISC CASH ACCT

0407 COPIES \$ _____
 OTHER: (IDENTIFY) \$ _____
 0243 I/S Lease _____ 0244 Muni Water Mgmt. Plan _____ 0245 Cons. Water _____

4270 WRD OPERATING ACCT

MISCELLANEOUS

0407 COPY & TAPE FEES \$ _____
 0410 RESEARCH FEES \$ _____
 0408 MISC REVENUE: (IDENTIFY) Assign \$ 25.00
 TC162 DEPOSIT LIAB. (IDENTIFY) _____ \$ _____
 0240 EXTENSION OF TIME \$ _____

WATER RIGHTS:

EXAM FEE		RECORD FEE
\$ _____	0202	\$ _____
\$ _____	0204	\$ _____
\$ _____		

WELL CONSTRUCTION

EXAM FEE		LICENSE FEE
\$ _____	0219	\$ _____
	0220	\$ _____

0201 SURFACE WATER
 0203 GROUND WATER
 0205 TRANSFER
 0218 WELL DRILL CONSTRUCTOR
 LANDOWNER'S PERMIT
 OTHER (IDENTIFY) _____

0536 TREASURY 0437 WELL CONST. START FEE

0211 WELL CONST START FEE \$ _____ CARD # _____
 0210 MONITORING WELLS \$ _____ CARD # _____
 OTHER (IDENTIFY) _____

0607 TREASURY 0467 HYDRO ACTIVITY LIC NUMBER

0233 POWER LICENSE FEE (FWWRD) \$ _____
 0231 HYDRO LICENSE FEE (FWWRD) \$ _____
 HYDRO APPLICATION \$ _____

TREASURY OTHER / RDX

FUND _____ TITLE _____
 OBJ. CODE _____ VENDOR # _____
 DESCRIPTION _____ \$ _____

RECEIPT: **74290**

DATED: 4/29/05 BY: J. Allen

RECEIVED

RECEIVED JUL 18 2000

MAY 31 2000

REQUEST FOR ASSIGNMENT WATER RESOURCES DEPT. SALEM, OREGON

We, (permit holder, applicant) Harry G. Spencer

PO Box 291 Langlois, OR 97450 (541) 347-4114
(mailing address) (City, State, Zip) (Phone)

CHECK ONE

- [X] hereby assign all my interest in and to application/permit;
[] hereby assign all my interest in and to a portion of application/permit (include a map showing portion of application assigned);
[] hereby assign a portion of my interest in and to the entire application/permit;

Application # G-12685, Permit #G-11826;

OR GR Statement #, GR Certificate of Registration # as filed in the office of the Water Resources Director. TO:

Northwest Farm Credit Services, FLCA and Brian C. Arriola and Amy J. Arriola, husband and wife and Tony K. Arriola and Stephanie J. Arriola, husband and wife (541) 673-3248 and (541) 396-7121 (name of new owner) (phone #)

2222 Northwest Kline Street, PO Box 1490 Roseburg, OR 97470-0356 (address) (city, state, zip)

1365 Nutmeg Street Coquille, OR 97423 (address) (city, state, zip)

RECEIVED

APR 29 2005

WATER RESOURCES DEPT SALEM, OREGON

(Note: If there are other owners of the property described in this Application, Permit of Certificate of Groundwater Registration you must attach a list of their names and addresses to this form.)

I hereby certify that I have notified all other owners of the property described in this Application, Permit or Certificate of Registration of this request for assignment.

Witness my hand this 23rd day of May, 2000
applicant/permit holder x Harry G. Spencer
applicant/permit holder

PLEASE DO NOT WRITE IN THIS BOX

STATE OF OREGON,)
) ss
County of Marion.)
I certify that the within was received by me on the 31st day of May, 2000 at 8 o'clock A. m., and was recorded in the Miscellaneous Records, Vol. 8 Page 704

Water Resources Director

The completed assignment must be submitted to the Water Resources Department together with a recording fee of \$25. Additional pages will cost \$5 per page.

WATER RESOURCES DEPARTMENT
158 12TH STREET NE
SALEM, OREGON 97310-0210

Handwritten initials: OR/DS M

G-12685



2222 N.W. Kline Street
P.O. Box 1490
Roseburg, Oregon 97470-0356
(541) 464-6700 / Fax (541) 464-6705

RECEIVED

APR 29 2005

WATER RESOURCES DEPT
SALEM, OREGON

April 28, 2005

Water Resources Department
725 Sumner NE Suite A
Salem, OR 97301-2430

RE: Application G-12685 Permit G-11826
Customer/Note 42560-441
Brian C. Arriola and Amy J. Arriola, Husband and Wife
Tony K. Arriola and Stephanie J. Arriola, Husband and Wife

To Whom It May Concern:

Northwest Farm Credit Services, FLCA, no longer has a security interest in the Application G-12685/Permit G-11826. Enclosed is the Request for Assignment, check 47001530 for \$25.00 and a copy of the original assignment dated May 31, 2000.

Please call if you have any questions.

Sincerely,

Linda Erickson
Financial Specialist

Enclosures

NOTE: CERTIFICATE ISSUED

Assignment Checklist

Y N Is the request on the proper Form ?

Y N Is the form completely filled out ? Name, all or partial assignment, App and permit #'s

Y N Does the name match the name on the file ?

Y N Has the form been dated and signed in ink ? Must be dated within 6 months.

Y N If for standard assignment, is the signature the same name as on the permit ? If the permit is in more than one name, must have all signatures.

Y N If for assignment in Absence of Permit Holder, has some kind of documentation of ownership been provided ?

Y N If for partial assignment, is there a map showing what part is being assigned ?

Y N Have the proper fees been submitted ? \$25 for the assignment and \$5 for each additional page of documentation.

NOTE: If any of the above is a NO answer, we send it back. *w/ letter, check*
4/29/05 C.U.

Records have been redacted or withheld pursuant to the exemption for financial transfer records specified in ORS 192.345(27)

Control No.: 47001530

Paid To:

Water Resources Department

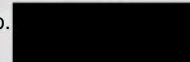
Comments:

Request for Water Assignment Fee/le
Application G-12685 and G-11826
Brian and Amy Arriola, Tony and Stephanie Arriola

Mail To:

Water Resources Department
725 Summer St. NE
Salem, Oregon 97301-2430

Customer No.
042560



Amount
\$25.00

received
APR 29 2005
WATER RESOURCES DEPT
SALEM, OREGON

Date: 04/28/2005

Amount:

\$25.00

Memo:

G-12685

STATE OF OREGON

COUNTY OF COOS

ORDER APPROVING A CHANGE IN USE

Pursuant to ORS 540.510 to 540.530, after notice was given and no objections were filed, and finding that no injury to existing water rights would result, this order approves as conditioned or limited herein, TRANSFER 9005 submitted by

BRIAN C. AND AMY J. ARRIOLA, TONY K. AND STEPHANIE J. ARRIOLA
1365 NUTMEG STREET
COQUILLE, OREGON 97423.

The right to be modified, as evidenced by a portion of Certificate 76791, was perfected under Permit G-11826 with a date of priority of OCTOBER 4, 1991. The right allows the use of WELL No. 1 IN THE CROFT LAKE BASIN, for NURSERY OPERATIONS. The amount of water to which this right is entitled is limited to an amount actually beneficially used and shall not exceed 0.008 cubic foot per second, if available at Well No. 1: SE¼ SE¼, SECTION 11, TOWNSHIP 30 SOUTH, RANGE 15 WEST, W.M.; 1100 FEET NORTH AND 660 FEET WEST FROM THE SE CORNER OF SECTION 11, or its equivalent in case of rotation, measured at the point of diversion from the source.

The amount of water diverted for the irrigation of containerized nursery plants is limited to ONE-FORTIETH of one cubic foot per second (or it's equivalent) and shall be further limited to a

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 137-004-080 and OAR 690-01-005 you may either petition for judicial review or petition the Director for reconsideration of this order.

diversion of not to exceed 5.0 acre-feet per year. The amount of water diverted for the irrigation of in ground nursery plants is limited to ONE-EIGHTIETH of one cubic foot per second (or it's equivalent) and 2.5 acre feet per acre per year. The use of nursery operation may be made at anytime, during the period of allowed use specified above, provided that the use is beneficial. For the irrigation of any other crop, the amount of water diverted is limited to ONE-EIGHTIETH of one cubic foot per second (or it's equivalent) and 2.5 acre feet per acre during the irrigation season of each year.

The use shall conform to any reasonable rotation system ordered by the proper state officer.

The authorized place of use is located as follows:

SE¼ SE¼ 2.3 ACRES
SECTION 11
TOWNSHIP 30 SOUTH, RANGE 15 WEST, W.M.

The right to use the water for the above purpose is restricted to beneficial use on the lands or place of use described.

The applicant proposes to change the use to CRANBERRY OPERATIONS.

THIS CHANGE TO AN EXISTING WATER RIGHT MAY BE MADE PROVIDED THE FOLLOWING CONDITIONS ARE MET BY THE WATER USER:

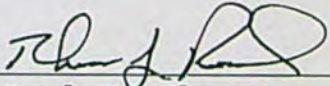
1. The proposed change shall be completed on or before October 1, 2004.
2. The use of water for cranberry operations shall be limited to the following amounts:
 - A. A maximum of ONE-FORTIETH of one cubic foot per second per acre not to exceed 0.008 cfs; further limited to no more than 3.0 acre-feet per acre for irrigating cranberries during the irrigation season of each year.

- B. This right together with the remaining right evidenced by Water Right Certificate 80526 may not exceed a total quantity of 0.178 cfs diverted from Well No. 1; further limited to a diversion of no more than a total quantity of 0.356 cfs from both Well No. 1 and Well No. 2.
3. Prior to diverting water the water user shall install and maintain a headgate, an in-line flow meter, weir, or other suitable device for measuring and recording the quantity of water diverted. The type and plans of the headgate and measuring device must be approved by the Department prior to beginning construction and shall be installed under the general supervision of the Department.

Certificate 76791 is canceled. A new certificate will be issued to confirm that portion of the right NOT involved in this transfer. When satisfactory proof of the completed change is received, a new certificate confirming this water right will be issued.

WITNESS the signature of the Water Resources

Director, affixed DECEMBER 31, 2003.



F2 Paul R. Cleary

STATE OF OREGON

COUNTY OF COOS

CERTIFICATE OF WATER RIGHT

THIS CERTIFICATE ISSUED TO

BRIAN C. AND AMY J. ARRIOLA AND NORTHWEST FARM CREDIT SERVICES, FLCA
TONY K. AND STEPHANIE J. ARRIOLA P.O. BOX 1490
1365 NUTMEG STREET ROSEBURG, OREGON 97470-0356
COQUILLE, OREGON 97423

confirms the right to use the waters of WELLS No. 1 AND NO. 2 IN THE CROFT LAKE BASIN, for CRANBERRY OPERATIONS ON 12.0 ACRES.

This right was perfected under Permit G-11826. The date of priority is OCTOBER 4, 1991. The amount of water to which this right is entitled is limited to an amount actually beneficially used and shall not exceed 0.348 CUBIC FOOT PER SECOND BEING 0.178 FOR CRANBERRY OPERATIONS FROM WELL NO. 1 AND 0.178 CUBIC FOOT PER SECOND FOR CRANBERRY OPERATIONS FROM WELL NO. 2 PROVIDED THE TOTAL QUANTITY OF WATER DIVERTED SHALL NOT EXCEED 0.348 CUBIC FOOT PER SECOND, or its equivalent in case of rotation, measured at the well.

The points of appropriation are located as follows:

WELL NO.1-SE $\frac{1}{4}$ SE $\frac{1}{4}$, SECTION 11, TOWNSHIP 30 SOUTH, RANGE 15 WEST, W.M.; 1100 FEET NORTH AND 660 FEET WEST FROM THE SE CORNER OF SECTION 11; and

WELL NO. 2-SE $\frac{1}{4}$ SE $\frac{1}{4}$, SECTION 11, TOWNSHIP 30 SOUTH, RANGE 15 WEST, W.M.; 5 FEET NORTH AND 20 FEET WEST FROM THE SE CORNER OF SECTION 11.

The amount of water used for cranberry operations, together with the amount secured under any other right existing for the same lands, is limited to: 0.15 cubic foot per second per acre for temperature control; 0.05 cubic foot per second per acre for flood harvesting or pest control; and ONE-FORTIETH of one cubic foot per second per acre and 3.0 acre-feet per acre for each acre irrigated during the irrigation season of each year for irrigating cranberries.

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

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

SE $\frac{1}{4}$ SE $\frac{1}{4}$ 10.3 ACRES
SECTION 11
NE $\frac{1}{4}$ NE $\frac{1}{4}$ 0.1 ACRES
NW $\frac{1}{4}$ NE $\frac{1}{4}$ 1.6 ACRES
SECTION 13
TOWNSHIP 30 SOUTH, RANGE 15 WEST, W.M.

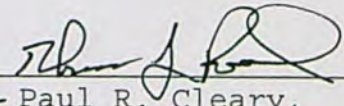
This certificate describes that portion of the water right confirmed by Certificate 76791, State Record of Water Right Certificates, NOT modified by the provisions of an order of the Water Resources Director entered DEC 31 2003, approving Transfer Application 9005.

The issuance of this superseding certificate does not confirm the status of the water right in regard to the provisions of ORS 540.610 pertaining to forfeiture or abandonment.

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 confirmed herein may be made only at times when sufficient water is available to satisfy all prior rights, including rights for maintaining instream flows.

WITNESS the signature of the Water Resources

Director, affixed DECEMBER 31, 2003.



For Paul R. Cleary,



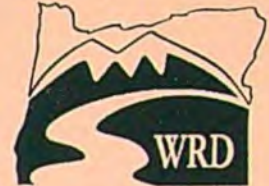
G12685

USER-ID 24715

2000

Oregon Water Resources Department
October 2000 through September 2001
Annual Water Use - Monthly Quantities Form

2001



Facility <input type="checkbox"/> POD-ID <input type="checkbox"/>	Well # 1 36443 <i>af/m</i>	Well # 2 36444 <i>af/m</i>			
October - 2000	4.8 AF	5.2 AF			
November - 2000	3.3 AF	4.8 AF			
December - 2000	0	0			
January - 2001	0	0			
February - 2001	0	0			
March - 2001	0	0			
April - 2001	0	1.4 AF			
May - 2001	0	0.8 AF			
June - 2001	0	2.8 AF			
July - 2001	0	3.8 AF			
August - 2001	0	5.2 AF			
September - 2001	0	4.6 AF			
TOTAL *	8.1 AF	28.6 AF			

RECEIVED
FEB 25 2002
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-foot)

Describe method of measuring the water used: Flow Meters. If use is irrigation, total number acres irrigated 14.25

I certify this information is true and accurate to the best of my knowledge.

Stephan Amodeo
Signature

owner
Title

Reporting Entity

02-14-02
Date



RECEIVED

JAN 04 2001

WATER RESOURCES DEPT.
SALEM, OREGON

App: G12685

USER-ID 26775

Oregon Water Resources Department
October 1999 through September 2000
Annual Water Use - Monthly Quantities Form



DM

Facility <input type="checkbox"/> POD-ID <input type="checkbox"/>	Well #1 36443 CR/NU	Well #2 36447 CR/NU				
October - 1999	6.3 AF	6.5 AF				
November - 1999	3.1 AF	4.2 AF				
December - 1999	∅	∅				
January - 2000	|	∅				
February - 2000		∅				
March - 2000		3.8 AF				
April - 2000		5.5 AF				
May - 2000		3.3 AF				
June - 2000		3.9 AF				
July - 2000		6.2 AF				
August - 2000		6.5 AF				
September - 2000		6.3 AF				
TOTAL *		9.4 AF	46.2 AF			

* 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 Meters. If use is irrigation, total number acres irrigated 14.25

I certify this information is true and accurate to the best of my knowledge.

Tony Arriola
Signature

Title

Sea Mist Cranberries, LLC
Reporting Entity

12-28-2000
Date

Tony K Arriola
Name - Please Print

Please complete and mail to: Water Resources Department; Water Use Reporting Program;
158 12th Street NE; Salem, OR 97310-0210



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

FEBRUARY 22, 2001

NOTICE OF CERTIFICATE ISSUANCE

Attached is a certificate that confirms the water right established under the terms of a permit issued by this department. The water right is now appurtenant to the specific place where the use was established as described by the certificate. The owner of the land is the owner of the water right. The water right is limited to a specific amount of water, but not more than can be beneficially used for the purposes stated within the certificate.

This is a final 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 **60 days of the mailing date stated above** as specified by ORS 183.484(2).

This statement of judicial review rights is required under ORS 536.075; it does not alter or add to existing review rights or create review rights that are not otherwise provided by law.

Under ORS 537.260 and 537.270, a water right certificate may be contested before the Water Resources Department within three (3) months of the date it is issued. If a certificate is contested, the contestant shall be offered an administrative hearing.

Oregon law does not allow the Director to reissue a certificate because of a change in the ownership. The water must be controlled and not wasted. To change the location of the point of diversion, the character of use, or the location of use requires the advance approval of the Water Resources Director.

If any portion of this water right is not used for five or more consecutive years, that portion of the right may be subject to forfeiture according to ORS 540.610. Land enrolled in a Federal Reserve Program is not subject to forfeiture during the period of enrollment. Other exceptions to forfeiture are explained in ORS 540.610.

If you have any questions please contact Steve Brown at (503) 378-8455, extension 263, or toll free (within Oregon) at 1-800-624-3199, ext. 263.

Front Page of Certificate 76791.

M:\groups\wr\forms\certperm
original to certificate holder, copy to file

STATE OF OREGON

COUNTY OF COOS

CERTIFICATE OF WATER RIGHT

THIS CERTIFICATE ISSUED TO

BRIAN C. AND AMY J. ARRIOLA AND NORTHWEST FARM CREDIT SERVICES, FLCA
TONY K. AND STEPHANIE J. ARRIOLA PO BOX 1490
1365 NUTMEG STREET ROSEBURG, OR 97470-0356
COQUILLE, OR 97423

confirms the right to use the waters of WELLS NO. 1 AND NO. 2 in the CROFT LAKE BASIN for NURSERY OPERATIONS ON 2.3 ACRES AND CRANBERRY OPERATIONS ON 12.0 ACRES.

This right was perfected under Permit G-11826. The date of priority is OCTOBER 4, 1991. The amount of water to which this right is entitled is limited to an amount actually beneficially used and shall not exceed 0.356 CUBIC FOOT PER SECOND(CFS); BEING 0.178 CFS FOR CRANBERRY OPERATIONS AND 0.008 CFS FOR NURSERY OPERATIONS FROM WELL NO. 1 AND 0.178 CFS FOR CRANBERRY OPERATIONS FROM WELL NO. 2 PROVIDED THE TOTAL QUANTITY OF WATER DIVERTED SHALL NOT EXCEED 0.356 CFS, or its equivalent in case of rotation, measured at the well.

The wells are located as follows:

WELL NO. 1 - SE 1/4 SE 1/4, SECTION 11, TOWNSHIP 30 SOUTH, RANGE 15 WEST, W.M.; 1100 FEET NORTH AND 660 FEET WEST FROM THE SE CORNER OF SECTION 11; AND

WELL NO. 2 - SE 1/4 SE 1/4, SECTION 11, TOWNSHIP 30 SOUTH, RANGE 15 WEST, W.M.; 5 FEET NORTH AND 20 FEET WEST FROM THE SE CORNER OF SECTION 11.

The amount of water diverted for CRANBERRY OPERATIONS, together with amounts secured under any other rights existing for the same lands, is limited as follows: For temperature control, 0.15 cubic foot per second per acre; For flood harvesting or pest control, 0.05 cubic foot per second per acre; For irrigation of cranberries, ONE-FORTIETH of one cubic foot per second and 3.0 acre-feet per acre for each acre irrigated during the irrigation season of each year. For the irrigation of any other crop, ONE-EIGHTIETH of one cubic foot per second and 2.5 acre-feet per acre for each acre irrigated during the irrigation season of each year.

The amount of water used for NURSERY OPERATIONS is limited to a diversion of 0.15 cubic foot per second per acre. For the irrigation of **containerized nursery plants**, the amount of water diverted is limited to ONE-FORTIETH of one cubic foot per second (or its equivalent) and 5.0 acre feet per acre per year. For the irrigation of **in ground nursery plants** the amount of water diverted is limited to ONE-EIGHTIETH of one cubic foot per second (or its equivalent) and 2.5 acre feet per acre per year. The use of water for NURSERY OPERATIONS may be made at anytime, during the period of allowed use specified above, that the use is beneficial. For the irrigation of **any other crop**, the amount of water diverted is limited to ONE-EIGHTIETH of one cubic foot per second (or its equivalent) and 2.5 acre feet per acre during the irrigation season of each year.

If substantial interference with a senior water right occurs due to withdrawal of water from any well listed on this permit, then use of water from the wells shall be discontinued or reduced and/or the schedule of withdrawal shall be regulated until or unless the Department approves or implements an alternative administrative action to mitigate the interference. The Department encourages junior and senior appropriators to jointly develop plans to mitigate interferences.

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

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

	<u>Cranberry Operations</u>	<u>Nursery Operations</u>
SE 1/4 SE 1/4 SECTION 11	10.3 ACRES	2.3 ACRES
NE 1/4 NE 1/4	0.1 ACRE	
NW 1/4 NE 1/4 SECTION 13	1.6 ACRES	
TOWNSHIP 30 SOUTH, RANGE 15 WEST, W.M.		

Measurement, recording and reporting conditions:

- A. The water user shall install a meter or other suitable measuring device as approved by the Director. 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 well shall be maintained in accordance with the General Standards for the Construction and Maintenance of Water Wells in Oregon.

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

The right to use water for the above purpose is restricted to beneficial use, without waste, on the lands or place of use described. The water user is advised that new regulations may require use of best practical technologies or conservation practices to achieve this end.

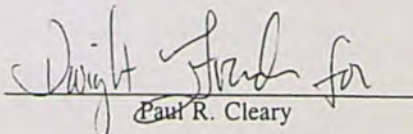
By law, the land use associated with this water use must be in compliance with statewide land-use goals and any local acknowledged land-use plan.

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

The right to use water for the above purpose is restricted to beneficial use on the lands or place of use described.

The Director finds the use of water described by this right, as conditioned, will not impair or be detrimental to the public interest.

WITNESS the signature of the Water Resources Director, affixed FEBRUARY 22, 2001.


 Paul R. Cleary

Recorded in State Record of Water Right Certificates numbered 76791.

RECEIVED

SEP 30 1987

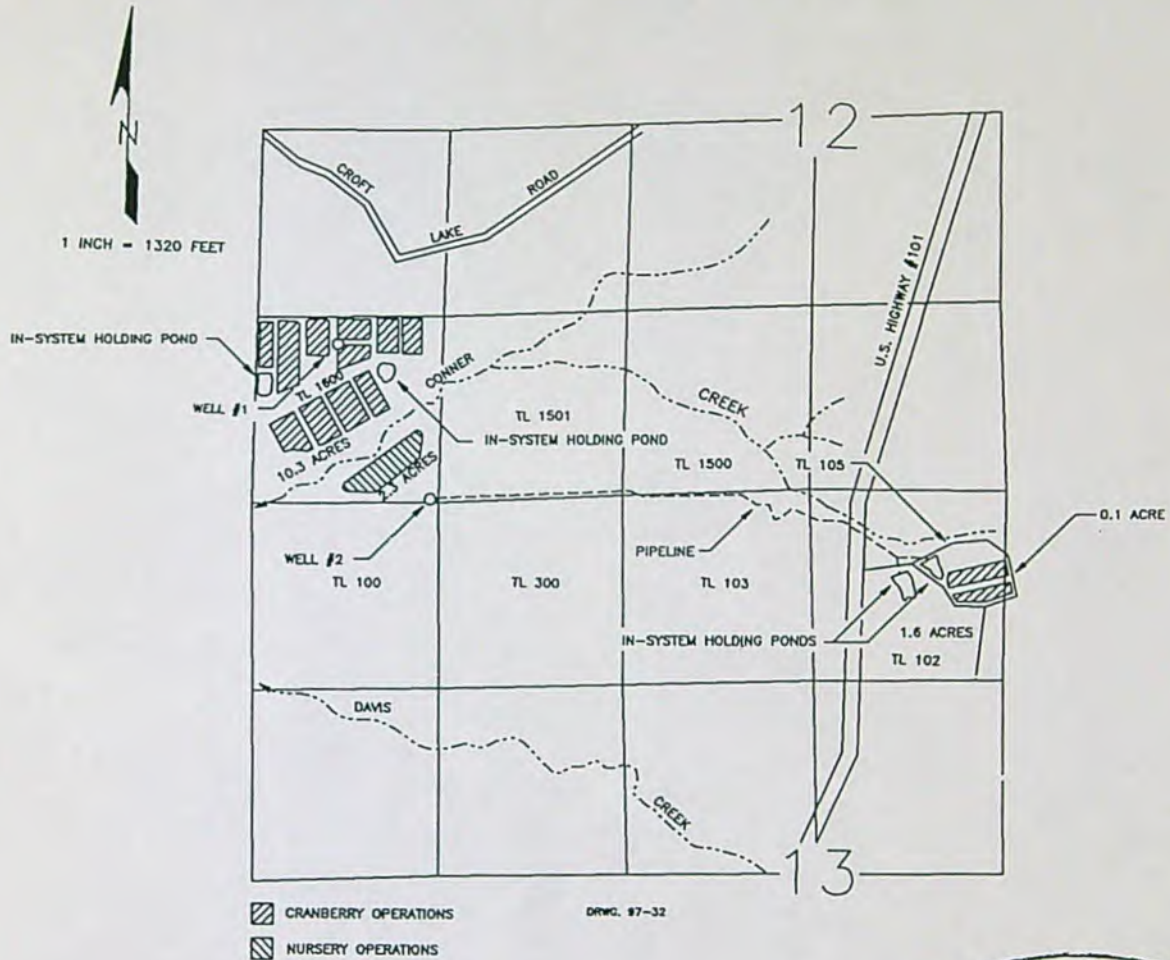
WATER RESOURCES DEPT
SALEM, OREGON

FINAL PROOF SURVEY MAP IN THE NAME OF HARRY G. SPENCER

SECTIONS 11, 12, & 13, TOWNSHIP 30 SOUTH, RANGE 15 WEST, W.M.

APPLICATION G-12685

PERMIT G-11826



Certified Water Right Examiner
#054 WRE
James F. Gosson
James F. Gosson
Nov. 19, 1987
STATE OF OREGON

WELL # 1 IS LOCATED 1100 FEET NORTH AND 660 FEET WEST; WELL #2 IS LOCATED 5 FEET NORTH AND 20 FEET WEST, BOTH BEING FROM THE SOUTHEAST CORNER OF SECTION 11 AND BOTH BEING WITHIN THE SE1/4 SE1/4 OF SECTION 11, TOWNSHIP 30 SOUTH, RANGE 15 WEST, W.M., COOS COUNTY.

THE PURPOSE OF THIS MAP IS TO IDENTIFY THE LOCATION OF THE WATER RIGHT. IT IS NOT INTENDED TO PROVIDE INFORMATION RELATIVE TO PROPERTY OWNERSHIP BOUNDARY LINES.

STATE OF OREGON

COUNTY OF COOS

PROPOSED CERTIFICATE OF WATER RIGHT

OK,
FINAL
5/22/00
[Signature]

THIS CERTIFICATE ISSUED TO

~~HARRY G. SPENCER~~
~~c/o SEA MIST FARMS~~
~~P.O. BOX 239~~
LANGLOIS, OR 97450

confirms the right to use the waters of WELLS NO. 1 AND NO. 2 in the CROFT LAKE BASIN for NURSERY OPERATIONS ON 2.3 ACRES AND CRANBERRY OPERATIONS ON 12.0 ACRES.

This right was perfected under Permit G-11826. The date of priority is OCTOBER 4, 1991. The amount of water to which this right is entitled is limited to an amount actually beneficially used and shall not exceed 0.356 CUBIC FOOT PER SECOND(CFS); BEING 0.178 CFS FOR CRANBERRY OPERATIONS AND 0.008 CFS FOR NURSERY OPERATIONS FROM WELL NO. 1 AND 0.178 CFS FOR CRANBERRY OPERATIONS FROM WELL NO. 2 PROVIDED THE TOTAL QUANTITY OF WATER DIVERTED SHALL NOT EXCEED 0.356 CFS, or its equivalent in case of rotation, measured at the well.

The wells are located as follows:

WELL NO. 1 - SE 1/4 SE 1/4, SECTION 11, TOWNSHIP 30 SOUTH, RANGE 15 WEST, W.M.; 1100 FEET NORTH AND 660 FEET WEST FROM THE SE CORNER OF SECTION 11; AND

WELL NO. 2 - SE 1/4 SE 1/4, SECTION 11, TOWNSHIP 30 SOUTH, RANGE 15 WEST, W.M.; 5 FEET NORTH AND 20 FEET WEST FROM THE SE CORNER OF SECTION 11.

The amount of water diverted for CRANBERRY OPERATIONS, together with amounts secured under any other rights existing for the same lands, is limited as follows: For temperature control, 0.15 cubic foot per second per acre; For flood harvesting or pest control, 0.05 cubic foot per second per acre; For irrigation of cranberries, ONE-FORTIETH of one cubic foot per second and 3.0 acre-feet per acre for each acre irrigated during the irrigation season of each year. For the irrigation of any other crop, ONE-EIGHTIETH of one cubic foot per second and 2.5 acre-feet per acre for each acre irrigated during the irrigation season of each year.

The amount of water used for NURSERY OPERATIONS is limited to a diversion of 0.15 cubic foot per second per acre. For the irrigation of containerized nursery plants, the amount of water diverted is limited to ONE-FORTIETH of one cubic foot per second (or its equivalent) and 5.0 acre feet per acre per year. For the irrigation of in ground nursery plants the amount of water diverted is limited to ONE-EIGHTIETH of one cubic foot per second (or its equivalent) and 2.5 acre feet per acre per year. The use of water for NURSERY OPERATIONS may be made at anytime, during the period of allowed use specified above, that the use is beneficial. For the irrigation of any other crop, the amount of water diverted is limited to ONE-EIGHTIETH of one cubic foot per second (or its equivalent) and 2.5 acre feet per acre during the irrigation season of each year.

If substantial interference with a senior water right occurs due to withdrawal of water from any well listed on this permit, then use of water from the wells shall be discontinued or reduced and/or the schedule of withdrawal shall be regulated until or unless the Department approves or implements an alternative administrative action to mitigate the interference. The Department encourages junior and senior appropriators to jointly develop plans to mitigate interferences.

ISSUE TO:

NORTHWEST FARM CREDIT SERVICES, FLCA
P O Box 1490
ROSEBURG OR 97470-0356 ; AND
BRIAN C. AND AMY J. ARRIOLA
TONY K. AND STEPHANIE J. ARRIOLA
1365 NUTMEG STREET
COQUILLE, OR 97423



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

June 19, 2000

BRIAN & AMY ARRIOLA
1365 NUTMET ST
COQUILLE OR 97423

REFERENCE: Files 69631 & G-12685

The assignments of Permits 50603 and G-11826 from Harry Spencer/Growth Unlimited Tree Farm to you, Tony and Stephanie Arriola, and Northwest Farm Credit Services, FLCA have been recorded in the records of the Water Resources Department. Our records have been changed accordingly and the original assignments are enclosed.

Our receipt number 37901 covering the \$50 recording fee has been sent to Northwest Farm Credit Services, FLCA.

If you have any questions, please contact me at the number above, or toll-free 1-800-624-3199.

Sincerely,

Dallas S. Miller
Water Rights Specialist

DSM:jh

enclosure

cc: Watermaster # 19
John Prahar, CWRE
Harry Spencer - PO Box 291 - Langlois, OR 97450
Tony & Stephanie Arriola - 1365 Nutmeg St. - Coquille, OR 97423
Northwest Farm Credit Services, FLCA - PO Box 1490 - Roseburg, OR 97470-0356



G12295

G12213

G12056

MEMORANDUM

Water Rights and Adjudications Division
Oregon Water Resources Department
3850 Portland Road, NE, Salem, OR 97310
(503) 378-3739 FAX 5033788130

To: Karen Russell, Assistant Director
WaterWatch 921 SW Morrison, Suite 438, Portland, OR 97205

From: Laurie Beth English *LB* Water Rights Program Analyst

Date: November 26, 1993

Subject: Protest

=====
The Department has received the Protest filed on time by
WaterWatch of Oregon to Application File Number G-12685
pursuant to OAR 690-11-175(5).

The Director will refer the Application File with accompanying
Objections and Protest to the Water Resources Commission for
review.

If you have any questions, please call the Water Rights Division.

October 14, 1993

Karen Russell, Assistant Director
WaterWatch of Oregon
921 SW Morrison, Ste. 438
Portland OR 97205

WATER
RESOURCES
DEPARTMENT

Re: Denial Objections Application File # G-12685

Dear Ms. Russell:

The Director of the Water Resources Department has reviewed your objections to the proposed water use reported in the Satisfactory Report of Technical Review announced on Application # G-12685 submitted by Harry G. Spencer. As a result of the Director's assessment, **your objections are hereby denied.**

Your objections state that the Technical Report is defective because the Report fails to contain many of the elements and evaluations required in OAR 690-11-160(1).

The rules of the Water Resources Commission require that the technical review analysis include the elements contained in OAR 690-11-160(1)(a)-(h). There is no requirement that the report of technical review include those elements. In order to maintain clarity and simplicity, a number of technical review factors included in the file checklists are not contained in the reports. A technical review report is a summary of the technical evaluation conducted on a water use application.

The Technical Review conducted on Application # G-12685 did include consideration of the elements specified in OAR 690-11-160(1) as is documented by the information contained in the records of the Department, including the application file.

You also allege the use as proposed is not in the public interest. These objections do not meet the requirements set out in OAR 690-11-170(1). Your objections do not specify particular public interest standards or set forth facts which would support allegations that the proposed water use is prohibited.

These objections include an allegation that the deficiency in measuring and reporting is not in the public interest. It is the policy of the Director to require measuring and reporting conditions on all permits issued. If a permit were to be issued for Application # G-12685, it would include the following measuring, recording and reporting condition:

Before water use may begin under this permit, the permittee shall



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

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.

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 Director may require the permittee to keep and maintain a record of the amount (volume) of water used and may require the permittee to report water use on a periodic schedule as established by the Director. In addition, the Director may require the permittee to report general water use information, the periods of water use and the place and nature of use under the permit. The Director may provide opportunity for the permittee to submit alternative reporting procedures for review and approval.

You have also alleged that the proposed water use will interfere with the surface waters of the basin. The records of the Department show there is sufficient evidence to support the determination that the proposed groundwater use will not have the potential for substantial interference with the nearest surface water source. Any permit issued on Application # G-12685 would contain the following condition:

If substantial interference with a senior water right occurs due to withdrawal from any well listed on this permit, then use of water from the well(s) shall be discontinued or reduced and/or the schedule of withdrawal shall be regulated until or unless the Department approves or implements an alternative administrative action to mitigate the interference. The Department encourages junior and senior appropriators to jointly develop plans to mitigate interferences.

Additional comments or amendments to proposed conditions may be made, at the discretion of the Director, at any time prior to the decision to issue a permit or recommend rejection of the application. No permit will be issued for an application which cannot be conditioned to adequately protect the resource and senior water rights.

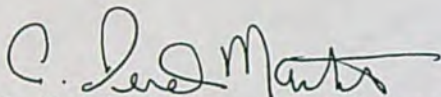
The Director has determined that your objections do not contain facts which establish that the Technical Review was defective nor do they identify elements of the proposed water use that may impair or be detrimental to the public interest. Therefore, the Director has denied your objections.

You may protest this denial of your objections. You have thirty (30) days from the date of this letter to file a protest. Your protest must comply with the standards set out in the Oregon Administrative Rules, Chapter 690, Division Two, Sections 030 through 080 (OAR 690-02-030 through 080).

Send your protest by regular mail or deliver it in person. Your protest must be received by the Water Resources Department in Salem, Oregon, **no later than 5:00pm on or before November 15, 1993**. Your protest must be in proper form and accompanied by a fee of \$25.

Protests received on time and in proper form as prescribed by the rules cited above will be referred to the Water Resources Commission for its review.

Sincerely,



A. Reed Marbut, Administrator
Water Rights and Adjudications Division

cc: Harry G. Spencer
Encl.: WaterWatch 4/28/93 Objections

WaterWatch

O F O R E G O N

RECEIVED

NOV 18 1993

WATER RESOURCES
SALEM, OREGON

Hand Delivered

November 15, 1993

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

Re: **Protest of Application File G-12685, Spencer, Coos Co.,
Cranberry Use & Nursery Operations**

Dear Water Rights Section:

On April 28, 1993, WaterWatch filed objections to Mr. Spencer's proposed use which raised issues relating to deficiencies in the technical report for this application as well as public interest issues. On October 14, 1993, WaterWatch received the Department's denial of WaterWatch's objections. As we stated in our earlier filed protest of application G-12692, the pressure to develop the water resources in this area for economic gains for the cranberry industry **must** be balanced with the state's duty to protect Oregon's precious coastal resources. WaterWatch is not opposed to economic growth, **as long** as that growth is accomplished within the capacity of the water resource, and in a way that protects public uses of water. These public uses of water should be protected not only because we have a duty to act responsibly toward other creatures on this earth, but also because these resources also provide economic benefits for Oregon. For the reasons outlined below, and for other reasons, we file this protest and a \$25 fee pursuant to OAR 690-11-175(5) and 690-02-030 to 080:

A. Facts

Mr. Spencer's application is for use of .356 cfs of water from wells in the South Coast Basin. The proposed wells are located within 1/4 mile surface waters (Conner Creek) next to and within existing wetlands. This application is one of over 20 pending applications for a total of over 15 cfs of water for proposed cranberry bogs in the Bandon area.

The Resource

The proposed use is located in the Croft Lake Basin in the South Coast. Croft Lake is a major tributary of the New River. *New River, Area of Critical Environmental Concern*, June 1989, Bureau of Land Management at 2 (hereinafter BLM). The New River is a unique estuarine and freshwater ecosystem utilized by a wide diversity of fish and wildlife.

According to the BLM's study of the New River this River:

supports a unique mix of wildlife, fisheries, botanical, and cultural resources found in association with few other coastal rivers in the Pacific Northwest. Four species of wildlife that use the area are designated as either threatened or endangered on state or federal lists. One plant species has been identified as a candidate for federal listing, and is designated as threatened on the state list. A number of prehistoric cultural sites have been found along the banks of this drainage, and the river itself is thought to provide critical rearing habitat for juvenile salmonides.

... New River has received special attention from a variety of private, state, and federal conservation interests. The Nature Conservancy has examined New River as a candidate area for their conservation programs. . . the Oregon Natural Resources Council considers New River to be the single most important estuary in Oregon that currently is not under any comprehensive form of management. . . New River also has been identified by the U.S. Fish and Wildlife Service as a candidate site for establishing a National Wildlife Refuge. . . The Oregon Department of Fish and Wildlife has identified the area as critical habitat for the western snowy plover. . . (S)ince 1983, BLM has designated its ownership as an Area of Critical Environmental Concern (ACEC), giving the area special recognition and status for improved management of the unique resources that are present. . .

BLM at 1. Since publication of the BLM's report, the western snowy plover has listed as "threatened" under the Federal Endangered Species Act and nine additional wildlife species that utilize the New River system are either listed under the federal act, or are candidates for listing.¹

The New River supports chinook salmon, coho and other fish populations. Since this BLM report was written, coastal coho populations, which utilize coastal streams such as the New River, have been petitioned for listing under the federal Endangered Species Act. Coastal stocks of fall chinook and coastal cutthroat trout are identified by the state as species of concern. The New River provides important habitat for these species. For example, some of the best pools for fish rearing are found in the New River, below the rivers confluence with Croft Lake. *BLM* at 30. However, downstream fish migration coincides with periods of low flows which can result in high fish mortality. *BLM* at 30. For instance, juveniles trapped in isolated pools in the river:

may be subject to predation, suffocation, and heat stress. Local ranchers have observed great blue herons and kingfishers feeding on these juveniles in the shallower, isolated pools over a period of days in which the channel remained dry.

BLM at 30.

In addition to the resources identified in BLM's plan, Croft Lake and its tributaries provide habitat for a multitude of other fish and wildlife resources, including sensitive populations of searun cutthroat. Croft Lake and its tributaries also provide recreational benefits to residents living and vacationing in the area. Streamflows into and out of the Lake maintain the water quality that is essential for these public uses of the lake.

The BLM has identified the Croft Lake area as part of the management area in the ACEC and has looked at purchasing access to the lake. *BLM* at 1 and Table 1. However, Croft lake has been shrinking over the past several years. *BLM* at 2. Existing use of water for irrigation has had significant effects on the current habitat of the New River and its tributaries. *BLM* at 17.

The BLM has recognized that actions by state agencies, such as the Water Resource Commission have significant effects on management within this ACEC. *BLM* at 7. Commission actions on protecting minimum flows and other water use policies greatly affect the viability of this ecosystem. One of the management objectives identified by the BLM is to maintain minimum flows because:

¹ These include the Brown Pelican, Peregrine Falcon, Leatherback Sea Turtle, Aleutian Canada Goose, American Bald Eagle, Loggerhead Sea Turtle, Pacific Ridley Sea Turtle, Letherback Sea Turtle, and the red legged frog.

New River provides important rearing habitat for juvenile salmonids during summer. Channel drying during summer may coincide with downstream migration of juveniles. This may result in high mortality if juveniles become trapped in isolated pools, where they are subject to predation, temperature stress, and suffocation. Losses of juveniles during migration may preclude full use of more stable rearing habitat present downstream in estuarine portions of the ACEC.

Lack of water in the middle section of New River during summer also precludes full use of marshlands by waterfowl. During most years, water is absent from early July to early September in the areas immediately south of the ACEC. This eliminates potential habitat for rearing broods, in turn reducing the prey available to peregrine falcons and bald eagles.

BLM at 35.

Ground water in the area contributes to surface water flows needed for the above mentioned fish and wildlife species. However, the Commission's South Coast Basin Program admits that little is known about ground water in the basin and expresses doubt as to the ability of ground water supplies to support irrigation. Basin Program Finding 5, 19. Increased ground water withdrawals, under existing water rights have caused declines in both ground and surface water levels. This past summer, water level in domestic wells used by BLM and well levels at Storm Ranch dropped dramatically as a result of pumping of ground water for cranberry bogs.

The Commission's Program also recognizes that ground water is a significant factor in the maintenance of natural lakes in the basin. Program Finding 5. Ground water also contributes to wetlands and other surface waters that provide critical habitat for wildlife and fish in the basin. Finding 42. The Program recognizes the importance of lakes and streams to recreation use in the basin, a major contributor to the economy of the South Coast Basin. Program Finding 39, 40. Ground water and surface water also contribute to wetlands which are critical to the ecological integrity of the area. To date, instream water rights have been set for Croft lake or its feeder streams, Conner and Davis Creek, or the New River. There is a pending instream water right for Floras Creek, a tributary of the New River, with a senior priority date of 11/08/90 (Mr. Spencer's application date is 10/4/91).

Proposed Use

Mr. Spencer proposes to use approximately .178 cfs for cranberry use and .1 cfs for nursery operations from two wells yearround. These wells produce water from an unconfined aquifer within a quarter mile of Conner Creek, a tributary to Croft Lake. Memo to file from Mike Zwart, October 6, 1992 and Application. The Department has concluded that "Conner Creek is likely in hydraulic connection with, and is a discharge area for this

water table." Id. There has been no analysis as to the exact amount of streamflow depletion these wells will have on Conner Creek. In addition, there are no actual measurements of streamflows in Conner Creek. WRD estimated streamflows from a model using one years worth of measurements taken at Ferry Creek. Review of this estimate by the Water Rights Section assumed that existing rights were taken into account. According to the model estimates, flows in Conner Creek are below 2 cfs during the month of May through September.

In addition to withdrawing water from the ground and surface waters, the proposed use will change the drainage patterns in the area, effecting the hydrology of the system. It will also likely involve removal of diverse native plant life found in wetlands. The proposed use will also involve the application of fertilizers and other chemicals to aid in cranberry growth. Runoff from the bogs into surface waters, and/or percolation of the chemicals into ground water will pollute waters in the area, adversely affecting public use of the water resource.

Summary

This proposed use will deplete ground and surface water quantity and water quality needed to support public uses of this sensitive coastal river system. This application is the second of many applications for use in this area. Cumulatively these applications propose to divert large quantities of water, change drainage patterns over a large area and introduce additional chemicals and fertilizers into this system. To date, there is no legal protection for flows needed to support the fish and wildlife that rely on this unique system for survival. There is also no protection for the recreational values of the resource. However, this proposed use, and others waiting to be approved, will adversely effect both individually and cumulatively on this important coastal system.

B. Relief Requested

WaterWatch requests that this application be denied, or in the alternative, sent to contested case. If this application is not denied outright, any proceeding should require that further information be developed about the characteristics of the ground water and surface waters in the area prior to the commencement of a contested case. If a contested case is scheduled, we request that review of this application be consolidated with review of other pending applications for cranberry use in this area.

C. Name and address of Persons having Interest in Proceeding

The following people are known to WaterWatch as having an interest in this proceeding:

Harry G. Spencer
P.O. Box 291
Langlois, OR 97450

Alfred C. Walsh, Jr.
Trustee owner of 220 acres surrounding Croft Lake
280 Collier
P.O. Box 99
Coquille, Oregon 97423

D. Legal Authority and Basis for Claim

This protest is filed pursuant to OAR 690-11-175(5) and 690-01-030 to 080. The Ground Water Act of 1955 requires the Department/Commission to deny permit applications unless the agency can ensure that the "public welfare, safety and health" is protected. ORS 537.620. The policies of the Ground Water Act require, among other things, that use of water be without waste and within the capacity of the resource and that "reasonably stable ground water levels be determined and maintained." ORS 537.525(3), (7). The statute also calls for protection of ground water supplies for a variety of uses (including recreation) and calls for the determination of ground water characteristics. ORS 537.525(5)(6). The Division 11, Division 9, Division 400 and Division 410 rules further refine the public welfare standards set out in the statute.

When considering this application, the agency has a duty to ensure that the proposed use will not harm either the quantity or quality of ground and surface waters. ORS 537.17-5(a) & (c), ORS 537.525(9), (11), ORS 468B.155, and ORS 468B.015. There was inadequate review of the effects on water quantity and no review of the effects on water quality. New uses of water must also be scrutinized for possible impacts on wetlands. ORS 196.669, ORS 196.672 (1). No such scrutiny has occurred.

The federal and state Endangered Species Acts also place a burden on the Commission. Under the state act the Commission is required to consult with the Oregon Department of Fish and Wildlife to ensure that any action taken by the Commission is consistent with ODFW programs to conserve the species, or, if no plan is in place, that the action will not "reduce the likelihood of the survival or recovery" of the state listed species. ORS 496.182(2). Under the federal Act, there is a prohibition against "taking" of endangered species. 16 USCA § 1538(a)(1)(B). Listing under these Acts is a sign, not only of the health of a particular species, but also a warning signal for the health of the human environment.

The proposed use will harm the public interest in the ground and surface water resource because:

- given the proximity of the wells, the presence of an unconfined aquifer and the hydraulic connection, OAR 690-090-030(4)(a). requires an assumption of substantial interference. There are two different staff determinations in the

application file which are apparently based on the same data.² The first determination concluded there was potential for substantial interference. See Memo to File G-12685 from Sarah Meyer, 12/5/91. The subsequent determination back tracked slightly, although not completely, and "tentatively" concluded that the proposed use "may have low potential for substantial interference". Memo to File from Mike Zwart, 10/6/92. Staff acknowledged that this conclusion was "a tentative conclusion, and strong permit conditions were suggested." Memo to Carol Spence from Mike Zwart, 1/16/93. However, the permit conditions do nothing to eliminate interference or protect the public uses of the surface water resource. In addition, Department staff acknowledged that the data used to make this tentative determination failed to contain "pre-test water level data", had "minimal water level recovery data," and required "assumptions to be made regarding test conditions." Memo to File from Mike Zwart, 10/6/92. Thus, the information provided by the applicant is insufficient to rebut this assumption.

In addition, there has been no determination as to the exact extent of hydraulic connection as required in ORS 690-09. Given the fragile ecosystem and the low flows in this area, the proposed use, will have effects on the hydrology of the system, both in terms of ground water withdrawals and in terms of changes in drainage patterns. This use, in connection with other pending applications and existing permitted uses will significantly impair, both on the ground water resource and the surface waters.

- There is insufficient water in the system to support this proposed use together with other pending applications, existing water rights and other public uses of water in this area. OAR 690-11-195(3).
- The water availability analysis was defective. OAR 690-11-160(1)(f). The modeled flows for Conner Creeks were based upon extensions of only one years worth of data from a different Creek. In addition, the analysis was assumed to have taken only existing water rights into account. Existing water rights total approximately 2.16 cfs, essentially all of the modeled streamflows from April to October, and a large percentage of modeled flows during the rest of the year. Given the importance of this stream system, and the already existing overappropriation, these estimates are inadequate to protect the public's interest in the resource.

² After the initial review, the applicant submitted additional data on the issue of confinement. The Department rejected that data and no additional data was submitted on the issue of interference. See Memo to File from Michael Zwart, 10/6/92

- This use will harm designated cultural areas and the BLM's Area of Critical Environmental Concern, water quality, fish, aquatic life, wildlife, and recreational use in the area. OAR 690-11-195(4)(c)(A), (d), (e), (f), (h).
- The Department failed to consult with the Oregon Department of Fish and Wildlife as required by law. In addition, there was no analysis of the effects of the proposed use on harm fish and wildlife listed under the state and federal endangered species acts.
- The proposed conditions fail to protect water resources needed for water quality, fish, aquatic life, wildlife and recreational uses and designated cultural and resource protection areas. OAR 690-11-195(4)(c)(A), (d), (e), (f), (h). For example, requiring this use to be shut off if it interferes with senior rights does nothing to protect these public uses which do not have senior water rights.
- The proposed use is contrary to ground water policies articulated in the statutes cited above and in the Commission's Ground Water Management Policy which requires prevention of ground water/surface water interference and calls for conjunctive management of the resource to protect the public's interest in the resource. OAR 690-410-010. The proposed use is contrary to other Oregon policies including the Statewide Allocation Policy which requires use within the capacity of the resource and requires that instream flow needs be considered when reviewing applications for new uses. OAR 690-410-070. The proposed use is contrary to other statewide policies including those that require protection of native fish, water quality, wetlands, and other public uses of water and call for integrated and coordinated water management. ORS 496.435, OAR 690-410-030, OAR 690-410-070, ORS 536.220(1), (2) and statutes and rules cited above.

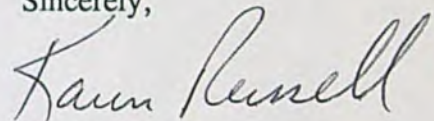
In addition, the following requirements of Division 11 and other procedural requirements were not followed:

- The Department processed this application out of order, contrary to Commission direction.
- The technical report failed to contain many of the elements and evaluations required in OAR 690-11-160(1). The Department's response in the denial letter, these elements were not included in the report in order to "maintain clarity and simplicity" is not supported in the rules. The purpose of the technical report is to give interested parties information that is crucial in order to evaluate whether or not the application is of concern.

- The Department's denial stated that the Director may "at any time prior to the decision to issue" this permit make "additional comments or amendments to" the proposed conditions for this application. This statement essentially makes it impossible for an interested party to determine whether or not their concerns have been addressed - or - if their concerns are addressed, whether or not their concerns will continue to be addressed if and when a permit is issued. This "moving target" approach to public participation does not provide the public with the ability to participate meaningfully in water allocation decisions. There is nothing in the rules that allow the Department to make changes to conditions without notice to interested parties. While we agree that as new information comes forward, the agency has a duty to ensure that conditions are modified to protect the resource, the Department should give parties in the proceeding notice and an opportunity to comment on any changes.

For the reasons outlined above, we file this protest.

Sincerely,



Karen Russell
Assistant Director

c. Burchfield, ODFW

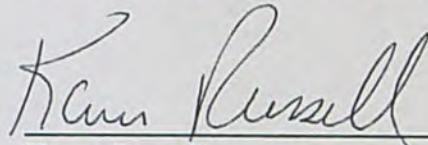
Certificate of Service

I certify that on this 15th day of November, 1993, a copy of WaterWatch's Protest of Application G-12685 was served on each of the following by first class mail, postage paid, in the United States Mail from Portland, Oregon, enclosed in a sealed envelope and addressed as follows:

Harry G. Spencer
P.O. Box 291
Langlois, OR 97450

Alfred C. Walsh, Jr.
280 Collier
P.O. Box 99
Coquille, Oregon 97423

Signed this 15 day of November, 1993


Karen Russell

PROTESTS

G12685 - HARRY SPENSER

R71841 - RUSSELL FRASER

71842 - RUSSELL FRASER

Coos County - Croft Lake Basin

- More than 20 applications for 15 cfs for cranberry use in the Bandon area
- Croft Lake is now used principally for recreation and wildlife, there are apparently a number of homes/cabins around the lake
- Croft Lake is a tributary to the New River
- New River
 - Candidate for establishing Nat. Wildlife Refuge
 - "Critical habitat for the Western Snowy Plover" ODFW
 - BLM lands "Area of Critical environmental concern"
 - Supports chinook, coho and other fish populations
 - Provides rearing habitat for salmonids during summer
- Conner Creek
 - One of two main tributaries to Croft Lake
 - "Has resident and anadromous fish populations" WW
 - No actual streamflow measurements
 - Streamflow data from one year used to model streamflow

G 12685 - Harry Spenser

Not hydraulically connected
Year around use
.356 cfs
Cranberry operations - 12 acres
Nursery operations - 4.0 acres
Objections by WW

- TR is defective
- Use not in Public Interest
- Measuring and reporting
- Surface water interference
- Use violates statewide policies

R 71841 - Russell Fraser

Store water
Oct. 1 thru April 30
9.2 acre-feet
Water from Conner Creek

71842 - Russell Fraser

Use of stored water
9.2 acre-feet
Supplemental cranberry use
Year around use

Objections to R 71841 and 71842 by WW
In Croft Lake Basin
TR is defective
Use not in Public Interest
Measuring and reporting
No water available

Protests to G 12685, R 71841 and 71842
restate issues raise in objections

5-12685

MEMORANDUM

TO: Reed Marbut
FROM: Danielle Clair
RE: Correspondence Contact # 179

Today's date: 6-8 Draft due: 6-17

Request for review of correspondence to addressed to:

Governor Roberts

Martha Pagel

Anne Squier

Please prepare a draft response to the attached correspondence to go out under

- The Governor's signature.
- Martha's signature.
- Anne's signature.

6/13

Steve B

This is a Craft Lake
area AW for ben benney
lets' discuss the plan
for these APPs.

Reed

Particulars for signature blocks--

Martha O. Pagel
Director

OR Barbara Roberts
Governor

MOP: (your initials) (letter id #)

BR: (your initials) (letter id #)

OR

Anne W. Squier
Senior Policy Advisor
Natural Resources

AWS: (your initials) (letter ID#)"

And as per usual, letters addressed to the Governor for Anne's or Martha's response should begin, "On behalf of the Governor..."

5-12685

MEMORANDUM

TO: Reed Marbut
FROM: Danielle Clair
RE: Correspondence Contact # 179

Today's date: 6-8 Draft due: 6-17

Request for review of correspondence to addressed to:

Governor Roberts Martha Pagel Anne Squier

Please prepare a draft response to the attached correspondence to go out under

- The Governor's signature.
- Martha's signature.
- Anne's signature.

Particulars for signature blocks--

Martha O. Pagel Director	OR	Barbara Roberts Governor
MOP: (your initials) (letter id #)		BR: (your initials) (letter id #)

OR

Anne W. Squier
Senior Policy Advisor
Natural Resources

AWS: (your initials) (letter ID#)"

And as per usual, letters addressed to the Governor for Anne's or Martha's response should begin, "On behalf of the Governor..."

RECEIVED

cc: appl file

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

JUN - 7 1994
WATER RESOURCES DEPT.
SALEM, OREGON

Harry and Doug Spencer
P.O. Box 291
Langlois, Oregon 97450
June 4, 1994

Dear Martha: Re: Application G-12685, Draft Permit G-11404

Your time is valuable, so I will be concise. I feel that the delay and uncertainty in bringing our contested application for water rights before the water rights Commission is not reasonable or fair.

I feel that holding up our permit due to Water Watch objections is unfair also, though I know you must go through due process, which leads back to the above procedural concern.

Why is it not reasonable or fair?

1. We submitted 2 hydrologic studies and a geologic study, all done by a geologist recommended by your department, that conclude there is no substantial hydrologic connection between our wells and Conner Creek, which flows through our property. We do not affect the stream nor the level of Croft Lake below us. At least seventy-five percent of our irrigation water returns to the aquifer. Water losses are miniscule.

Water Watch has made no studies in our area, and has no evidence to dispute these conclusions.

2. Your department, after 3 years of study and processing, has approved our application through satisfactory technical review.

Water Watch submits generalized statements and concerns without documentation. Your department denied their objection.

3. No one else objected to our permit; the Department of Fish and Wildlife has not filed on our stream (Conner or Davis Creek) and do not consider our stream suitable or important for migratory fish.

Water Watch, and now I understand BLM after the period for objections is over, are throwing in concerns about migratory fish.

4. The priority date for our application is early amongst the 21 applications pending in the Croft Lake drainage. We have no quarrel with the applications of Robinson and Fraser that precede us, nor Warnock that has the same priority date. Our application is for ground water with our studies proving adequate supply with no affect on surface water. Some of the other applications are for surface water. A 3 year history of actual water use by all the above parties in the drainage is the best evidence that water supply is adequate. During these last 3 years, Croft Lake water level has not been affected; there have been no complaints about existing water levels from the Croft Lake Club, who zealously monitor the lake (which they have artificially dammed and raised the natural level of).


My understanding is that your departments policy is to consider applications in order of priority, and to issue permits up to the calculated allowable supply in the drainage. You would have issued us a permit by this time, were it not for the objection solely of Water Watch a year ago. Mr. Gabriel of your department told us in March that we, along with other early priority applicants in the Croft drainage, would be considered at the Commission Meeting in Klamath Falls June 3, 1994. Three weeks later when I called, the plan had been changed. There is no date set. The feeling is that probably all the applications in the drainage will be processed to the same stage, and considered as a group by the commission.

What happened to processing by order of priority date? Where is the justice in throwing all later requests in with ours for consideration by

the Commission? Why can't we get on with the process? I feel that time delay only works against us, and it's a very uncomfortable feeling. We, a small family operation, have spent \$175,000 on well drilling, testing, showing feasibility of water supply without adverse environmental impact, and finally after your draft permit virtually promised us a permit, building the irrigation facilities and cranberry bogs. We will be harvesting cranberries on 2 acres this Fall, 8 acres the following Fall.

Could you please re-schedule those of us who have early application priority, and are complete through the Department's denial of Water Watch objection, for the next Commission Meeting?

Sincerely yours,

A handwritten signature in cursive script, appearing to read "Harry Spencer Doug Spencer", with a long horizontal flourish extending to the right.

Harry Spencer and Doug Spencer

Keed
cc: Ed

REVISED

MEMORANDUM

TO: Commission Report Review Team
FROM: Danielle Clair
DATE: April 27, 1994

Attached is a REVISED Issues Session cover page, an outline for the Placer Mining item (page 16) and two new title sheets with corresponding outlines. The Issues Session is *still* scheduled this Thursday, April 28, in Room B from 1 to 5pm. Authors will distribute (or hand out at the Issues Session itself) outlines that didn't make it into this supplement.

<u>Author/Presenter</u>	<u>Title</u>	<u>PAGE</u>
Lissner/Brown	Status Report on GW Conditions and Water Use Application Processing in the Bonanza Area, Klamath County	1
Marbut/Gabriel	Consideration of App# 72998-Port of Portland for use of surface water from Willamette & Columbia Rivers	3
Parrow/Wahab/ Fujii	Proposed Process for Basin Program Revision, Planning and Coordination	7
McCord	Request for Approval of the Stream Restoration Action Program for Upper South Fork of the John Day River	9
Rice	Lower Columbia Rulemaking and Response to a Petition for Temporary Emergency Rulemaking in the North, Mid and South Coast, Rogue and Umpqua Basins and Clackamas Subbasin	11
Patrino	Legislative Concepts 1994 (no outline expected)	14
Applegate	1993 Regulatory and Enforcement Activities	15
Applegate	Request for Repeal of Rule Definition of Placer Mining	16
Parrow	Request for Approval & Request for Authorization of Water Management and Conservation Planning Rules	17
Marbut	Request for Adoption of Proposed Amendments to Div 11 to Implement HB 2970 (Road Watering)	18
Marbut	Request for Authorization to Conduct Rulemaking to Amend Div 11 to Implement HB 2344 (de minimis uses)	19
Mize	Mount Hood Meadows exceptions	20
Marbut/Gabriel	Consideration of App. # G-12685 (Spenser) and R-71841 & 71842 (Fraser)	22

Attention: Steve Applegate
Oregon Water Resources Department
Salem, Or

APR - 6 1992
WATER RIGHTS DEPARTMENT
SALMON DIVISION

cc: ^{OK} → Don Miller
(-orig back to me)

Subject: re: Application G-12685
Permit G-11404 unsigned

Dear Mr. Applegate,

We talked by phone this morning about my permit, and what could be done to resolve it's relegation to an uncertain status. As suggested, I am having Russell Rolls re-contact your hydrologic section to try to resolve their differences about hydrologic connection of my wells. Mr. Rolls pumps tests showed that the curve of depression between main wells and test wells spaced toward the creek, did not intercept the creek, and would not interfere if one pumped at 100 gpm from the first well and 84 gpm from the second. We applied for considerably less gpm from these wells, i.e., 70 gpm for the first and 50 gpm for the second, feeling we'd be ultra safe. I would like to review the series of events that led us to our untenuous present circumstances.

About a year ago we consulted the local watermaster about getting additional water rights in our Conner Creek piece. He advised us that additional surface water could be a problem with present and proposed uses on the creek. However, if we drilled wells well back from the creek and if we were able to substantiate that the well or wells had negligible hydrologic connection with the creek, then we would probably be able to get water rights that would be independent of limited stream flow cut-offs.

Such evidence would require a recognized geologist or hydrologist such as Russell Rolls, or others on the Water Resource Department's list. We proceeded along these lines. We hired Mr. Rolls last Fall. His reports of Sept. 10 and Oct. 5, 1991 were submitted with our application. Based on this affirmative support of the reports from an authority recognized by the Water Resources Dept., we proceeded with investments in cranberry bog development; i.e., clearing, sanding, water systems, holding pond, purchase of cranberry vines, and payments to get into the cranberry association totaling over \$50,000. On December 28, 1991 we were pleased to get a draft copy of our permit G-11404 granting the rights for which we had applied. I signed and returned the draft permit Jan. 2, 1992 without change. The letter from Water Resources that accompanied this draft permit did not discuss rejection. Excerpts from it are as follows: "We are now ready to recommend the issuance of a permit approving your request to use water."....."When we receive your signed draft, we will issue your permit as quickly as possible."

I discussed the draft permit with my Water Rights Examiner, Jim Gosson, who had prepared my application. (By the way, he had been recommended to me by our watermaster as being a very competent examiner, and conversation with other people in Salem indicated he is competent and clear in his presentations.) Jim assured me that once I received and signed the draft permit that issuance was assured, although it might take a couple of months. We then went ahead with more development and commitments on purchase and installation of equipment, and planting the vines in the first 2 acres of bogs. Our investment being on these rights is now up over \$60,000.

With our last payment of \$15,000 due on one purchase connected to these rights April 1, I called water rights in Salem last week just to be sure they would be issued. On 3/23/92 I was told by Mr. Dave Marko they were issued Jan. 13. I said I had not received a copy, so he promised to send me one. Later that day he called back to say they were not yet issued, but were on the director's desk for signing, and were pending a review by Mr. Brown. The next day I tried to reach Mr. Brown but could not. I was informed he was out until Friday. I waited until Monday, 3/30/92 to call again, and was informed I could not talk to him until Tuesday morning. I called Tuesday morning and was told he was unavailable until after 3:00 pm, but perhaps Mr. Applegate, his superior, would talk to me at 10:00.

So, Mr. Applegate, you returned my call at 10:15 and you know the rest. To paraphrase, "Timing of any action on my permit is indefinite. Any imminent action would require a re-statement from the hydrologic section. Without that, my permit, if issued, would probably not be as stated in the draft permit, but would probably contain further restrictions on water use in the summer months."

Mr. Applegate, I feel that we have been misled by the department. We have made logical investments in excess of \$60,000 at present (it takes me several years to make \$60,000) based on recommendations and assurances both verbal and written from the Department and from Water Rights Examiners trained and authorized by the Department. At this point I request, implore, and beseech you to consider the merits of my permit; if Mr. Rolls studies mean anything, (and they should, since your agency recommended him) the hydrologic connection of my wells to Conner Creek is very slight. Mr. Rolls cites studies demonstrating a 75% or greater return, of the water we irrigate with, to the drainage. We plan to recycle water from the bogs back to the in-system storage ponds, thus minimizing water needs.

Beyond the merits of the application, the economic hardship of a turn-about by your Department at this point should be considered. Would you please favor me with a reply stating what the department will do regarding my permit within the next 10 working days?

Sincerely,

Harry Spencer

Harry Spencer



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JAN - 3 1992

WATER RESOURCES DEPT.
SALEM, OREGON

1/1/92

Oregon Water Resources Department

3850 Portland Rd. NE

Salem, Or. 97310

Attention: File G-12685

Gentlemen:

I thank you for your letter of Dec. 27, 1991 enclosing a draft copy of a permit to use the public waters for which I applied.

It appears to grant me adequate water to develop the 12 acres of cranberry operations and 4 acres of nursery for which I applied. This will complete development of my existing land, and hopefully thereby provide an adequate economic base for both myself and wife, as well as our son Doug and Family in business with me.

For this I thank you from the bottom of my heart.

My signed copy of the "draft" permit is enclosed as requested. We will anxiously await issuance of our permit, and proceed on our development.

Sincerely yours,
Harry Spencer

October 11, 1991

HARRY G SPENCER
PO BOX 291
LANGLOIS, OR 97450

REFERENCE: File(s) G-12685

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

SWY UNSELED

Spencer

Presented to
9/9/94

TO: Water Rights Section

FROM: Groundwater/Hydrology Section

SUBJECT: Application G-12685

1. ✓ PER THE S. Coast Basin rules, one or more of the proposed POA's is/is not within 4 feet/mile of a surface water source (Conner Creek) and taps a groundwater source hydraulically connected to the surface water.

1 630 } Conner Creek
2 500 }

2. BASED UPON OAR 690-09 currently in effect, I have determined that the proposed groundwater use
a. X will, or } have the potential for substantial interference with the nearest surface water
b. will not } source, namely Conner or Creek; or
c. will, if properly conditioned, adequately protect the surface water from interference:
i. The permit should contain condition #(s) ;
ii. The permit should contain special condition(s) as indicated in "Remarks" below;
iii. The permit should be conditioned as indicated in item 4 below; or
d. will, with well reconstruction, adequately protect the surface water from substantial interference.

Treat as surface water

3. BASED UPON available data, I have determined that groundwater for the proposed use
a. X will, or } likely be available in the amounts requested without injury to prior rights and/or
b. will not } within the capacity of the resource; or
c. can, if properly conditioned, avoid injury to existing rights or to the groundwater resource;
i. The permit should contain condition #(s) ;
ii. The permit should contain special condition(s) as indicated in "Remarks" below;
iii. The permit should be conditioned as indicated in item 4 below.

4. a. THE PERMIT should allow groundwater production from no deeper than 100 ft. below land surface;
b. The permit should allow groundwater production from no shallower than 100 ft. below land surface;
c. The permit should allow groundwater production only from the groundwater reservoir between approximately ft. and ft. below land surface;
d. Well reconstruction is necessary to accomplish one or more of the above conditions.
e. One or more POA's commingle 2 or more sources of water. The applicant must select one source of water per POA and specify the proportion of water to be produced from each source.

REMARKS:

0303293912

WELL CONSTRUCTION (If more than one well doesn't meet standards, attach an additional sheet.)

5. THE WELL which is the point of appropriation for this application does not meet current well construction standards based upon:

- a. review of the well log;
- b. field inspection by _____;
- c. report of CWRE _____;
- d. other: (specify) _____

6. THE WELL construction deficiency:

- a. constitutes a health threat under Division 200 rules;
- b. commingles water from more than one groundwater reservoir;
- c. permits the loss of artesian head;
- d. permits the de-watering of one or more groundwater reservoirs;
- e. other: (specify) _____

7. THE WELL construction deficiency is described as follows:

8. THE WELL was, or was constructed according to the standards in effect at the time of

- a. was not original construction or most recent modification.
- b. I don't know if it met standards at the time of construction.

RECOMMENDATION:

- A. I recommend including the following condition in the permit:
"No water may be appropriated under terms of this permit until the well(s) has been repaired to conform to current well construction standards and proof of such repair is filed with the Enforcement Section of the Water Resources Department."
- B. I recommend withholding issuance of the permit until evidence of well reconstruction is filed with the Enforcement Section of the Water Resources Department.
- C. REFER this review to Enforcement Section for concurrence.

THIS SECTION TO BE COMPLETED BY ENFORCEMENT PERSONNEL

I concur in G/H's recommendation A or B above relating to conditioning or withholding the permit.

_____, 1991.
(Signature)

I do not concur in G/H's recommendation A or B above relating to conditioning or withholding the permit for the following reasons:

_____, 1991.

(Signature)



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OCT - 3 1991

WATER RESOURCES DEPT.
SALEM, OREGON

9/30/91

Water Resources Dept.
3850 Portland Road N.E.
Salem, Or. 97310

**Application No. G-12685
Permit No.**

Gentlemen:

Enclosed is my application for water rights
in Secs 11 and 13 of Twp. 30S R. 15W, W.M. as
drawn up by CWRE Jim Gosson. I
enclose a copy of his letter to me, and
on pg. 2 you will see a checklist for
enclosures which accompany the report.
2 footnotes on Jim's letter explain where additional
reports will be forthcoming.

Please call me if there are any questions.

Sincerely yours,
Harry Spencer

RECEIVED

580 South State Street
Sutherlin, Oregon 97479

JAMES E. GOSSON Consulting Engineer

CIVIL ENGINEER
LAND SURVEYOR
WATER RIGHTS EXAMINER

OCT - 2 1991

WATER RESOURCES DEPT.
SALEM, OREGON

(503) 459-2243

September 20, 1991

Application No 6-12685
Permit No.

Harry G. Spencer
P. O. Box 291
Langlois, Oregon 97450

Dear Harry,

Enclosed are the documents pertaining to your application for a Permit to Appropriate Groundwater. The extra map is for your records.

The application is for water from two wells for 12.0 acres of cranberry use and 4.0 acres of nursery operations. Also enclosed is a copy of the current Administrative Rules defining each use.

I have prepared the application such that well #2 can also be used to provide water for the 10.0 acres of cranberry use and 0.3 acres of nursery operations in the SW1/4 SW1/4 of Section 11, in the event that is desirable. If you want to prove up on it as such you must use it as such.

The distribution pipeline to the 2.0 acres of cranberries in Section 13 must pass through either the SE1/4 SW1/4 of Section 12, or the ~~NW1/4 NW1/4 of Section 13~~. ^{Done} I have listed both property owners. You can modify it to reflect the actual location of the pipeline. As we discussed, affidavits from all of the affected property owners will serve to simplify the processing in Salem. I would suggest that you contact the district engineer's office of the Oregon Highway Division in Coos Bay and schedule a meeting at the crossing site, as you will need a permit from them, unless the existing pipeline crossing is under permit. If that is the case, include a copy of it in the package.

The "Land Use Information Form" will have to be modified, depending on the actual location of the pipeline, as I mentioned. It and the "Description of Water Use Form" must be processed by the County Planning Department prior to submitting the application to Salem.

I have identified the wells on the application by their respective "start card" numbers. You will have to enter the start card number for well #2, as I don't have it.

Harry Spencer
September 20, 1991
Page 2

Don't forget to include copies of the legal descriptions of the parcels where appropriation and/or use is shown.

The completed package should contain:

✓ = Enclosed with application:

- ✓ - the completed application, signed and dated,
- ✓ - the supplemental sheet with corrections,
- ✓ - the map,
- ✓ - the water well reports,
- ✓ - the Land Use Information Form, with corrections, (Coos County)
- ✓ - the Record of Land Use Form, water use description (Coos County)
- ✓ - the legal descriptions,
- ✓ - the affidavits, (private parties right of way agreements)
- * - the groundwater geologist's report, *
- * - the copy of State Highway Pipeline Crossing Report, *
- ✓ - a check in the amount of \$400.

* If a permit doesn't exist, you can either make application now or later. We can discuss this in more detail if it's necessary.

The breakdown of State fees, as I see it, is as follows:

Examination fee	\$200	
Recording fee (cranberry use)		100
(nursery operations)		<u>100</u>
Total		\$400

Give me a call if you have any questions.

Very truly yours,


James F. Gosson, CWRE

Enclosures

JFG/p

* The geologists hydrologic report for well # 1 is included.

The " " " " for well # 2 will be forthcoming shortly. All main well and Test well measurements have been taken for well # 2 and forwarded for analysis by Russell Ralls, Geologist.

* * The Highway Engineer in Coos Bay has been contacted, and after inspection of our highway crossing a permit should follow.

December 12, 1991

INTER-OFFICE MEMO

TO: Tom Shook

FROM: E. George Robison

Subject: Flows for Davis Cr. basin

Here are the flows for the Davis Cr. basin. I gave you flows derived from both the model and from basin ratios with nearby Ferry Cr. near Bandon. I recommend that you use the model flows because the Ferry Cr. data was based on data taken during the 1976-77 season and then extended out. While the extension gets rid of the drought effect in general, I think the distribution of flows generated from it was flattened somewhat by the drought.

Flow evaluation for Davis and Conner Cr. South Coast Basin
Streamflows in 50% Exceedence Mean monthly flows CFS

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Davis Mod.	23.9	20.3	17.2	11.2	5.6	5.3	3.3	2.4	2.5	3.9	10.3	28.2
Davis Rat.	15.2	14.1	12.8	10.2	6.9	4.0	2.5	2.0	2.3	3.8	10.4	17.1
Conn. Mod.	8.2	6.8	5.8	3.9	1.9	1.6	1.0	0.7	0.7	1.3	3.6	10.0
Conn. Rat.	5.4	5.0	4.6	3.6	2.4	1.4	0.9	0.7	0.8	1.4	3.7	6.1

cc Fred Lissner
Barry Norris
Steve Applegate

MEMO

December 10, 1991

TO: E. GEORGE ROBISON
FROM: TOM SHOOK
SUBJECT: FLOWS FOR CONNER CREEK

YOU RECENTLY PUT TOGETHER A REPORT FOR US FOR FOURMILE CREEK.

APPLICANT HARRY SPENCER IS ANXIOUS FOR US TO WORK ON HIS FILE SO THAT HE CAN USE WATER NEXT SEASON. HIS PROJECT IS A FEW MILES SOUTH OF THE FOURMILE CREEK BASIN. I HAVE ATTACHED A MAP PRINT OF THE AREA IN QUESTION.

WILL YOU GIVE US A FLOW REPORT FOR DAVIS CREEK AND THE TRIBUTARY CONNER CREEK? JOHN DROLET, WATERMASTER AT COQUILLE, FAXED US A MISCELLANEOUS MEASUREMENTS REPORT. IT IS ATTACHED ALSO.

IF YOU CAN COME UP WITH AN ANSWER FOR US WITHIN A WEEK, GREAT. IF YOU ARE INUNDATED WITH REQUESTS AS A RESULT OF YOUR E MAIL MSG, WE WILL USE FOURMILE CREEK INFO.

THANKS

STATE OF OREGON
WATER RESOURCES DEPARTMENT

INTEROFFICE MEMO

DATE : 12-5-91

TO: File G12685

FROM: Sarah Meyer *sm*

SUBJECT: Hydraulic Connection and Potential for Substantial Interference

As a result of Harry Spencer's inquiry on the status of his water right application, a repeat investigation was done on the hydraulic connection and potential for substantial interference from his two proposed pumping wells. Mr. Spencer had hired a geologist, R.J. Ralls, to investigate the situation and Mr. Ralls concluded that there was no hydraulic connection or potential for substantial interference. However, the initial evaluation from the groundwater section showed hydraulic connection and the potential for substantial interference in accordance with the WRD Administrative Rules 690-09-040. Because the two wells are unconfined and within one-fourth mile from Conner Creek, they are defined in the rules as being both hydraulically connected and having the potential for substantial interference. The existence of a hydraulic gradient between the creek and the wells is irrelevant in this kind of analysis because the wells are still intercepting groundwater that would have eventually added to the creek flow. There is flexibility in the rules that provide the applicant leverage to refute this method of evaluation. Since the applicant provided additional hydrogeological information from a licensed geologist, the Department felt a second, more in depth, review was justified.

The second review involved an analysis of Mr. Ralls hydrogeological reports of the two wells. According to Mr. Ralls, the two wells were tapping into an unconfined aquifer but the amount of withdrawal would not be seen in Conner Creek. Using parameters calculated from the results of two four day pump tests, Mr. Ralls based this conclusion on the amount of drawdown seen one hundred feet from each pumping well. At one hundred feet, well #1, pumping at 144 gpm for 100 days, would cause 5.58 feet of drawdown and well #2, pumping at 84 gpm for half a day, would cause 3.9 feet of drawdown. By extending this drawdown the distance to the creek, he concluded no effects would be seen.

As a double check, the data obtained from the pump tests was redrawn into graphs and hydraulic parameters were recalculated. The range of recalculated transmissivities included those calculated by Mr. Ralls as did the values of storativity for well # 2. However, Mr. Ralls storativity value for well #1 fell outside of our recalculated range of storativities.

	TRANSMISSIVITY	STORATIVITY
R.J. Ralls		
	well #1 16,982 gpd/ft	.174
	well #2 6,187-6,329 gpd/ft	.0062-.0083
WRD		
	well #1 8,280-22,770 gpd/ft	.107-.023
	well #2 2,708-34,065 gpd/ft	.0066

Plugging these values into Jenkins' Model gives the following results for the time at 25% stream depletion:

R.J. Ralls		
	well #1	7.24 days
	well #2	1.18-1.61 days
WRD		
	well #1	0.71-9.13 days
	well #2	0.23-2.93 days

All these values are well within the guidelines outlined in the rules which refer to the 25% depletion within 30 days of pumping (with respect to substantial interference). Ralls' hydrogeological report was very informative and it presented a lot of valid data, yet, there was nothing in the report to suggest that no hydraulic connection was occurring and that there was not a potential for substantial interference. Due to the proximity of the wells to the creek and the aquifer characteristics gained from the Ralls geological report, I think it is accurate to assume both hydraulic connection to Conner Creek and that the potential for substantial interference exists.

SUPERSEDED

TO: Water Rights Section

11/12, 1991

FROM: Groundwater/Hydrology Section

Meyer

Reviewer's Name

SUBJECT: Application G- 12685

1. ✓ **PER THE S. Coast Basin rules, one or more of the proposed POA's is/is not within 1/2 feet/mile of a surface water source (Conner Creek) and taps a groundwater source hydraulically connected to the surface water.**

H 1 630 } Conner Creek
H 2 500 }

2. **BASED UPON OAR 690-09 currently in effect, I have determined that the proposed groundwater use**
a. will, or } have the potential for substantial interference with the nearest surface water
b. will not } source, namely Conner Creek; or
c. will, if properly conditioned, adequately protect the surface water from interference:
i. The permit should contain condition #(s) _____;
ii. The permit should contain special condition(s) as indicated in "Remarks" below;
iii. The permit should be conditioned as indicated in item 4 below; or
d. will, with well reconstruction, adequately protect the surface water from substantial interference.

Treat as surface water

3. **BASED UPON available data, I have determined that groundwater for the proposed use**
a. will, or } likely be available in the amounts requested without injury to prior rights and/or
b. will not } within the capacity of the resource; or
c. can, if properly conditioned, avoid injury to existing rights or to the groundwater resource;
i. The permit should contain condition #(s) _____;
ii. The permit should contain special condition(s) as indicated in "Remarks" below;
iii. The permit should be conditioned as indicated in item 4 below.

4. a. **THE PERMIT** should allow groundwater production from no deeper than _____ ft. below land surface;
b. The permit should allow groundwater production from no shallower than _____ ft. below land surface;
c. The permit should allow groundwater production only from the _____ groundwater reservoir between approximately _____ ft. and _____ ft. below land surface;
d. Well reconstruction is necessary to accomplish one or more of the above conditions.
e. One or more POA's commingle 2 or more sources of water. The applicant must select one source of water per POA and specify the proportion of water to be produced from each source.

REMARKS:

0213293417

WELL CONSTRUCTION (If more than one well doesn't meet standards, attach an additional sheet.)

5. **THE WELL** which is the point of appropriation for this application does not meet current well construction standards based upon:
- a. review of the well log;
 - b. field inspection by _____;
 - c. report of CWRE _____;
 - d. other: (specify) _____

6. **THE WELL** construction deficiency:
- a. constitutes a health threat under Division 200 rules;
 - b. commingles water from more than one groundwater reservoir;
 - c. permits the loss of artesian head;
 - d. permits the de-watering of one or more groundwater reservoirs;
 - e. other: (specify) _____

7. **THE WELL** construction deficiency is described as follows: _____

8. **THE WELL**
- a. was, or _____ constructed according to the standards in effect at the time of
 - b. was not _____ original construction or most recent modification.
 - c. I don't know if it met standards at the time of construction.

RECOMMENDATION:

- A. I recommend including the following condition in the permit:
 "No water may be appropriated under terms of this permit until the well(s) has been repaired to conform to current well construction standards and proof of such repair is filed with the Enforcement Section of the Water Resources Department."
- B. I recommend withholding issuance of the permit until evidence of well reconstruction is filed with the Enforcement Section of the Water Resources Department.
- C. **REFER** this review to Enforcement Section for concurrence.

THIS SECTION TO BE COMPLETED BY ENFORCEMENT PERSONNEL

I concur in G/H's recommendation A or B above relating to conditioning or withholding the permit.
 _____, 1991.
 (Signature)

I do not concur in G/H's recommendation A or B above relating to conditioning or withholding the permit for the following reasons: _____

 _____, 1991.

(Signature)

Tom Stook

October 29, 1991

INTER-OFFICE MEMO

TO: Steve Brown

FROM: E. George Robison

Subject: Flows for Fourmile Cr.

Steve here are the flows for Fourmile Cr. I must caution you that I estimated the precipitation and the soils index as best I could from maps. There were no gages and no significant miscellaneous measurements so I used the water availability model to do the calculation.

Streamflows for Fourmile Cr. and tributary.

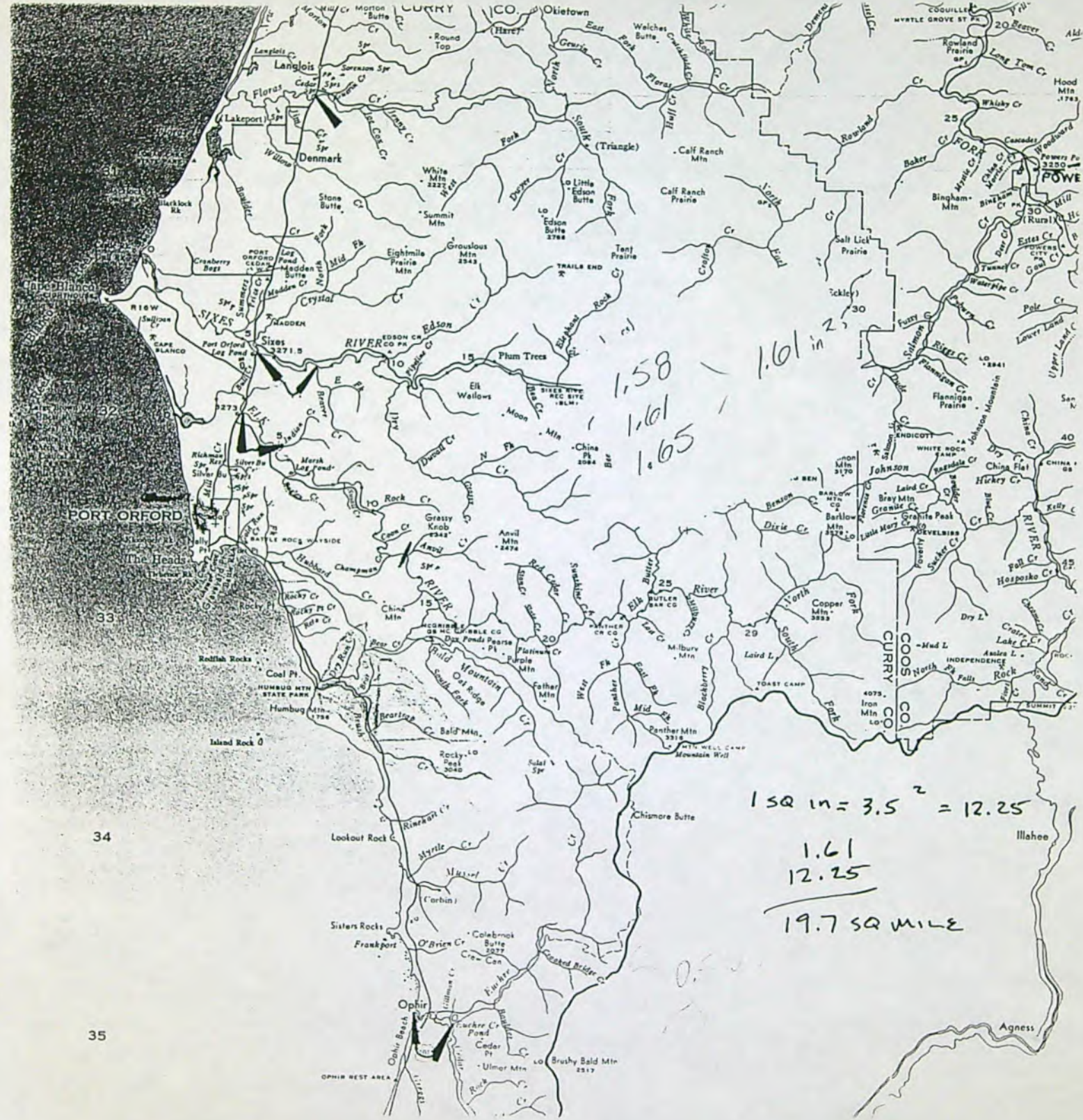
All flows are 50% exceedence mean monthly flows based on the water avail. model

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Fourmile Cr.	137	120	100	64	33	15	6.3	3.8	4.5	11	58	156
Fourmile Cr. trib.	2.6	2.1	1.8	1.2	0.5	0.2	0.1	0.05	0.1	0.2	1.3	3.5

Basin Characteristics for Fourmile trib.	Basin Characteristics for Fourmile Cr.
17 = Basin No.	17 = Basin No.
0.44 = Drainage Area	19.7 = Drainage Area
70 = Precipitation	68 = Precipitation
3 = SI Index	3 = SI Index

All basin characteristics were estimated from maps not determined.

cc Fred Lissner
Steve Applegate



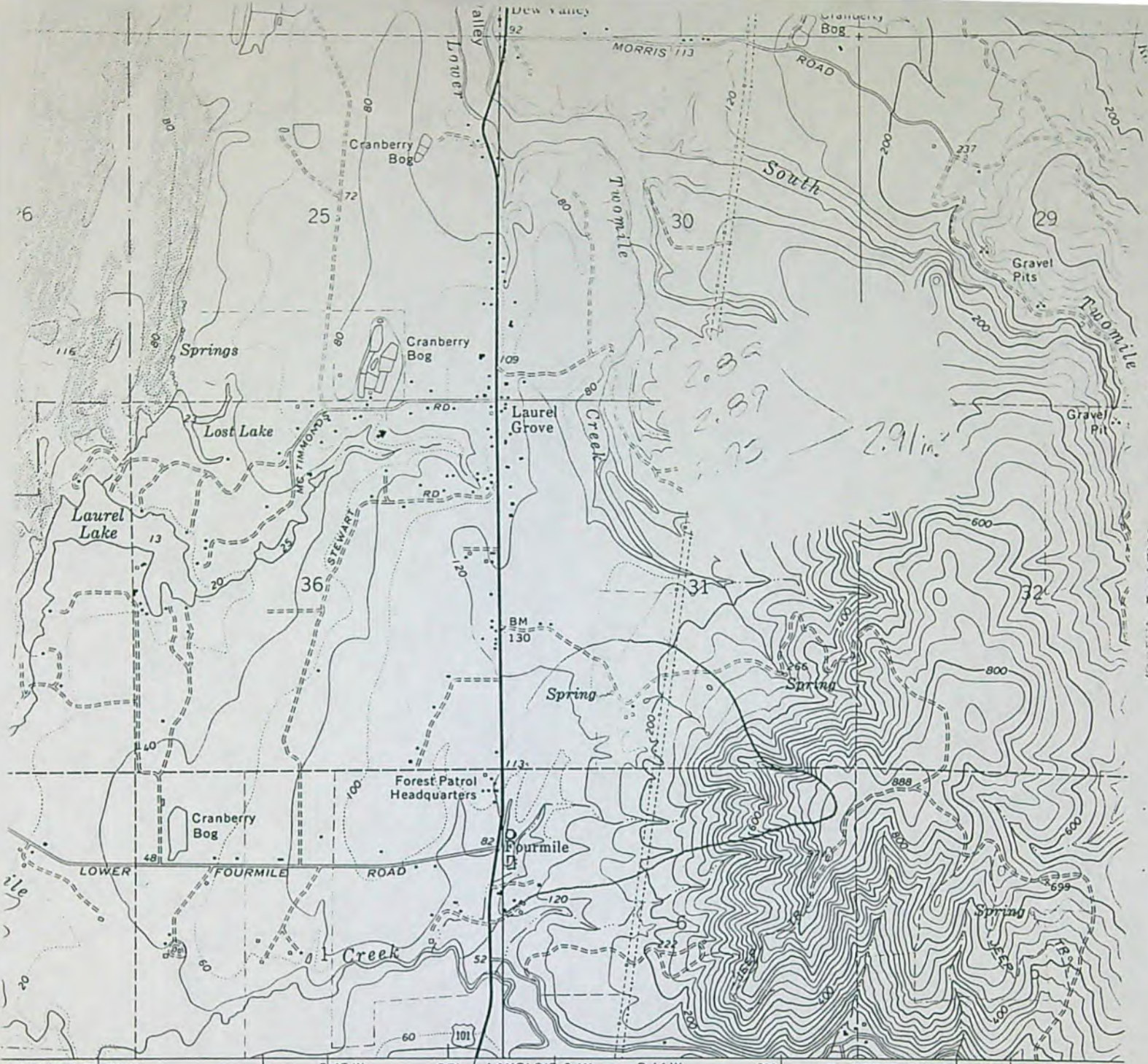
1.58
1.61
1.65

1 sq in = 3.5² = 12.25

1.61
12.25
19.7 SQ MILE

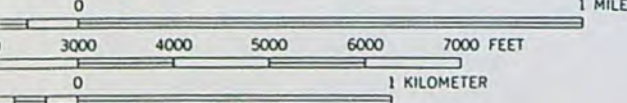
34

35



NGLOIS 1:62 5001 1169 IV R. 15 W. 25' LANGLOIS 6 MI. R. 14 W. 386 INTERIOR—GEOLOGICAL SURVEY, WASHINGTON, D.C. 387000m E.

SCALE 1:24000



IR INTERVAL 40 FEET
 REPRESENT 20-FOOT CONTOURS
 1 IS MEAN SEA LEVEL
 S IN FEET—DATUM IS MEAN LOWER LOW WATER
 ENTS THE APPROXIMATE LINE OF MEAN HIGH WATER
 AGE OF TIDE IS APPROXIMATELY 5 FEET



ROAD CLASSIFICATION
 Primary highway, hard surface _____
 Secondary highway, hard surface _____
 Light-duty road, h improved surface _____
 Unimproved road _____
 Interstate Route (circle with 'I') U. S. Route (circle with 'S')

DENVER, COLORADO 80225, OR WASHINGTON, D. C. 20242
 HIC MAPS AND SYMBOLS IS AVAILABLE ON REQUEST

1 sq m = 2000'²
 3 m² = 0.44 sq miles

BANDON
 SW/4 BANDON 15
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 197
 AMS 1170 III SW

MEMORANDUM

6-12685

TO: Ned Mantel
FROM: Danielle Clair
RE: Correspondence Contact # 229
CALL

Today's date: 9-7
Request for review of correspondence to addressed to: Governor Roberts
Draft due: ASAP, before Friday, 9-9

Martha Pagel

Please prepare a draft response to the attached correspondence

- The Governor's signature.
- Martha's signature
229

Am 3/4
Call Home
665-9242

11/12/95

Ned - re WRC meeting.
Said he called all/outcome.

Part

Mart
Direc

Bradley Howe from

MOP:

Home - he

ira Roberts
rnor

OR

Anne W
Senior F
Natural

Will check his

(your initials) (letter id #)

AWS: (y

home phone recs

And as pe
should beg

re: Coste Lake

s or Martha's response

RECEIVED

SEP - 0 1994

WATER RESOURCES DEPT.
SALEM, OREGON

229

September 1, 1994

State of Oregon
Water Resources
3850 Portland Rd. NE
Salem, OR 97310

Dear Sir or Madam: *(Mrs. Page)*

On behalf of the Croft Lake Association, I would like to express my deepest concerns regarding additional water use permits within the watershed of Croft Lake. Our association has found many difficulties trying to communicate our observations of water availability within the watershed. We feel that our objections have not been taken seriously in the past, and being notified about the permit process has been lacking.

It has been brought to our attention that upcoming hearings regarding water use applications for Spencer (G 12341 and G 12685) and Warnock (G 12692) will be held possibly September 8 or 9. We are unable to have a representative at this hearing and we feel strongly that this is our concern. We request that these issues not be discussed until we are fairly notified of a hearing.

Currently, the summer of 1994 has been a very dry one. The streams within the Croft Lake watershed are extremely low. We are in the process of taking flow measurements to determine if our association is obtaining our established water appropriation. We are conducting this with the help of John Drolet, the watermaster for the south coast basin. Measurements will undoubtedly show that our water rights are not being fulfilled. The lowest stream flows are yet to come.

Enclosed with this letter is a copy of phase 1 of a large watershed/ecosystem management project we are carrying out with the help of the Oregon Graduate Institute's department of Environmental Science and Engineering. Phase 1 encompasses a detailed analysis of the hydrologic cycle of the Croft Lake watershed. Phase 2 will look at the ecosystem of the three salmonid species of this watershed. Phase 3 will look at the role of agriculture in the area. These three phases will be conducted simultaneously. If you are interested in taking part in this study, please let us know, but at the very least, please consider our position and we request better communication in the future.

Bradley R. Howe

Bradley R. Howe
Croft Lake Association
Croft Rd.
Bandon, OR 97411

Home Address

1980 SW Lake Pl.
Gresham, OR 97080
503-665-9242

HYDROLOGY, AGRICULTURE, AND SALMON

*A Research Proposal for the Study of the Hydrologic Cycle
in the
New River Watershed on Oregon's South Coast*

Bradley Robert Howe

Oregon Graduate Institute of Science and Technology
Department of Environmental Science and Engineering
20000 NW Walker Rd
Beaverton, OR 97006

August 3, 1994

BACKGROUND

A unique river and estuary system, known as New River, is located about 25 miles south of Coos Bay along the southern Oregon coast. Human inhabitation of the area dates back more than eight thousand years, with the first European settlers arriving to the area in the late 1850's. Alterations to this watershed have occurred throughout this period, with the majority of the changes happening in the last half century.

New River begins as Floras Creek at the headwaters in the coastal foothills. As Floras Creek flows west and approaches the Pacific Ocean, the creek's course veers northward, becoming New River. New River flows north for about eight miles separated from the sea by a narrow foredune before emptying into the ocean. Along New River's stretch, many tributaries merge. Most tributaries are streams, with several draining small coastal lakes.

Within the watershed of New River, human activities consist of agriculture, a small amount of timber harvesting, residential, recreational use, and wildlife habitat. The major agricultural activities consist of cranberry production, and sheep and cattle grazing. The majority of the watershed is in private ownership, while the BLM owns much of New River and its immediate riparian zone. New River has been designated by the BLM as an Area of Critical Environmental Concern (ACEC). This area is home to a diverse amount of fish and wildlife. Fourteen endangered or threatened animal species inhabit this land, or utilize the area during seasonal migration.

Four anadromous fish species start their life cycle within this watershed: coho salmon, fall chinook salmon, winter steelhead, and sea-run cutthroat trout. These are native runs with viable populations present. As with everywhere else, these populations are severely depressed from historical numbers. As we are learning, many factors contribute to the decline of the salmon. Within the New River watershed, clearing of the land for timber or farmland, ditching and/or diking to turn wetlands into agriculture or grazing land, as well as changes to the hydrologic cycle due to irrigation, have had negative impacts on the salmon. Poor ocean conditions and overharvesting of our resources have also caused negative impacts.

SURFACE WATER HYDROLOGY

A closer examination of one tributary system that merges with New River will provide a more detailed picture of the current condition of the watershed (see Fig 1 on page 8). Conner Creek merges with Davis Creek, then Davis Creek flows into Croft Lake, one of the small coastal lakes in the watershed. Croft Lake then flows through sand dunes vegetated with coastal pine and European beachgrass, on into New River. This sub-

watershed covers 4.5 square miles, or five percent of New River's watershed area. The grazing of sheep on grass covered hills, and cranberry production on the coastal plane encompass activities along the upper and middle sections of the Croft Lake watershed. The lower watershed is managed by private land owners and the BLM with a goal of maintaining the native ecosystem. Steelhead, coho salmon, and sea-run cutthroat use Davis and Conner Creeks to spawn. However, these are some of the most depressed runs in all the New River watershed.

Stream surveys from 1962 of Conner and Davis Creeks show Conner Creek to be 4.5 miles in length with 4.0 miles of suitable salmonid habitat, and 10 percent of this area to be good spawning grounds. Davis Creek was found to be 5.0 miles with 4.0 miles of suitable habitat, and 40 percent of this was good spawning habitat. This is only speculation from observation, but surveys today would more than likely reveal only a fraction of the habitat that once existed. The Oregon Department of Fish and Wildlife has recently conducted fish sampling within the New River watershed and within Davis and Conner Creeks, and coho, steelhead and sea-run cutthroat juveniles are present throughout the watershed. Proper management of our water and salmon resources is vital. Understanding how much of the resource and habitat actually exists should be the first step.

With the enormous acreage of pasture lands for sheep, significant run-off can occur and it is believed that streams rise quickly with usually a higher maximum and a lower minimum flow rate as compared to the native forested ecosystem where run-off is slow and water storage capacity is much higher. The higher run-off rate (ROFF) of the disturbed ecosystem will lower the infiltration rate (INF) as well. The hydrologic cycle would take longer to recover after disturbances such as high irrigation demand. The ROFF:INF ratio increases with this changed watershed, and a higher ROFF:INF ratio indicates a less healthy ecosystem.

Salmon are thought to be quite sensitive to changes in their aquatic environment. The macro-changes in watershed land use, stream flow, and overall habitat reduction are easily contributors to the decline of the salmon. Relatively small changes in the environment with regard to water chemistry more than likely play a large part in the decline as well.

Large organic debris such as tree trunks, branches, and root wads were a larger part of the stream structure when the land was more forested. Storage capacity of the watershed was greater and groundwater made a more significant contribution to minimum stream flows. Groundwater is the water stored by the soil, and water contained within underground aquifers. Groundwater flows and healthy riparian areas help keep water temperatures down within the survival range for salmonid species. Surface temperatures

of Croft Lake measured 70° F in early September 1993, and New River's temperature measured 75° F. These temperatures are near lethal limits for salmonid species. There is some speculation that the New River subspecies of salmonid may have a higher tolerance for increased temperatures. Increased temperatures also alter water chemistry which has an effect on all that is connected with the aquatic ecosystem. This in my opinion is the major problem the salmon of New River face, and one that must be addressed for restoration efforts to have success. Other negative factors will be addressed with future research, but water quantity and temperature overshadow all other problems.

TIMBER HARVEST/LAND CLEARING

Logging has not been a significant part of this watershed for many decades, but some still occurs in parts of the New River watershed. Clearing the vegetation from the land to develop new agricultural lands is still prevalent. Salmon runs remained strong but decreasing into the 1960's. Conversations over the years with long-time area residents indicate a great deal more fish at the turn of the century and into the 1930's than even thirty years ago. The hydrology also has been altered for irrigation and drainage. It is believed that higher surface water temperature and lower minimum flows have resulted due to these land use practices. Riparian zones have been degraded with these activities, and stream morphology has been altered by water diversions. Soil and water chemistry have changed due to these activities. These are some of the factors that will need to be addressed when watershed restoration begins.

IRRIGATION

Irrigation plays a major role in the ecosystem of New River today. The majority of the irrigation water used is for the production of cranberries. Irrigation of pastures and other crops make up the balance. For irrigation of these crops, water is obtained from a combination of surface and groundwater sources. The groundwater sources consist of drilled wells, sump wells, and reservoirs or storage ponds filled from run-off or groundwater movement into the ponds. Existing water permits from the Oregon Water Resources Board total just over 28 cubic feet per second in the Croft Lake watershed. This figure is for all water sources combined. This is the total amount of water that can be legally extracted for use from the watershed. Probably very rarely is this figure of consumption being attained at any given time. It has been said that the 28 cfs is not ever fully utilized by the permit holders.

For the cranberry industry, water is used to irrigate the crops, cool the crops on days the temperature exceeds a given maximum, protection from the cold when

temperatures fall below a given minimum, and during harvesting of the crop in the fall. The fall harvest diverts large amounts of water from the areas hydrologic cycle. It is said that 70 percent of the diverted irrigation water is returned to the hydrologic cycle. Changes that occur to the hydrology will be examined shortly.

The cranberry industry has a water use factor of just over 6 ac-ft/acre, which is high by agricultural industry standards. Water use figures for irrigated pasture land are on the order of 1.4 ac-ft/acre. The return water from agriculture certainly can be a precious commodity, even if it is less than perfectly "fresh" water. Low precipitation years are not uncommon, and the stresses following the initial impact that aquatic populations experience are felt for many years.

WATER BALANCE

This area of the south Oregon Coast receives between 55 and 75 inches of precipitation per year (Coos County Soil Survey). The watershed for Croft Lake measures roughly four and one-half square miles (USGS Topographical Map). Table 1 (next page) was derived from daily measurements of potential evapotranspiration rates (ET) and precipitation from a US Bureau of Reclamation measurement site about four miles north of Croft Lake. Evapotranspiration is the combination of evaporation and moisture transpired from vegetation. Due to the close proximity of the measurements, with nothing present in the local environment to influence climate, ET rates and precipitation were assumed to be the same in the Croft Lake area. The measurements were taken for the calendar years 1987-1993.

Not one of the years recorded precipitation is within the supposed normal precipitation range. The last column represents the amount of water that was available to the watershed after potential ET figures were subtracted. This amount of water drives groundwater recharge, stream flows, and irrigation needs. In 1987 and 1993, an abundance of water was present. However, 1991 and 1992 figures show only 75 and 134 million gallons of water per year respectively to drive all these processes. These figures are also equivalent to only 0.97 and 1.79 inches of precipitation per year after ET figures were subtracted. In these years, stream flows in late summer and early fall were extremely low. Late summer and early fall is also when the cranberry industry has its greatest need for water. Groundwater is utilized heavily, lessening potential base flow of water from aquifers to streams and lakes.

TABLE 1: Estimated Water Balance for Croft Lake Watershed, 1987-1993

Total Area: 4.5 square miles

YEAR	Precipitation	Potential Evapo-transpiration	Precip Minus evapotrans.	Net Runoff and Groundwater Recharge
Avg Ppt / Year for Croft Lake	60.00 (in/yr)	35.00 (in/yr)	25.00 (in/yr)	1959 (Millions of Gallons/yr)
1987	50.06	30.85	19.21	1496
1988	46.72	31.00	15.72	1227
1989	39.09	33.10	5.99	464
1990	53.31	35.28	18.03	1406
1991	39.69	38.72	0.97	75
1992	39.45	37.66	1.79	134
1993	54.79	35.57	19.22	1496

(Average precipitation for south Oregon Coast= 55-75 inches—Coos County Soil Survey)

The remaining surface waters are also heavily utilized, resulting in low flows at higher temperatures. Residence time of water is that time which it takes water to flow through a given system. When water is diverted, residence time increases. In the case of storage ponds, this residence time increase could be substantial. An increase in residence time can lead to increased temperatures of the water via more time for solar input.

GROUNDWATER PUMPING

Moving water from deep storage in groundwater to the surface creates a multitude of effects that need to be examined. The removal of a volume of water from the ground creates a reduced localized pressure in the aquifer. The pressure is compensated for by water moving back into the aquifer from other areas with higher pressure. Water from adjacent aquifers can move to compensate if there is interaction between aquifers. Several aquifer layers are thought to exist in the ground below the Croft Lake watershed. Little data is available to substantiate this, nor are there figures for total ground water storage capacity in the area. If there is a hydraulic connection to the surface water of nearby streams or lakes, pressure gradients can be compensated with flow changes to or from these sources. This certainly must have an impact on the hydrologic flows between the ground and the surface when large quantities of water are pumped from the groundwater of a small area. Relationships between surface and groundwater, riparian areas, bank storage, channel

changes, flow changes, water quality and quantity are definitely crucial for the salmon and the ecosystem, and must be better understood.

During the fall harvest of cranberries, shallow domestic wells in the lower watershed dropped six feet in a 48 hour period in 1991. Muddy Lake, a small lake adjacent to Croft Lake, which has no surface inlet or outlet, showed a marked drop in surface level in conjunction with cranberry harvest. Flow through the upper reaches of New River sometimes cease in association with low precipitation and heavy irrigation demand. High predation of juvenile salmon trapped within isolated pools resulting from discontinuous flows has been observed. Suffocation and temperature stress can also add to mortality and stunted growth of the juvenile salmon.

Currently, additional water use permits in the Croft Lake watershed for over 30 cfs are now pending for review by the Water Resource Board. These water use permits are primarily for additional cranberry production. Given the fact that the 28 cfs of existing water rights that may not be fully utilized at the present and the demonstrated drop in groundwater levels during fall harvest, more precise data should be obtained about this water resource before giving more away.

In the particular case of the Croft Lake watershed, studies will undoubtedly show an over-utilization of the water resource under the presently uncoordinated diversions. With the added demand for water and an abundance of winter run-off, methods must be developed to capture more of this water source. This must be done with health for the aquatic ecosystem as the prime beneficiary. Private citizens, government, and environmental groups need to come together on this for optimal success.

PROPOSED RESEARCH ACTIVITIES-overview

The two stages of this research project are to 1) quantify detailed hydrologic cycles of a watershed and 2) begin defining and implementing restoration activities that will be as efficient as possible. With an understanding of the hydrologic cycles, diversion of water can be optimized while maintaining watershed health. With the salmon, this also equates to ecosystem health.

Factual data that will be gathered to help reach these goals will shed some understanding of the aquifers underlying the watershed, their capacity, and interactions with area surface waters. Stream flow, precipitation, evapotranspiration, water temperatures, stream morphology in connection to flows, and water quality measurements will all be tracked. Since irrigation is now a major component of the hydrologic cycle, this too will have to be factored in. The ultimate goal of course, is to maximize our ability to utilize the water resource while we minimize our alteration to the hydrologic cycle.

The hydrologic cycle for any watershed begins with the input of precipitation. When precipitation hits the ground, either infiltration into the soils occur, evaporation or transpiration by vegetation, or under saturated conditions, run-off can take place. Evaporation and plant transpiration, collectively known as evapotranspiration, can account for as much as 75% of the yearly precipitation being returned to the atmosphere. The remainder of the precipitation recharges groundwater, is held in soils, or is present as surface water ultimately headed for the ocean. This part of the hydrologic cycle not only gives rise to the freshwater ecosystem of the salmon, but it is also that which provides needs for municipal, industrial, agricultural, residential, and recreational water use. Providing for all needs will require better understanding of watershed hydrologic cycles.

Figure 1 depicts the hydrologic cycle in the Croft Lake watershed. The following formula represents a yearly water budget for watersheds;

$$P = Q + E + \Delta\text{Surf} + \Delta\text{Ground} + \Delta\text{Soil Storage}$$

where,

P= precipitation in millions of gallons/year

Q= stream flow

E= evapotranspiration

ΔSurf = change in surface water storage

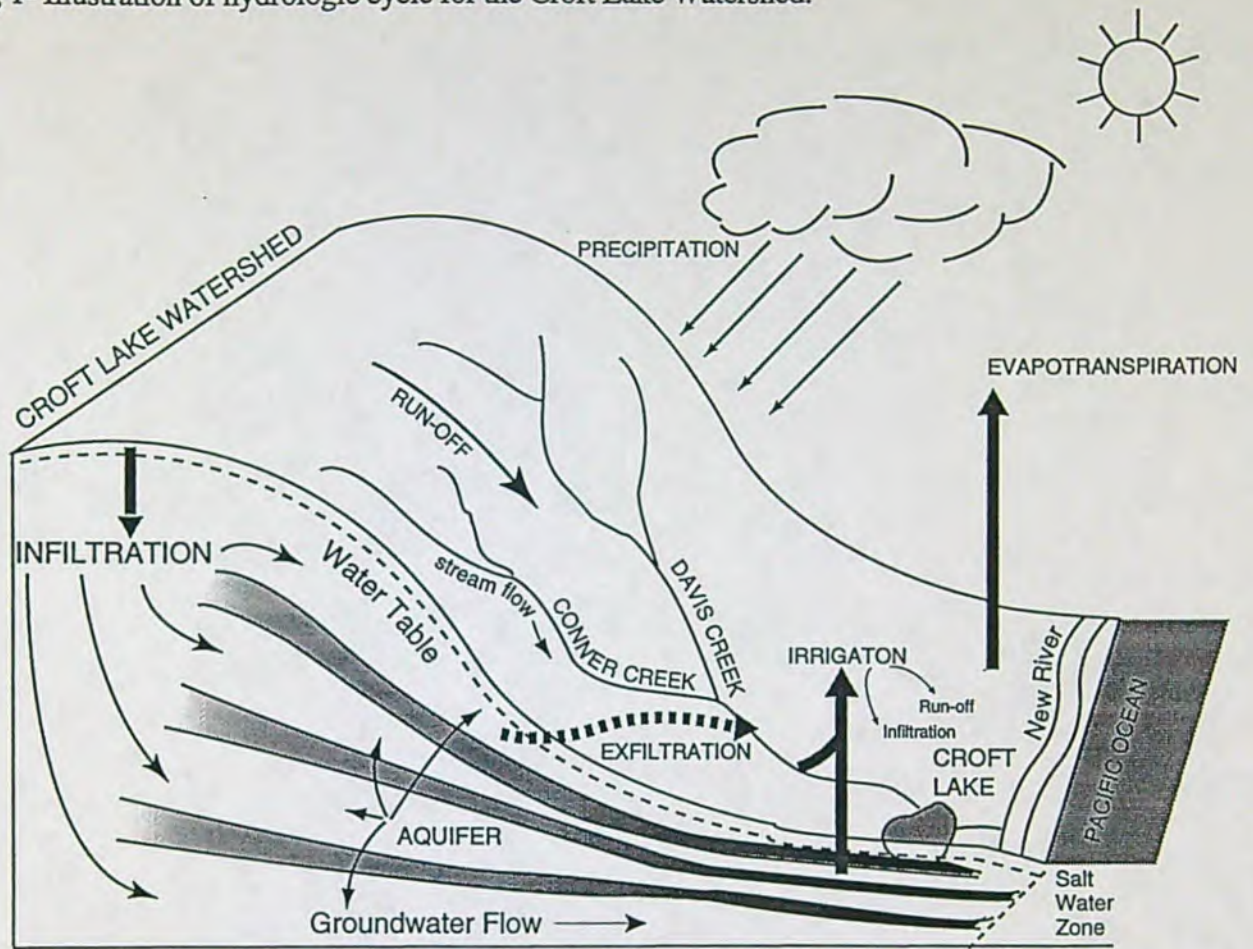
ΔGround = change in groundwater storage

$\Delta\text{Soil Storage}$ = change in water content of soils.

Precipitation will be measured directly in the upper, middle and lower watershed via rain gauges monitored daily. Actual evapotranspiration will be measured via a lysimeter also at the three sites in the watershed. Data for both precipitation and evapotranspiration should differ even for the small distances involved. Stream flows will be measured directly at several sites throughout the watershed. This is necessary since,

$$\text{Stream Flow} = \text{Exfiltration} + \text{Run-off} + \text{Irrigation Run-off} - \text{Stream Bed Infiltration}$$

Fig 1- Illustration of hydrologic cycle for the Croft Lake Watershed.



Evapotranspiration= evaporation plus transpiration from vegetation

Precipitation= rainfall, fog drip, condensation

Run-off= overland flow of water

Stream Flow= water which flows in the streams from run-off and exfiltration

Infiltration= water which soaks into the ground and connects to groundwater

Exfiltration= water moving from groundwater to surface water

Irrigation= water diverted from the hydrologic cycle for agriculture

Aquifer= underground reservoir of water either confined or unconfined

Groundwater= water stored by soils and water contained within aquifers

Measurements at several points furnishes data on the components of stream flow between measurement sites. Run-off can be measured with knowledge of infiltration rates within the watershed.

$$\begin{aligned}\text{Run-off} &= \text{Precipitation} - \text{Infiltration} - \text{Evapotranspiration} \\ \text{Infiltration} &= \text{Groundwater Recharge} + \text{Soil Storage}\end{aligned}$$

Rates of infiltration are dependent on the hydraulic conductivity of soils and the difference in water potential that exists between the surface and the soil.

$$\begin{aligned}\Delta\text{Ground} &= \text{Infiltration} - \text{Irrigation Withdrawal} - \text{Exfiltration} \\ \Delta\text{Surface} &= \Delta\text{Lake Volumes} + \Delta\text{Reservoir Storage Volumes}\end{aligned}$$

The formula $P = Q + E + \Delta\text{Surf} + \Delta\text{Ground}$ is now defined and with data, a water budget can be produced.

However, exfiltration and infiltration cannot be measured directly for the entire watershed causing some potential for error. This is mainly due to variations of soil type within the watershed. For a better understanding of groundwater flows and aquifer characteristics, static head measurements will be taken several times throughout the year on a majority of the irrigation and domestic wells within the watershed.

$$Q = -K(dh/dl)A$$

Q= Groundwater flow rate

K=Hydraulic Conductivity

A= Cross sectional area

(dh/dl)= Hydraulic gradient

where h= static head height

l= distance between measurements.

d= differential

Application of this formula to the static head data gathered throughout the year will help to better understand the groundwater resources of the watershed.

When these detailed data gathering activities are completed over time, a very clear view of the hydrologic cycle will emerge and solutions for restoring and/or maintaining watershed health can actively be pursued.

Temperatures of stream systems have been determined to be critical for the survival of juvenile salmon. Clearing of the land, which increases solar irradiation, to altering interactions between ground and surface waters and riparian zone destruction contribute to the overall water temperature (Fig. 2). Groundwater through exfiltration powers the minimum stream flow throughout the year. The temperature of groundwater is typically around 50-55 F, which turns out to be an optimum temperature for the salmonid species. The temperature of the ocean off the Oregon coast is typically within the mid-fifties range. This probably is not a coincidence. Warmer stream temperatures, and in the case of El Nino, warmer ocean temperatures, adversely affect salmon health.

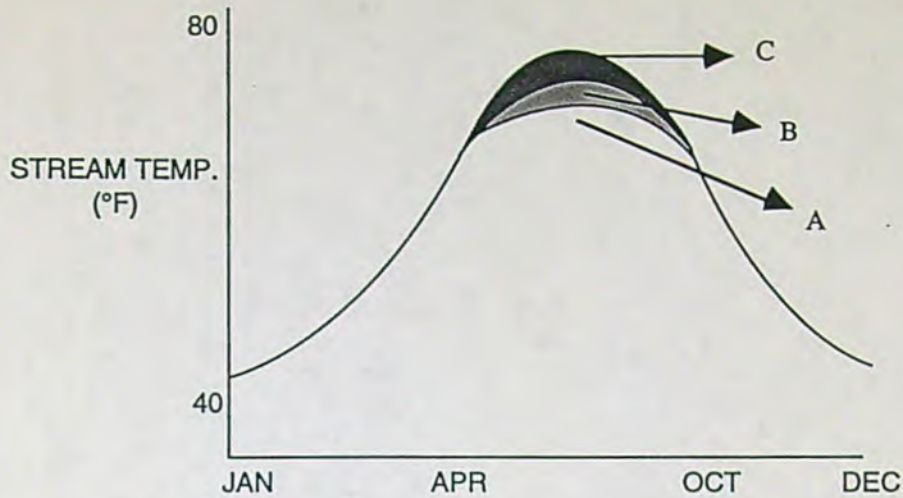


Fig 2-Illustration of potential temperature effects with changes in the exfiltration rates to stream flow. A-low exfiltration rates B-normal exfiltration C-normal exfiltration and a healthy riparian zone.

A major problem that occurs when streams reach their minimum flow periods in late summer and fall, is the heavy pumping of groundwater which lessens minimum stream flow even more (Fig 3). The result is an increase of water temperature in the streams due to less input from the cooler groundwater. Flow being slower, residence time of the remaining water increases, leading to many water quality and fish habitat changes. The groundwater mechanisms will certainly be important information when restoration of this watershed begins.

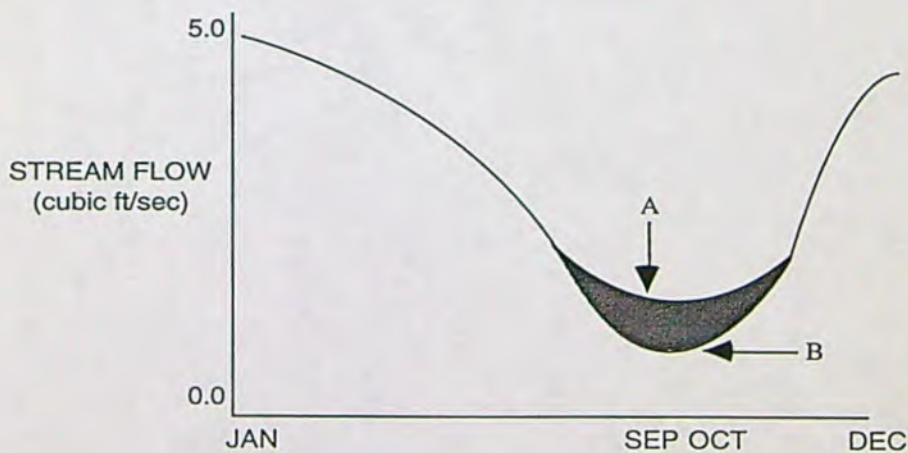


Fig 3-Illustration of lowering minimum stream flow under irrigation demands. A-natural stream flow conditions B-reduced minimum flow due to irrigation demand.

At the other end of the spectrum is winter and early spring. Winter on the Oregon coast usually produces an abundance of precipitation. This precipitation recharge aquifers, cleanse the streams and wetlands and sets the land up for another season. However, once soils and groundwater reach saturation stages, additional precipitation leads to an increase in run-off. Human impacts have reduced the watershed's ability to retain optimal volumes of water. Knowledge of hydrology mechanisms can help determine many possible methods for storing this run-off for use in the drier summer months to enhance the areas hydrologic cycle. This is one option for decreasing dependence on the groundwater resource during minimum flow periods when it is most needed by the aquatic ecosystems.

PRODUCTS

In conducting background research for this project, I was saddened by the rarity with which I came upon successful restoration or enhancement projects. The greatest benefit of all will be to provide a success story that leads to restored and enhanced salmon populations without great sacrifices of our local economies. A watershed/ecosystem model will be developed that will help to provide a working solution for our salmon crisis encompassing human and environmental needs. This model can then be utilized as a tool for other watersheds throughout the region to better balance our needs both economically and environmentally.

Since watershed/ecosystem management are now considered to be a better approach to managing our natural resources, better understanding is vitally needed of hydrology mechanisms within watersheds. If we are to wisely use our water resources, we should at least have a better idea of how water moves throughout a watershed. As far as native plants and animals go, dependence upon water is the common link. Water and watersheds will be dealt with in an increasing manner as we become more aware of our environment and water resource demand increases.

The salmon will certainly benefit, as will the agricultural community. Watersheds with abundant precipitation can have a win/win solution where water resources can continue to be utilized, and the needs of the ecosystem are fulfilled. If salmon populations can be revitalized, this will go a long way to indicating the environment is healthy for other species, as well as area residents.

Interests from outside the watershed that will benefit include many government agencies, both local, state, and federal. These include other BLM lands, US Forest Service, USGS, EPA, Oregon Water Resources, USDA, Bureau of Reclamation, soil and water conservation districts, other watershed councils, environmental groups, irrigation districts, water users in general, ODF&W, salmon-trout enhancement programs, and the list goes on. Each of these groups will or have at some point dealt with watershed/ecosystem questions. Getting factual information back to these groups can only help lead to better decisions made by the policy makers.

INSTITUTIONAL CAPABILITIES

The Environmental Science and Engineering Department of the Oregon Graduate Institute is a very respected and well-rounded scientific institution. Watershed and ecosystem management requires vast knowledge of a multitude of biological, chemical, and physical science. The more human impacted a system is, the more complex these interactions become. Oregon Graduate Institutes philosophy is to help find solutions to our problems, not new definitions. Communication and education is stressed, two components necessary for communities to succeed in management of watersheds.

As principle investigator for this project, Dr. Wesley Jarrell brings his valuable knowledge and experience in ecosystems and watersheds. Dr. Jarrell has spent many years helping to understand the mechanisms of the Tualitan River watershed west of Portland in order that more comprehensive management of the watershed will result. He and the Oregon Graduate Institute support my belief that common ground can be found to manage our watersheds for all needs. Soils are an underestimated factor in ecosystems, especially aquatic. With his knowledge of soils, Dr. Jarrell will help shed light on the interactions of soils, water movement, and connection to the habitat of the salmon.

The Department of Environmental Science and Engineering at the Oregon Graduate Institute exemplifies one of the most advanced research facilities on the environment we have available to our society. From the highly respected staff to the extensive inventory of modern analytical equipment, the Oregon Graduate Institute will certainly be a valuable asset in finding solutions to our environmental problems.

INDIVIDUAL CAPABILITIES

A B.S. in biology from Oregon State University, long term observation of the New River watershed, and now my graduate studies at the Oregon Graduate Institute's Environmental Science and Engineering program studying under the direction of Dr. Jarrell provide for an excellent background. In addition to my studies, I have developed this project to help find solutions at the watershed level. However, as much as science is needed, cooperation from other interests within the watershed are critical for success.

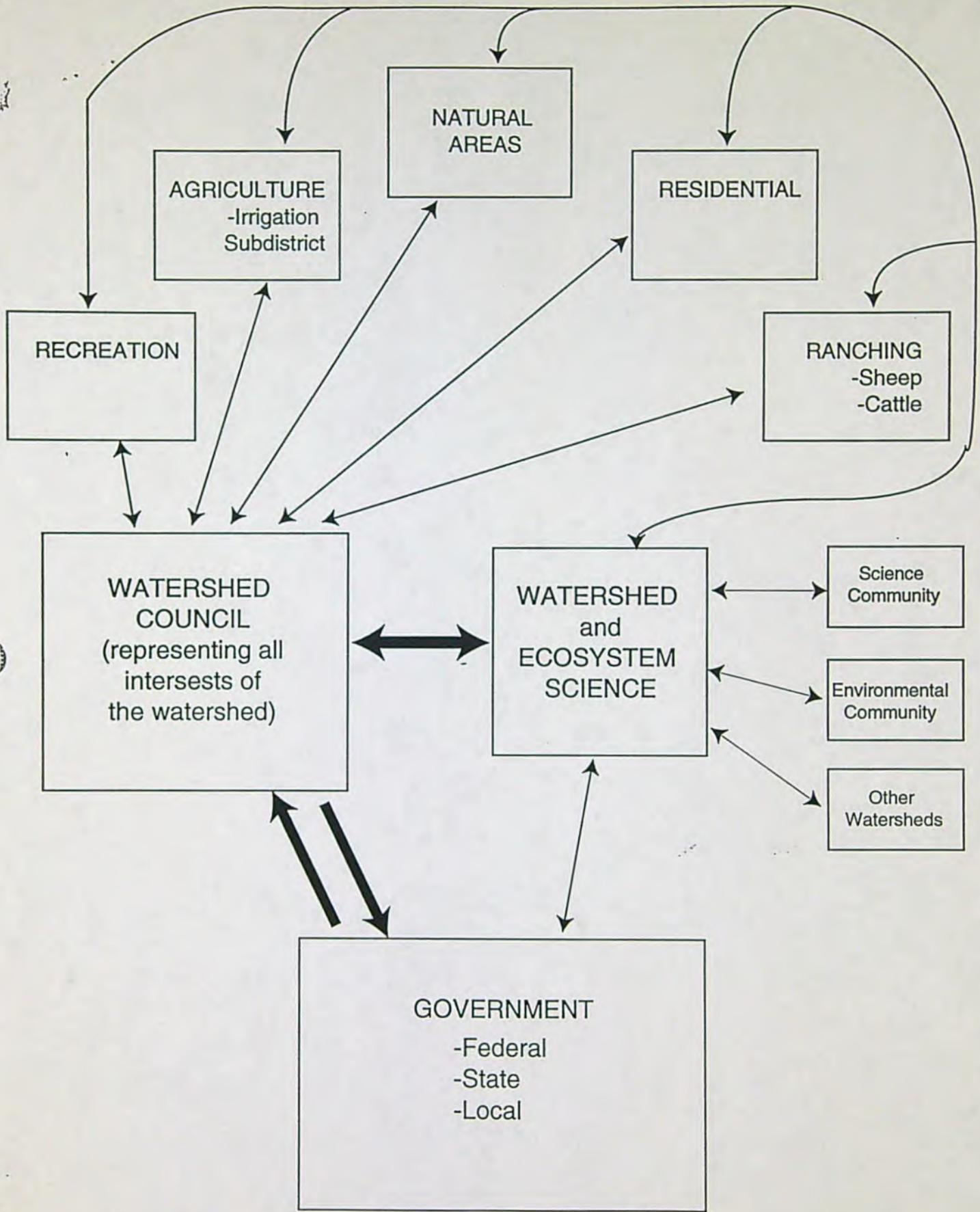
Last fall, with the help of John Drolet, Coos County Watermaster, a series of meetings were held with the local water users of Croft Lake watershed. Water users in this part of the New River area are predominantly cranberry growers with the Ocean Spray Cooperative. Concerns were expressed, understanding was gained, and we were all a bit more educated. The consensus was that something should be done for the salmon, and as long as the needs of the growers were considered, cooperation would be forthcoming.

Extensive discussions have also been held with members of the Bureau of Land Management who oversee the New River ACEC. Neal Middlebrook, BLM District Manager, and Sabrina Keene, New River Manager, have been very supportive in developing this cooperative effort. Together with the BLM, and other local landowners, I am helping to form a watershed council for New River so that activities throughout the watershed can be coordinated.

Many groups and individuals from the environmental community have provided help. Karen Russell of the environmental group WaterWatch, has been very supportive of this project and has toured the area and attended one of last fall's meetings. WaterWatch is currently trying to stop additional water right permits from being issued in the Croft Lake watershed. WaterWatch feels more knowledge of the water resource is needed before additional permits should be issued.

The Oregon Department of Fish and Wildlife has also been consulted. Todd Confer, Assistant District Fisheries Biologist, will conduct additional stream surveys of Davis and Conner Creeks this summer, as well as other areas of the New River watershed. Potential blockages to adult salmon passage and habitat improvements are being addressed.

In short, all factors necessary for a successful watershed management plan are coming together. The science is needed to set an appropriate direction toward restoration of this watershed, and to demonstrate that our watersheds can be productive for our economy, as well as for the salmon and other wildlife



LAW OFFICES
CEGAVSKE, JOHNSTON, YOCKIM & ASSOCIATES

425 S.E. JACKSON STREET
P.O. BOX 218
ROSEBURG, OREGON 97470

RECEIVED

JUN 20 1994

TEL (503)673-5528
FAX (503)672-0977

WATER RESOURCES DEPT.
SALEM, OREGON

June 16, 1994

WALLACE D. CEGAVSKE
KATHRYN JOHNSTON
RONALD S. YOCKIM

Martha O. Pagel
Director
Water Resources Department
158 12th Street NE
Salem, OR 97310-0210

RETURN RECEIPT
No. P 198 147 575

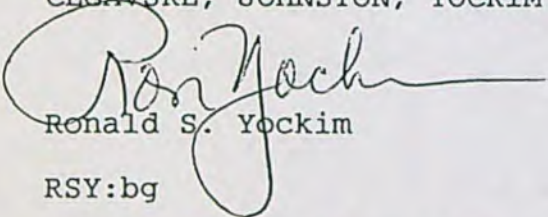
Re: Application Files R-71841, 71842, **G-12685** & G-12701
Our File No. 92133-A

Dear Ms. Pagel:

In reference to our letter to you of June 8, 1994, our client informs us that there is another application pending (No. G-12701) that should be included in our June 8, 1994 demand. We request that application No. G-12701 be added to our demand.

Sincerely,

CEGAVSKE, JOHNSTON, YOCKIM & ASSOCIATES


Ronald S. Yockim

RSY:bg

cc: Benjamin (Kip) Lombard
Russ Fraser

LAW OFFICES
CEGAVSKE, JOHNSTON, YOCKIM & ASSOCIATES

JUN 15 1994

425 S.E. JACKSON STREET
P.O. BOX 218
ROSEBURG, OREGON 97470

WAILE... DEPT
SALEM, OREGON

WALLACE D. CEGAVSKE
KATHRYN JOHNSTON
RONALD S. YOCKIM

TEL (503)673-5528
FAX (503)672-0977

June 8, 1994

Martha O. Pagel
Director
Water Resources Department
158 12th Street NE
Salem, OR 97310-0210

RETURN RECEIPT
No. P 198 147 574

Re: Application File 71841

Dear Ms. Pagel:

On behalf of Russell Fraser, Roderick Fraser, and Harry Spencer we are writing to request that the following applications be processed in accordance with OAR 690-11-175(6).

R-71841 71842

G-12685

G-12701

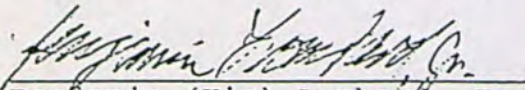
According to our records the above referenced permit applications had protests filed on them over one year ago. When protests are timely filed, the Director is required to refer the application along with the objection(s) and protest(s) to the Commission for review. (OAR 690-11-175(6) As of this date no action has been taken relative to processing the permits since the filing of the protests. Demand is herewith made upon you to perform the provisions of OAR 690-11-175(6) and to place these permit applications on the agenda for the next Water Resources Commission meeting scheduled for July 21-22, 1994 in La Grande, Oregon.

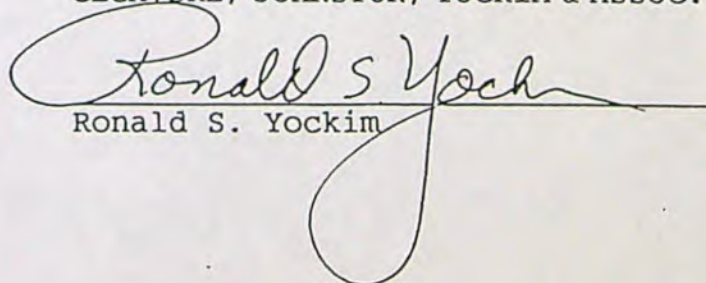
Please advise of your response to this demand within ten days of your receipt of this letter.

Respectfully submitted:

LOMBARD, KNUDSEN, & HOLTEY

CEGAVSKE, JOHNSTON, YOCKIM & ASSOC.


Benjamin (Kip) Lombard, Jr.


Ronald S. Yockim

WaterWatch

RECEIVED

OCT 10 1994

WATER RESOURCES DEPT.
SALEM, OREGON

By FAX (503)378-8130 and regular mail

October 6, 1994

Reed Marbut
Steve Brown
Water Resources Department
158 12th Street NE
Salem, Oregon 97310

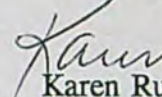
Re: Spencer Application ~~G-12785~~^{G-12685} and Warnock Application G 12692

Dear Mr. Brown and Mr. Marbut,

Please send me a copy of the permits issued for the Spencer and Warnock applications as soon as they are issued.

Thanks.

Sincerely,


Karen Russell
Assistant Director

RECEIVED

DEC - 9 1994

WATER RESOURCES
SALEM, OREGON

BEFORE THE WATER RESOURCES COMMISSION
OF THE STATE OF OREGON

In the Matter Of)
Groundwater Permit)
G-11826, Application)
G12685)

PETITION FOR RECONSIDERATION

Pursuant to OAR 690-01-005, 137-04-080 and ORS 183.484(2), 536.075, WaterWatch files this petition for reconsideration of the water right permit G-11826 issued by the Director October 5, 1994. Given the omission of pertinent supporting data, conflicting Department analysis, misinterpretation of one of the governing rules, utilization of the wrong standard of review, prejudice to other applicants, endangered species concerns, and basic public interest concerns, WaterWatch requests that the Commission reconsider and rescind the permit, group it with the other pending applications for the New River Basin, and wait to process it, along with the others, until adequate data on the surface water and ground water resource is collected and analyzed.

The Permit

On October 5, 1994 the Oregon Water Resources Department (hereinafter the Department) issued water right G-11826 to Harry G. Spencer for cranberry and nursery operations. The Water Resources Commission (hereinafter Commission) had found, on September 9, 1994, that the proposed use of water would not impair or be detrimental to the public interest.

The groundwater appropriation granted by this permit lies within the Croft Lake area of the New River Basin. This basin is a unique and fragile ecosystem that is home to a number of rare plant and animal species, many of them listed or petitioned for listing under state and federal Endangered Species Acts. Stocks of coho and fall chinook are currently listed by ODFW as state sensitive, and coho are currently being considered for listing under the federal ESA.

This fragile ecosystem is coming under increasing pressure from development interests, especially the cranberry industry. There are currently over 70 applications (groundwater, surface, and reservoir) pending within this basin, with a majority of those being within the Croft Lake area. Most of these applications will impact already low flows in the basin. Staff itself has acknowledged that "[m]ost of these applications request appropriation of surface water, or groundwater found to have the potential for interference with surface water flows." See staff report for Agenda Item H.2, September 9, 1994. While federal and state agencies recognize that

the resource is overappropriated, they do not have adequate data to quantify their observations (i.e. dry streambeds). Without such data, water availability cannot be adequately determined.

Testimony of Dan Carpenter, BLM, and Stephanie Birchfield, ODFW, WRC Meeting October 28, 1994.

Amidst this uncertainty surrounding the capacity of the resource to support new uses, the Commission, at its September 9, 1994 meeting, approved this application for groundwater withdrawal. They determined that issuance would not be detrimental to the public interest because there was no potential for substantial interference.

The Commission erred in its determination for six reasons. First, the Commission's determination was based, in large part, on the staff report laid before it. This staff report was devoid of some pertinent information from the files which might have led the Commission to make a determination other than they did, including some contradictory staff determinations regarding the potential for substantial interference. Second, the governing Division 9 rules were not properly applied. Third, the Commission applied the wrong standard of review. Rather than analyze the proposed use to see if it would harm public welfare, health and safety, the Commission looked to see if it would harm existing rights. Existing rights are not at issue here. Fourth, this permit was granted out of order and thus unfairly prejudiced other applicants. Fifth, there was no discussion about the effect the potential listing of coho would have on this use. And sixth, the permit as approved did not contain adequate conditions to protect the public interest in the resource.

1. Omission of pertinent supporting data

The Oregon Administrative Rules mandate that in determining whether the proposed water use may impair or be detrimental to the public interest, the Commission shall consider the facts set forth in the application and supporting data. OAR 690-11-185(4)(a).

With regards to this application, the Department provided the Commission a staff report which included the Department's most recent groundwater/hydrology report that determined that there was no potential for substantial interference. However, the staff report did not include an earlier groundwater/hydrology report and supporting memoranda that found just the opposite. potential for substantial interference existed. Nor did it include any information that explained the Department's change in position regarding the potential for substantial interference.

As noted above, the Division 11 rules require that the Commission review supporting data. These past reports are arguably pertinent to the Commission's undertaking of a public interest review because they show that there is, at the very least uncertainty surrounding the potential for substantial interference. Arguably, it could be determined that there is the potential for substantial interference based upon the Department's analysis as a whole.

WaterWatch has attached the pertinent reports and memos that the Commission should have been provided with before the Commission so that they could have adequately whether the potential for substantial interference existed. As we explained in our protest, there are two different staff determinations in the application file which are apparently based on the same data. The first determination concluded there was potential for substantial interference. See Memo to File G-12685 from Sarah Meyer, 12/5/91. The subsequent determination back tracked slightly, although not completely, and "tentatively" concluded that the proposed use "may have low potential for substantial interference." Memo to File from Mike Zwart, 10/6/92. Staff acknowledged that this conclusion was "a tentative conclusion, and strong permit conditions were suggested." Memo to Carol Spence from Mike Zwart, 1/16/93. However, the permit conditions do nothing to eliminate interference or protect the public uses of the surface water resource. In addition, Department staff acknowledged the data used to make this tentative determination failed to contain "pre-test water level data," had "minimal water level recovery rate," and required "assumptions to be made regarding test conditions." Memo to File from Mike Zwart, 10/6/92. And finally, in a more recent memo, staff once again stated that "it was tentatively concluded that the wells may have low potential for substantial interference with Conner Creek." Memo to File from Mike Zwart, 8/22/94.

2. Misapplication of the Division 9 Rules

Despite the uncertainty the Department has exhibited regarding the potential for substantial interference, there seems to be no question that the aquifer is both unconfined and hydraulically connected to Conner Creek. See Memo from Mike Zwart to File, 2/16/93.

The Department's Division 9 rules require the Department to determine whether the proposed wells produce water from a confined or unconfined aquifer. OAR 690-09-040(1). The rules also require the Department to determine the distance of the proposed wells to surface water sources and whether the aquifer is hydraulically connected to surface waters. OAR 690-09-040. The rules then allow certain assumptions to be made depending upon the outcome of these determinations and require further analysis of the applications if the proposed uses do not fit within these assumptions. Id.

A review of the application file reveals that the aquifer is both unconfined and hydraulically connected to Conner Creek and that the proposed point of appropriation is within 1/4 mile of Conner Creek. See Memo from Mike Zwart to File, 2/16/93. Thus, under the Division 9 rules these facts mandate an assumption that there is potential for substantial interference. OAR 690-09-040(4)(a).

The rules do provide the applicant leverage to refute these assumptions. The applicant did submit data collected by their own hydrologist that asserted that the amount of withdrawal would not be seen in Conner Creek. See Memo to file from Sarah Meyer, 12-5-91. Department staff analyzed this data and concluded that "Ralls' hydrogeological report was very informative

and it presented a lot of valid data, yet, **there was nothing in the report to suggest that no hydraulic connection was occurring and that there was not a potential for substantial interference.**" *Id.* Based on this, Department staff concluded that "[d]ue to the proximity of the wells to the creek and the aquifer characteristics gained from the Ralls geological report, I think it is accurate to assume both hydraulic connection to Conner Creek and that the potential for substantial interference exists. *Id.*

Despite this, at the Commission meeting of September 9 Mike Zwart testified that although this proposed use would tap an unconfined aquifer and that the surface and groundwater were hydraulically connected, he believed the potential for substantial interference was low. Audio Tapes of WRC Meeting, 9/9/94. His determination seemed to be based on the fact that there are low permeability soils at the proposed site of the well. Thus, he argued, the assumption made pursuant to OAR 690-09-040(4)(a) was rebutted.

WaterWatch disagrees that the assumption was properly rebutted. However, even if it was, what seems to have been unclear at the Commission meeting is that the Commission could still have found that the potential for substantial interference existed. Under OAR 690-09-040(5) a groundwater appropriation that is hydraulically connected to surface waters (and isn't covered by subsection 4, which this use no longer is per the rebutted assumption) could be found to have the potential for substantial interference. In making this determination, the Department should have considered at least a) the potential for a reduction in streamflow or surface water supply, b) the potential to impair or detrimentally affect the public interest as expressed by an applicable closure on surface water appropriation, minimum perennial streamflow, or instream water right with a senior priority date, c) the percentage of the ground water appropriations that was, or would have become, surface water, d) whether the potential for interference would be immediate or delayed, or e) the potential for cumulative adverse impact on streamflow or surface water supply.¹

Applying these standards (at a minimum) the Department should have found the potential for substantial interference. Given the large number of groundwater and surface water applications in the area--that the staff has acknowledged will impact surface resources--it is likely that these proposed appropriations will reduce surface water supply and add to the cumulative effects of withdrawals on the resource.

¹ Note--these are the minimum parameters the Department should have looked at. They could also have looked at other factors such as the ACEC designation, the presence of potentially listed species under the federal Endangered Species Act.

3. Standard of Review

The Ground Water Act of 1955 (GWA)(ORS 537.505 et seq) governs the use of ground water in Oregon. Applications for new uses of ground water filed pursuant to ORS 537.615 are subject to review under ORS 537.620 and may be rejected or approved subject to ORS 537.620 through 537.625. The GWA sets forth two standards by which to gauge the effect of the proposed use: 1) whether the proposed new use will "impair or substantially interfere with existing rights to appropriate surface water by others" (ORS 537.620.3), and 2) to ensure the "protection of the public welfare, safety and health" when making groundwater permitting decisions (ORS 537.620(5)).

As noted, the over 70 pending applications in the New River Basin are posing a threat to the water resources of the area, and upon the many unique species that depend upon them. Given that the biggest threat is to the actual resource, rather than to existing water right holders, the Commission was in error in limiting the applicable standard of review to whether the proposed new use would "impair or substantially interfere with existing rights. It is not existing rights which are at issue. It is the health of the ecosystem as a whole. An ecosystem that is not protected by any quantifiable right. Thus, the Commission should have analyzed this application in light of their duty to protect the public welfare, safety, and health. In doing such, it would be apparent that protection of the waters that fed one of the last remaining wild places in Oregon was in the paramount interest of the "public welfare." For this and other reasons, the Commission should rescind this permit.

4. Prejudice to other applicants

As noted, there are over 70 applications pending in the New River Basin. Of these 70, at least 13 are senior in priority date to this permit. The Commission has directed the Department to process applications in the order received. In this case, not only did the Department violate the Commission's directive by bringing this application forward out of order, but the Commission itself violated its own order. This was in error and unfairly prejudiced those applicants with senior priority dates.

The approval of this application also prejudiced those applicants with junior rights. Because of concern over the water resource of the New River Basin, the Director has stated that she will group many of the pending applications together. By excluding this application from that grouping, and processing in advance of resource determinations that will bind the other applicants, the Department and the Commission have unfairly prejudiced all the other applicants who hope to procure some of this scarce resource.

5. Endangered Species Concerns

Coastal Coho, which utilize the New River System for various stages of their life cycle, have been petitioned for listing under the state and federal Endangered Species Act. These Acts place a burden on the Commission. Under the state Act, the Commission is required to consult with the Oregon Department of Fish and Wildlife to ensure that any action taken by the Commission is consistent with ODFW programs to conserve the species or, if no plan is in place, that the act will not "reduce the likelihood of the survival or recovery of the threatened species of endangered species." ORS 496.182(2). The federal Act prohibits the "taking" of endangered species. 16 USCA § 1538(a)(1)(B). Taking is defined in Section (3)(18) includes "harm" as well as killing and capturing. 16 USCA § 1532 (19). The regulatory definition of "harm" includes "significant habitat modification or degradation where it actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding or sheltering." 50 CFR § 17.3. Thus it is clear that actions by the Commission can rise to the level of an unpermitted taking of a species if habitat destruction or modification harms a listed species. See Palilia v. Hawaii Department of Land and Natural Resources, 649 F.Supp. 1070 (D. Hawaii 1986), aff'd, 852 F.2d 1106 (9th Cir. 1988). Significantly, the above referenced Palilia case, the oft-cited case on habitat alteration rising to the level of take, involved a state agency that allowed goats to destroy the food source of an endangered bird. Taking water from fish is at least as clear a causal connection.

The issuance of this permit in the face of probable coastal coho listing was not in the public interest. Given the precarious state of the resource, the Commission erred in giving away water which may in fact be needed by a listed species. Moreover, by doing such, they may, in the long run, be relinquishing the state's control over this water resource by basically setting up a situation whereby the only way to get the proper flows for fish is to have the federal government come in and set up an area of critical habitat under the Act. 16 USCA § 1533(b)(2). It has been a goal of the state not to allow resource conflicts to reach the level where federal intervention removes the state control. The proposed approval of this application will inevitably lead to these issues being resolved in Washington D.C. not in Oregon.

6. Public Interest in the resource is not protected by conditions as proposed

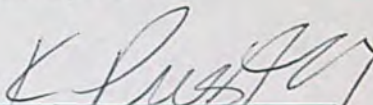
The permit fails to contain conditions that would protect the public interest in the resource. The permit does allow for regulation of water use, but only if it interferes with any prior surface or ground water rights. It does not allow for regulation if public instream needs are interfered with. As noted, it is the health of the water resource and the ecosystem it supports which is of great concern to federal and state agencies, various environmental groups, and the public at large. The Commission, in granting this permit without proper conditioning violated its duty to protect the public interest. For this and the aforementioned reasons the permit should be rescinded.

Moreover, given the combination of low stream flows and lack of data, the measuring and reporting conditions on this permit are inadequate. The permit does require measurement and reporting of the total duty of water used, however it still does not require measurement and reporting of both rate and duty and does not require reporting of the place and nature of use. These requirements are necessary in order to control the proposed sue and to ensure protection of the resource. For these and the aforementioned reasons the permit should be rescinded.

Conclusion

For the above reasons, WaterWatch respectfully requests that the Commission reconsider and rescind the permit, group it with the other pending applications for the New River Basin, and wait to process it, along with the others, until adequate data is collected and analyzed.

Respectfully submitted this 15 day of December, 1994.



Kimberley Priestley
Legal/Policy Analyst
WaterWatch

STATE OF OREGON
 WATER RESOURCES DEPARTMENT

INT. OFFICE MEMO

DATE : 12-5-91

TO: File G12685

FROM: Sarah Meyer *SM*

SUBJECT: Hydraulic Connection and Potential for Substantial Interference

As a result of Harry Spencer's inquiry on the status of his water right application, a repeat investigation was done on the hydraulic connection and potential for substantial interference from his two proposed pumping wells. Mr. Spencer had hired a geologist, R.J. Ralls, to investigate the situation and Mr. Ralls concluded that there was no hydraulic connection or potential for substantial interference. However, the initial evaluation from the groundwater section showed hydraulic connection and the potential for substantial interference in accordance with the WRD Administrative Rules 690-09-040. Because the two wells are unconfined and within one-fourth mile from Conner Creek, they are defined in the rules as being both hydraulically connected and having the potential for substantial interference. The existence of a hydraulic gradient between the creek and the wells is irrelevant in this kind of analysis because the wells are still intercepting groundwater that would have eventually added to the creek flow. There is flexibility in the rules that provide the applicant leverage to refute this method of evaluation. Since the applicant provided additional hydrogeological information from a licensed geologist, the Department felt a second, more in depth, review was justified.

The second review involved an analysis of Mr. Ralls hydrogeological reports of the two wells. According to Mr. Ralls, the two wells were tapping into an unconfined aquifer but the amount of withdrawal would not be seen in Conner Creek. Using parameters calculated from the results of two four day pump tests, Mr. Ralls based this conclusion on the amount of drawdown seen one hundred feet from each pumping well. At one hundred feet, well #1, pumping at 144 gpm for 100 days, would cause 5.58 feet of drawdown and well #2, pumping at 84 gpm for half a day, would cause 3.9 feet of drawdown. By extending this drawdown the distance to the creek, he concluded no effects would be seen.

As a double check, the data obtained from the pump tests was redrawn into graphs and hydraulic parameters were recalculated. The range of recalculated transmissivities included those calculated by Mr. Ralls as did the values of storativity for well # 2. However, Mr. Ralls storativity value for well #1 fell outside of our recalculated range of storativities.

	TRANSMISSIVITY	STORATIVITY
R.J. Ralls		
	well #1 16,982 gpd/ft	.174
	well #2 6,187-6,329 gpd/ft	.0062-.0083
WRD		
	well #1 8,280-22,770 gpd/ft	.107-.023
	well #2 2,708-34,065 gpd/ft	.0066

Plugging these values into Jenkins' Model gives the following results for the time at 25% stream depletion:

R.J. Ralls	
	well #1 7.24 days
	well #2 1.18-1.61 days
WRD	
	well #1 0.71-9.13 days
	well #2 0.23-2.93 days

All these values are well within the guidelines outlined in the rules which refer to the 25% depletion within 30 days of pumping (with respect to substantial interference). Ralls' hydrogeological report was very informative and it presented a lot of valid data, yet, there was nothing in the report to suggest that no hydraulic connection was occurring and that there was not a potential for substantial interference. Due to the proximity of the wells to the creek and the aquifer characteristics gained from the Ralls geological report, I think it is accurate to assume both hydraulic connection to Conner Creek and that the potential for substantial interference exists.

P. 02

	Stream	Location	Sec	G.H.	W	A	Q	A.T.	W.T.	Remarks
05-27-89	South Outlet of Croft Lake Trib. to New River	75' south of power line	NE 1/4 Sec 10 T30S R15W	—	2.25	0.89	0.37	—	—	Taken after rain storm
08-23-89	South Outlet of Croft Lake Trib to New River	" "	NE 1/4 SW 1/4 NE 1/4 Sec 15, T30S R15W	—	1.00	0.18	2.04	59°	70°	Intermittent for 2 days
05-25-89	N. Outlet of Croft Lake Trib. to New River	20' below the dam	NE 1/4 Sec 10 SE 1/4 Sec 10 T30S R15W	—	7.50	3.91	5.72	—	—	Taken after RAIN STORM
05-27-89	N. Outlet of Croft Lake Trib to New River	" "	NE 1/4 SE 1/4 SE 1/4 Sec 10 T30S R15W	—	7.50	4.13	5.50	—	—	
07-17-89	" " " "	" " " "	" " " "	—	7.00	2.47	1.63	65°	60°	
08-23-89	" " " "	" " " "	" " " "	—	6.50	2.41	1.57	59°	69°	Had 2 days intermittent R
09-27-89	" " " "	" " " "	" " " "	—	6.00	1.72	0.36	61°	65°	
05-25-89	Conner Cr. Trib. to Davis Cr.	1/2 mi above the power line/Davis Cr.	NE 1/4 Sec 10 T30S R15W	—	2.00	1.37	3.23	—	—	Taken after RAIN STORM
07-17-89	" " " "	" " " "	NW 1/4 NW 1/4 NE 1/4 Sec 14 T30S R15W	—	5.25	1.65	0.71	71°	64°	
08-23-89	" " " "	" " " "	" " " "	—	3.00	2.36	0.66	64°	62°	Had 2 days intermittent
09-29-89	" " " "	" " " "	" " " "	—	3.00	2.91	0.49	61°	63°	
05-25-89	Davis Cr. Trib. to Croft Lake	Above the power line	NW 1/4 R 15W NE 1/4 Sec 14 T30S R15W	—	7.00	1.78	1.70	—	—	Taken after rain storm
07-17-89	DAVIS Cr	" " " "	NW 1/4 NW 1/4 NE 1/4 Sec 14 T30S R15W	—	7.00	1.66	0.76	71°	62°	
08-23-89	" " " "	" " " "	" " " "	—	7.00	1.26	0.73	64°	63°	Had 2 days intermittent
09-27-89	" " " "	" " " "	" " " "	—	5.50	1.03	0.30	61°	63°	
05-27-89	Unnamed stream, trib to Croft Lake	" " " "	NE 1/4 Sec 10 SE 1/4 Sec 10 T30S R15W	—	1.50	0.50	0.28	—	—	Taken after rain storm
07-17-89	UNIND Stream, trib to " " " "	" " " "	NE 1/4 SE 1/4 SE 1/4 Sec 10 T30S R15W	—	1.55	0.32	0.69	65°	61°	
08-23-89	" " " "	" " " "	" " " "	—	1.25	0.21	0.06	59°	67°	
07-17-89	Conner Cr. Trib. to Davis Cr.	45' below Spence Rd Sec 11	NE 1/4 Sec 11 SE 1/4 Sec 11 T30S R15W	—	3.75	4.70	1.00	60°	64°	Measure taken above more meas. section Conner Cr.

DEC-10-91 TUE 8:58

FAX TRANSMISSION COVER SHEET
COOS COUNTY ANNEX

DATE: 12-10-91

TIME: 0856

TO:

Donn Miller

Name

OWRD

Organization

378-8130

FAX Number

FROM:

J. P. Drolet

Name

Watermaster

Department

Coos County Annex
Coquille, Ore. 97423

503-396-2690
FAX Number

Number of pages 2 (including this cover sheet)

Description of
Transmittal:
Attached

Harry Spencer asked that I FAX the

Please call (503) 396-3121 ext. 254 if transmittal is incomplete or unreadable.

December 12, 1991

INTER-OFFICE MEMO

TO: Tom Shook

FROM: E. George Robison

Subject: Flows for Davis Cr. basin

Here are the flows for the Davis Cr. basin. I gave you flows derived from both the model and from basin ratios with nearby Ferry Cr. near Bandon. I recommend that you use the model flows because the Ferry Cr. data was based on data taken during the 1976-77 season and then extended out. While the extension gets rid of the drought effect in general, I think the distribution of flows generated from it was flattened somewhat by the drought.

Flow evaluation for Davis and Conner Cr. South Coast Basin
Streamflows in 50% Exceedence Mean monthly flows CFS

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Davis Mod.	23.9	20.3	17.2	11.2	5.6	5.3	3.3	2.4	2.5	3.9	10.3	28.2
Davis Rat.	15.2	14.1	12.8	10.2	6.9	4.0	2.5	2.0	2.3	3.8	10.4	17.1
Conn. Mod.	8.2	6.8	5.8	3.9	1.9	1.6	1.0	0.7	0.7	1.3	3.6	10.0
Conn. Rat.	5.4	5.0	4.6	3.6	2.4	1.4	0.9	0.7	0.8	1.4	3.7	6.1

cc Fred Lissner
Barry Norris
Steve Applegate

STATE OF OREGON
WATER RESOURCES DEPARTMENT

INTEROFFICE MEMO

To: FILE

Date: October 6, 1992

From: MICHAEL ZWART^{MJZ}

Subject: APPLICATION G-12685, HARRY SPENCER

Geologist Russell Ralls prepared a report, dated August 18, 1992, in support of this application. A copy was hand delivered to me by Kip Lombard at the August 28th Commission meeting. The principal conclusion of the report is that Conner Creek and its associated marsh are part of a perched water table which is separated from the marine terrace deposits developed by the applicant's wells. A review of the report prompted Donn Miller and me to review the file and earlier reports by Mr. Ralls, giving particular emphasis to the aquifer tests conducted at the two wells.

Mr. Ralls concludes in this latest report that Conner Creek and its marsh are perched on a layer of "ball clay." He believes that the clay acts as a confining bed for underlying confined aquifers that are actually in better hydraulic connection with the marine terrace deposits developed by the subject wells. He bases this conclusion on the prevalence of the clay encountered in many of the test borings and the deeper test well, and on one water level measurement in the deeper test well which indicated a lower head than Conner Creek for those confined aquifers.

I disagree with those conclusions. The aquifer developed by the subject wells is a water-table (unconfined) aquifer. This is supported by the aquifer tests covered in the earlier reports. The water levels in the wells has a higher head than Conner Creek, indicating a groundwater gradient toward the creek. Therefore, Conner Creek is likely in hydraulic connection with, and is a discharge area for, this water-table aquifer. The local presence of a clay layer, which appears to vary in thickness, may result in local steepening of the gradient and in a generally poor hydraulic connection with the creek. If the deeper confined aquifers encountered in the test well were actually hydraulically isolated from the creek, I would have expected the confined water level to have a higher head than the creek, resulting in a much lower groundwater gradient between the test well and the subject wells than is indicated in the cross-section in the report. I believe that the final water level reported for the test well may be depressed due to insufficient time (30 minutes) for the water level to equilibrate prior to measurement.

The aquifer test data were analysed to attempt to confirm or deny the presence of a recharge response. The data were not ideal for this purpose. In particular, the lack of any pre-test water level data and minimal water level recovery data required certain assumptions to be made regarding the test conditions. However, analysis of the drawdown data does not indicate that the wells are subject to a recharge response, at least during the first four days of pumping. Therefore, on this basis, it is tentatively concluded that the proposed use of groundwater may

Michael Zwart

October 6, 1992

Page 2

have low potential for substantial interference with Conner Creek, despite the fact that the wells develop a water-table aquifer that is hydraulically connected to it. A superseding review form is included with this memo. Permit condition 4I is recommended.

The three reports prepared by Mr. Ralls were based on work performed by him in support of his client's application. In the case of the earlier two reports, no communication with the Groundwater/Hydrology Section took place prior to his work. Had this occurred, it would likely have resulted in additional data being collected, allowing additional analyses to better verify the lack of a recharge response at the wells. Prior to undertaking such work on their own, it is recommended that applicants confer with staff hydrogeologists regarding the types of additional information that could be provided to attempt to rebut the presumption of hydraulic connection and/or the potential for substantial interference.

STATE OF OREGON
WATER RESOURCES DEPARTMENT

INTEROFFICE MEMO

To: CAROL SPENCE

Date: February 16, 1993

From: MIKE ZWART *MJZ*

Subject: APPLICATIONS G-12701, G-12705, G-12655 and G-12685

As you indicated, these applications are in the same general area, yet they received different reviews pursuant to the Division 9 rules. The Harry Spencer application (G-12685) received the only "favorable" review. This review was changed from an earlier unfavorable review on the basis of aquifer test data that indicated that the proposed use may have low potential for interference with Conner Creek. This was, however, a tentative conclusion, and strong permit conditions were suggested. It is likely that the aquifer developed is both unconfined and hydraulically connected to Conner Creek here, and elsewhere in the vicinity.

All determinations regarding the potential for substantial interference with surface water are rebuttable, and Mr. Spencer provided sufficient evidence to rebut the earlier determination. These data (Mr. Spencer's) do not bear on the other applications, however. Such data, if provided by the other applicants, may or may not rebut the determinations made. The other applicants in this case have not provided any additional data to support their applications. Fred Lissner has, since the time of these reviews, made an effort to have the same hydrogeologist review applications in the same area as a way of ensuring consistency.

STATE OF OREGON
WATER RESOURCES DEPARTMENT

INTEROFFICE MEMO

To: STEVE BROWN

Date: August 22, 1994

From: MIKE ZWART *MZ*

Subject: HARRY SPENCER STAFF REPORT INSERT

Fred has asked that I write a paragraph or so about the reason the Division 9 review which I did reversed an earlier one done by Sarah Gates.

The applicant retained the services of Russell J. Ralls, a Registered Professional Geologist (G-934) to assist in his efforts to obtain a permit. Mr. Ralls prepared three separate reports for the applicant. The first two, dated September and October 1991, detail the results of aquifer tests at each of the applicant's two wells. A third report, dated August 1992, made the conclusion that the nearby surface water source, Conner Creek, is perched on a layer of clay, and therefore not hydraulically connected with the aquifer penetrated by the applicant's wells. Groundwater/Hydrology Section staff did not agree with that conclusion. However, staff analysed the data provided in the earlier reports to determine whether those data indicated the presence of a recharge boundary. The data were not ideal for such an analysis, but did not indicate a clear recharge response after four to five days of continuous pumping. On this basis, it was tentatively concluded that the wells may have low potential for substantial interference with Conner Creek. Since this conclusion was tentative, resource protection permit condition 4I was recommended on the review form and cover memo.

DETAILED REPORT ON WATER AVAILABILITY

Basin: South Coast
 Stream: DAVIS CR > CROFT L
 Water Availability Subbasin: 5008000000000000
 Exceedance Level: 50
 Time: 11:22

Date: 05/02/1994

Month	Natural Stream Flow	CU + Stor Prior to 1/1/93	Water Available 1/1/93	CU + Stor After 1/1/93	Net Minimum Flow	Instream Water Rights	Net Water Available
1	28.10	5.40	22.70	.08	22.60	.00	22.60
2	31.10	5.50	25.60	.09	25.50	.00	25.50
3	26.70	5.10	21.60	.07	21.50	.00	21.50
4	13.10	5.17	7.93	.03	7.90	.00	7.90
5	5.41	5.32	.09	.00	.09	.00	.09
6	6.14	5.67	.47	.00	.47	.00	.47
7	4.71	5.97	-1.26	.00	-1.26	.00	-1.26
8	3.15	5.81	-2.66	.00	-2.66	.00	-2.66
9	2.26	5.42	-3.16	.00	-3.16	.00	-3.16
10	2.89	5.17	-2.28	.00	-2.28	.00	-2.28
11	14.70	5.28	9.42	.03	9.39	.00	9.39
12	30.70	5.40	25.30	.08	25.20	.00	25.20
Stor	10100	2570	6770	23	6750	0	6750

STATE OF OREGON
WATER WELL REPORT
(as required by ORS 537.765)

Well No. 39
near house well

T30S/R15W/11
16053

(START CARD)

(1) OWNER: HARRY SPENCER Well Number: 39
Name: GROWTH UNLIMITED TREE FARM
Address: P.O. BOX 291
City: LANGLOIS State: OR Zip: 97450

(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 57'2"
Explosives used Yes No Type _____ Amount _____

HOLE		SEAL		Amount sacks or pounds
Diameter	From To	Material	From To	
10"	0 18	CEMENT	0 18	800#
6"	18 58			

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
6"	4'	37'11"	.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: _____

Final location of shoe(s) _____

(7) PERFORATIONS/SCREENS:
 Perforations Method TELESCOPE
 Screens Type JOHNSON Material STAINLESS STEEL

From	To	Slot size	Number	Diameter	Tele/pipe size	Casing	Liner
38'10"	44'9"	.015			6"	<input type="checkbox"/>	<input type="checkbox"/>
44'9"	50'4"	.012			6"	<input type="checkbox"/>	<input type="checkbox"/>
50'4"	55'3 1/2"	.010			6"	<input type="checkbox"/>	<input type="checkbox"/>
55'3 1/2"	57'2"				5"	<input checked="" type="checkbox"/>	<input type="checkbox"/>

(8) WELL TESTS: Minimum testing time is 1 hour
 Pump Bailer Air Flowing Artesian
Yield gal/min: 42 Drawdown: 6'9" Drill stem at: @ 53' Time: 1 hr.

Temperature of water: 52° 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: COOS Latitude: _____ Longitude: _____
Township: 30 S Nor S Range: 15 W E or W, WM
Section: 11 SE SE
Tax Lot: 1600 Lot: _____ Block: _____ Subdivision: _____
Street Address of Well (or nearest address): CROFT ROAD
OFF OF 101 SOUTH

(10) STATIC WATER LEVEL:
25'6" ft. below land surface Date: 3/13/90
Artesian pressure _____ lb. per square inch Date: _____

(11) WATER BEARING ZONES:
Depth at which water was first found: 25'

From	To	Estimated Flow Rate	SW
23'	35'	80	25

(12) WELL LOG: Ground elevation: 230'

Material	From	To	SW
CLAY BROWN	0	6'	
SAND w/ GRAVEL BROWN	6'	18'	
GRAVEL w/ SAND, MED. BROWN	18'	20'	
GRAVEL w/ SAND, MED. GRAY	20'	23'	
GRAVEL w/ SAND, MED. RED	23'	24'	25
SAND w/ GRAVEL FINE BROWN	24'	28'	
CLAY w/ SAND BROWN	28'	30'	
SAND w/ GRAVEL FINE BROWN	30'	45'	
GRAVEL w/ SAND, MED. BROWN	45'	50'	
SAND, MED. BROWN	50'	56'	
CLAY GRAY	56'	57'	

Application No. 6-12685
Permit No. _____

Date started: 3/12/90 Completed: 3/20/90

(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: _____ 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. 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: Jim Mack WWC Number: 149 Date: 3/20/90

STATE OF OREGON
WATER WELL REPORT
(as required by ORS 537.765)

RECEIVED

T305/R15W/11
OCT - 3 1991 (SHORT CARD) # 26375

(1) OWNER: Wells 2
Name Herry Spomer / Growth Unlimited
Address _____
City _____ State _____ Zip _____

WATER RESOURCES DEPT. by legal description:
SALEM, OREGON
Township 305 Nor or S; Range 15 W E or W, WM.
Section 11 SE SE SE

(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 58-1/2
Explosives used: Type _____ Amount _____

HOLE

Diameter	From	To	Material	From	To	Amount
10"	0"	25'	Bentonite	0"	25'	1300#

How was seal placed: Method A B C D E
 Other Introduced from surface
Backfill placed from _____ ft. to _____ ft. Material _____
Gravel placed from _____ ft. to _____ ft. Size of gravel _____

(6) CASING/LINER:

Casing	Diameter	From	To	Gauge	Material			
					Steel	Plastic	Welded	Threaded
	6"	+18"	38 1/2'	.250	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

(7) PERFORATIONS/SCREENS:
 Perforations Method Telescope
 Screens Type Johnson Material Stainless Steel

From	To	Slot size	Number	Diameter	Tele/pipe size	Casing	Liner
37' 1/2"	43' 7/8"	.016		6"	Tele	<input type="checkbox"/>	<input type="checkbox"/>
43' 7/8"	48' 1/2"	.012		6"	Tele	<input type="checkbox"/>	<input type="checkbox"/>
48' 1/2"	54' 1/2"	.014		6"	Tele	<input type="checkbox"/>	<input type="checkbox"/>
54' 1/2"	58' 1/2"			5"	5" Pipe	<input checked="" type="checkbox"/>	<input type="checkbox"/>

(8) WELL TESTS: Minimum testing time is 1 hour
 Pump Bailer Air Flowing Artesian
Yield gal/min 40 Drawdown 11' for 4 hrs Drill stem at 55' Time 1 hr.

Temperature of water 50' 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: _____

(10) STATIC WATER LEVEL:
Date 8/30/91
Artesian pressure _____ lb. per square inch Date _____

(11) WATER BEARING ZONES:
Depth at which water was first found 31'

From	To	Estimated Flow Rate	SWL
0'	31'	40 GPM	31'

(12) WELL LOG:

Material	From	To	SWL
Surface clay	0'	15'	15'
Clay w/ sand	15'	16'	16'
Clay w/ old brick	16'	22'	22'
Sand brick	22'	26'	26'
Sand w/ clay + gravel	26'	30'	30'
Sand gravel medium	30'	36'	31'
Sand w/ gravel brick courses	36'	42'	31'
Clay w/ gravel	42'	48'	31'
Marlstone	48'	58'	31'

(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 John S. Sater II Date 9/26/91

(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 John Mack WWC Number 1492
Date 9/26/91

Certificate of Service

I certify that on this 1st day of December, 1994, a copy of WaterWatch's Petition for Reconsideration for Permit G-11826 (Application G-12685) was served on each of the following by first class mail, postage paid, in the United States Mail from Portland, Oregon, enclosed in a sealed envelope and addressed as follows:

Kip Lombard
Attorney for Harry G. Spencer
P.O. Box 1090
Ashland, OR 97520

Martha Pagel, Director
Water Resources Department
158 12th Street NE
Salem, OR 97310

Cliff S. Bentz, Vice Chair
Water Resources Commission
Yturri, Rose, Burnham, Ebert & Bentz
P.O. Box S
Ontario, OR 97914

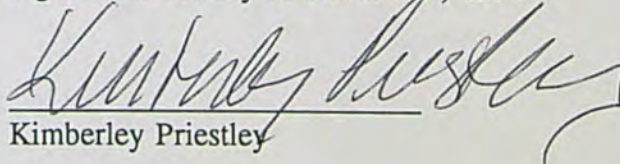
John L. Frewing
Water Resources Commission
Portland General Electric
121 SW Salmon
Portland, OR 97204

Anita Johnson
Water Resources Commission
2288 Birch Lane
Eugene, OR 97403

Nancy E. Leonard
Water Resources Commission
225 W. Olive Room 110
Newport, OR 97365

Michael Jewett
Water Resources Commission
353 Ridge Road
Ashland, OR 97520

Signed this 1st day of December, 1994


Kimberley Priestley

Application No. G - 12685
 Permit No.

TOWNSHIP 30 S RANGE 15 W W. M. card # 7 SECTION 11

NE				NW				SW				SE				APPLICATION NUMBER	PERMIT NUMBER	CERTIFICATE NUMBER
NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE			
TOTAL ACREAGE IN SUBDIVISION AS SHOWN ON GOVERNMENT PLAT																Lot 1 Lot 2 1410 3680		
Cancelled - sp. or Rec. Vol. <u>3</u> P. <u>296</u> 2.85																5900 V32 P.475 22601 17826 21900		
Cancelled - sp. or Rec. Vol. <u>3</u> P. <u>296</u> 2.85																22723 18029 21453		
Cancelled - sp. or Rec. Vol. <u>3</u> P. <u>296</u> 2.85																43469 32513 36979		
Cancelled - sp. or Rec. Vol. <u>3</u> P. <u>296</u> 2.85																G-5063 G-4773 47690		
Cancelled - sp. or Rec. Vol. <u>3</u> P. <u>296</u> 2.85																G-5375 G-4959 48708		
Cancelled - sp. or Rec. Vol. <u>3</u> P. <u>296</u> 2.85																G-6739 G-6265 47789		
Cancelled - sp. or Rec. Vol. <u>3</u> P. <u>296</u> 2.85																52603 39179 47790		
Cancelled - sp. or Rec. Vol. <u>3</u> P. <u>297</u> 2.85																R-52601 R-6381 50352		
Cancelled - sp. or Rec. Vol. <u>3</u> P. <u>297</u> 2.85																Supplemental 51718 52602 39820 50353		
Cancelled - sp. or Rec. Vol. <u>3</u> P. <u>297</u> 2.85																52602 39820 51718		
Cancelled - sp. or Rec. Vol. <u>3</u> P. <u>297</u> 2.85																G-9183 G-8626		

(SEE BACK OF CARD FOR PLAT OF SECTION)

TOWNSHIP 30 S RANGE 15 W W. M. card # 2 SECTION 11

NE				NW				SW				SE				APPLICATION NUMBER	PERMIT NUMBER	CERTIFICATE NUMBER
NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE			
ACREAGE IN LOT OR LEGAL SUBDIVISION AS SHOWN ON GOVERNMENT PLAT. IF OTHER THAN 40 ACRES																		
Cancelled - sp. or Rec. Vol. <u>3</u> P. <u>297</u> 2.85																R-61485 R-8453		
Cancelled - sp. or Rec. Vol. <u>3</u> P. <u>297</u> 2.85																R-61496 46813		
Cancelled - sp. or Rec. Vol. <u>3</u> P. <u>297</u> 2.85																R-63735 R-8662		
Cancelled - sp. or Rec. Vol. <u>3</u> P. <u>297</u> 2.85																63744 47592		
Cancelled - sp. or Rec. Vol. <u>3</u> P. <u>297</u> 2.85																G-10769 G-10000 CANCELLED		
Cancelled - sp. or Rec. Vol. <u>3</u> P. <u>297</u> 2.85																G-11280 610450		
Cancelled - sp. or Rec. Vol. <u>3</u> P. <u>297</u> 2.85																69280		
Cancelled - sp. or Rec. Vol. <u>3</u> P. <u>297</u> 2.85																69631 50603		
Cancelled - sp. or Rec. Vol. <u>3</u> P. <u>297</u> 2.85																R-69883 R-11203		
Cancelled - sp. or Rec. Vol. <u>3</u> P. <u>297</u> 2.85																69884 50948		
Cancelled - sp. or Rec. Vol. <u>3</u> P. <u>297</u> 2.85																R-70188 R-11245		
Cancelled - sp. or Rec. Vol. <u>3</u> P. <u>297</u> 2.85																70189 51064		
Cancelled - sp. or Rec. Vol. <u>3</u> P. <u>297</u> 2.85																120 G-12685		

Receipt for Request for Land Use Information .

WRD Applicant Name: X Harry P. Spencer

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: Coos

Staff Contact: Planning Technician Phone: 396-3121, X212

Signature: Shila Wilson Date of Information Request: 9/30/91

Application No. 6-12685

Permit No.

RECEIVED

OCT - 3 1991

I certify that the information I have provided in Application
6-12685 is an accurate representation of the proposed water
use and is true and correct to the best of my knowledge.

Harry D. Spencer
Signature of Applicant

September 9, 1994
Date

Kennedy
Take to MOP
Issued

<u>DATE</u>	<u>INITIALS</u>	<u>MINIMUM REQUIREMENTS TO FILE</u>
_____	_____	Name and mailing address
_____	_____	Source of water
_____	_____	Quantity of water
_____	_____	Location of project
_____	_____	Use of water
_____	_____	Name and address of all owners
_____	_____	Signature of applicant
_____	_____	Allowable use by policy
_____	_____	State Engineer withdrawal
_____	_____	Legislative withdrawal
_____	_____	Examination fee
_____	200	Land use approved _____ pending _____
_____	OK	Application date stamped, received date and time

FIELD OPERATIONS

_____	_____	Stream code _____
_____	_____	Scenic Waterway _____
_____	_____	Findings made
_____	_____	Prepare six copies of Draft Permit
_____	_____	NOTE: If Diack findings are complete write "SCENIC-REG ACK LETTER" or if Diack findings are not yet made write "SCENIC-ACK LETTER" on appropriate drafts in upper right corner
_____	_____	Send one copy to Data Center
_____	_____	Entered in Paradox
_____	_____	Plat Carded
_____	_____	Stream Indexed YES NO
_____	_____	Conflicts _____ Y
_____	_____	Prior ISWR _____ Y

SUPPORT SERVICES

10/15	CZ	Stamp contents with application number
_____	_____	Mail/Provide copies of draft permits to DEQ, ODFW, PARKS, AND WATERMASTER
_____	_____	Mail acknowledgement letter (provided by Data Center) with receipt to applicant, cc to CWRE
_____	_____	Place label on file and card
_____	_____	If reservoir with dam is over 10 feet or storage over 9.2 AC-FT, route file to Dam Safety Section.

FIELD OPERATIONS

_____	W	Within Irrigation District _____ (name)
_____	_____	YES NO
_____	_____	Notified _____
_____	_____	District excerpt received _____
_____	_____	Other landowners notified ✓ _____
_____	NO	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 _____
_____	MS	ODFW comments received _____
_____	W	DEQ comments received _____
_____	_____	Water availability received _____
_____	MS	Objections received _____
_____	_____	Objections resolved _____
_____	_____	Protested - Resolved _____
_____	_____	Permit Recording fees _____

REMARKS:

GROUND WATER REPORT : HYDRAULIC CONNECTION & SUBSTANTIAL INTERFERENCE - W.A. REPORT OK See PRINT OUT

12/1/16
 No public construction

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

RECEIVED
OCT - 3 1991

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: Harry G. Spencer
 Address: P. O. Box 291
 City: Langlois State: OR Zip: 97450 Day Phone: 503/347-4114

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 (e.g. Rural Residential/RR-5)	Check All That Apply		
		Water Diverted	Water Conveyed	Water Use
13644.00	30-15-11 1600 "F"	x	x	x
13657.00	30-15-13 100 "F"		x	x
13657.04	30-15-13 103 "F"		x	
			?	
13652.06	30-15-12 1501 "EFU"		x	
13652.00	30-15-12 1500 "EFU"		x	
13652.90			x	

Coos County, Oregon

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 Land Use Approvals Needed (e.g.: plan amendments, rezones, conditional use permits, etc.)	Cite Most Significant, Applicable Plan Policies & Ordinance Section References	Please check the box that applies:		
		Already Obtained	Already Denied	Being Pursued Satisfactorily

(over)

Receipt for Request for Land Use Information

WRD Applicant Name: X Harry G. Spencer

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: Coos
 Staff Contact: Planning Technician Phone: 396-3121, X210
 Signature: Sheila Wilson Date of Information Request: 9/30/91

August 7, 1995

Harry G. Spencer
P.O. Box 291
Langlois, OR 97450

Reference: File G-12685, Permit No. G-11826

Dear Mr. Spencer:

This letter is to confirm the Department's position in regards to errors contained in Permit No. G-11826. These errors will be properly corrected in any certificate issued confirming the use of water perfected under the terms of the permit.

The location of the wells are described as being within the SE 1/4 SE 1/4, Section 1. The proper location of the wells should be described within the SE 1/4 SE 1/4, Section 11.

The location of the place of use includes a description allowing the use of water for 10.0 acres of cranberry operations and 4.0 acres of nursery operations in the SE 1/4 SE 1/4, Section 12. The proper location of the place of use should be described within the SE 1/4 SE 1/4, Section 11.

On page two, the last sentence of the paragraph that starts with the words "The wells shall be constructed.....", should be deleted. This sentence is inconsistent with the measurement, recording and reporting conditions.

Finally, the reference to Application G-12692 and G-12692.SB located at the lower left corner of page two should be G-12685 and G-12685.SB.

If you have any questions, please feel free to contact me and I would be happy to address any concerns you may have.

Sincerely,

Steve Brown
Program Analyst
Water Rights Division

cc: John Drolet, Watermaster
1362



Commerce Building
158 12th Street NE
Salem, OR 97310-0210
(503) 378-3739
FAX (503) 378-8130

STATE OF OREGON
WATER RESOURCES DEPARTMENT

INTEROFFICE MEMO

To: STEVE BROWN

Date: August 22, 1994

From: MIKE ZWART *MJZ*

Subject: HARRY SPENCER STAFF REPORT INSERT

Fred has asked that I write a paragraph or so about the reason the Division 9 review which I did reversed an earlier one done by Sarah Gates.

The applicant retained the services of Russell J. Ralls, a Registered Professional Geologist (G-934) to assist in his efforts to obtain a permit. Mr. Ralls prepared three separate reports for the applicant. The first two, dated September and October 1991, detail the results of aquifer tests at each of the applicant's two wells. A third report, dated August 1992, made the conclusion that the nearby surface water source, Conner Creek, is perched on a layer of clay, and therefore not hydraulically connected with the aquifer penetrated by the applicant's wells. Groundwater/Hydrology Section staff did not agree with that conclusion. However, staff analysed the data provided in the earlier reports to determine whether those data indicated the presence of a recharge boundary. The data were not ideal for such an analysis, but did not indicate a clear recharge response after four to five days of continuous pumping. On this basis, it was tentatively concluded that the wells may have low potential for substantial interference with Conner Creek. Since this conclusion was tentative, resource protection permit condition 4I was recommended on the review form and cover memo.

STATE OF OREGON
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DETAILED REPORT ON WATER AVAILABILITY

Basin: South Coast

Stream: DAVIS CR

> CROFT L

Water Availability Subbasin: 5008000000000000

Exceedance Level: 50

Time: 11:22

Date: 05/02/1994

Month	Natural Stream Flow	CU + Stor Prior to 1/1/93	Water Available 1/1/93	CU + Stor After 1/1/93	Net Minimum Flow	Instream Water Rights	Net Water Available
1	28.10	5.40	22.70	.08	22.60	.00	22.60
2	31.10	5.50	25.60	.09	25.50	.00	25.50
3	26.70	5.10	21.60	.07	21.50	.00	21.50
4	13.10	5.17	7.93	.03	7.90	.00	7.90
5	5.41	5.32	.09	.00	.09	.00	.09
6	6.14	5.67	.47	.00	.47	.00	.47
7	4.71	5.97	-1.26	.00	-1.26	.00	-1.26
8	3.15	5.81	-2.66	.00	-2.66	.00	-2.66
9	2.26	5.42	-3.16	.00	-3.16	.00	-3.16
10	2.89	5.17	-2.28	.00	-2.28	.00	-2.28
11	14.70	5.28	9.42	.03	9.39	.00	9.39
12	30.70	5.40	25.30	.08	25.20	.00	25.20
Stor	10100	2570	6770	23	6750	0	6750

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4	13.10	5.17	7.93	.03	7.90	.00	7.90
5	5.41	5.32	.09	.00	.09	.00	.09
6	6.14	5.67	.47	.00	.47	.00	.47
7	4.71	5.97	-1.26	.00	-1.26	.00	-1.26
8	3.15	5.81	-2.66	.00	-2.66	.00	-2.66
9	2.26	5.42	-3.16	.00	-3.16	.00	-3.16
10	2.89	5.17	-2.28	.00	-2.28	.00	-2.28
11	14.70	5.28	9.42	.03	9.39	.00	9.39
12	30.70	5.40	25.30	.08	25.20	.00	25.20
Stor	10100	2570	6770	23	6750	0	6750

STATE OF OREGON
WATER RESOURCES DEPARTMENT

INTEROFFICE MEMO

To: CAROL SPENCE

Date: February 16, 1993

From: MIKE ZWART *MJZ*

Subject: APPLICATIONS G-12701, G-12705, G-12655 and G-12685

As you indicated, these applications are in the same general area, yet they received different reviews pursuant to the Division 9 rules. The Harry Spencer application (G-12685) received the only "favorable" review. This review was changed from an earlier unfavorable review on the basis of aquifer test data that indicated that the proposed use may have low potential for interference with Conner Creek. This was, however, a tentative conclusion, and strong permit conditions were suggested. It is likely that the aquifer developed is both unconfined and hydraulically connected to Conner Creek here, and elsewhere in the vicinity.

All determinations regarding the potential for substantial interference with surface water are rebuttable, and Mr. Spencer provided sufficient evidence to rebut the earlier determination. These data (Mr. Spencer's) do not bear on the other applications, however. Such data, if provided by the other applicants, may or may not rebut the determinations made. The other applicants in this case have not provided any additional data to support their applications. Fred Lissner has, since the time of these reviews, made an effort to have the same hydrogeologist review applications in the same area as a way of ensuring consistency.

MEMORANDUM

TO: LAURIE BETH ENGLISH

FROM: STEVE BROWN

RE: Application G-12685 - Harry G. Spencer

Staff have reviewed the above referenced application for permit.

A draft permit was signed by Mr. Spencer on January 1, 1992.

On October 6, 1992, a memo from groundwater section, requested an additional condition be placed upon the permit to further clarify the Department's position in regards to the potential for interference of surface water. The condition reads:

If substantial interference with a senior water right occurs due to withdrawal of water from any well listed on this permit, then use of water from the well(s) shall be discontinued or reduced and/or the schedule of withdrawal shall be regulated until or unless the Department approves or implements an alternative administrative action to mitigate the interference. The Department encourages junior and senior appropriators to jointly develop plans to mitigate interferences.

There are no parties that have submitted comments in regards to this specific application. There have been concerns raised objecting to the additional use of surface water in this stream basin.

Staff have placed the application in line to announce a technical review. This technical review would only be announced to the applicant.

Please check with Reed. It may be possible to issue a permit without additional delay.

0270

R. J. RALLS - GEOLOGIST

P.O. Box 389 — 15693 Ocean View Dr.
Brookings, Oregon 97415

Phone
(503) 469-6053

October 7, 1991

Mr. Harry Spencer
Growth Unlimited Nursery Inc.
P. O. Box 291
Langlois, OR, 97450

Dear Mr. Spencer:

Last Friday, October 4, 1991, we discussed over the telephone the subject of drilling additional water wells in the areas of your property located in SE $\frac{1}{4}$ SE $\frac{1}{4}$ Sec. 11, T. 30 S., R. 15 W., W.&M., Coos County, Oregon.

Your question was "Can additional wells be drilled nearby to the existing wells subject in my reports of September 10, 1991 and October 5, 1991, respectively, and not interact or influence Conner Creek, and also where would I recommend such new production wells?"

To answer your question, yes I do believe that the aquifer in the two wells subject in the September 10, and October 5, 1991, report, can be additionally pumped without hydrogeologic connection with Conner Creek. In such case, I also believe that the Hydrogeologic constants derived from the pump tests with respect to the two subject wells, can be applied to additional wells nearby respectively. It is recommended however, additional wells where nearby to the two existing wells be located at least 400 feet away from closest approach to Conner Creek and also be at least 100 feet distance from any other production well or sump. If a new well is planned for closer approach to Conner Creek within 400 feet, we recommend new pump tests be conducted as was done in the September 10, and October 5, 1991, reports. In addition, if more than two new wells are planned nearby to the Spencer#1 well subject in the September 10, 1991 report, or more than one new well nearby to the SE corner Section 11 well subject in the October 5, 1991, report, then we also recommend pump test to be done accordingly.

If you wish our assistance in locating or respectively addressing new wells, we would be pleased to accommodate.

Yours Truly,

Russell J. Ralls —

Russell J. Ralls
PG 934 Oregon

RECEIVED

OCT - 4 1991

WATER RESOURCES DEPT.
SALEM, OREGON

Application No. 6-12685

State of Oregon
WATER RESOURCES DEPARTMENT

Application for a Permit to Appropriate Ground Water

Applicant(s) Harry G. Spencer
(Please print or type - use dark ink)

Mailing Address: P. O. Box 291
Langlois Oregon 97450 503/347-4114
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.): two wells
- _____
- _____

If development is less than one mile from a natural stream, give the following:

Distance from development to stream: well #1 = 630 ft. well #2 = 520 ft.

Elevation difference between streambed and development: well #1 = 35 ft. well #2 = 40 ft.

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. See enclosed water well reports. See remarks as to well identification.

Diameter of well: _____ Depth in feet: _____

Type and size of well casing: _____ No. of feet: _____

Estimated depth to water: _____

Type of access port or measuring device: _____

Wells to be drilled by: _____

Address: _____

If the water well is flowing artesian, describe your water control and conservation works: _____

2. **TOTAL AMOUNT OF WATER** to be applied to beneficial use: 0.357 cubic feet per second, OR 160 gallons per minute. If water is to be used from more than one ground water source, give the quantity of water from each: being 0.178 cfs from well #1 and 0.178 cfs from well #2.

3. **INTENDED USE(s) OF WATER:** Cranberry use and nursery operations.

If for more than one use, give the quantity of water from each source for each use:

0.178 cfs from well #1 for cranberry use. 0.178 cfs from well #2, cranberry use.
0.008 cfs from well #1 for nursery operations. 0.10 cfs from well #2, nursery oper.

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.)

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 cranberry use: 12.0

Other (describe) nursery operations: 4.0

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).*

A submersible electric motor and pump with plastic pipe to the places of use.

Well #1 will deliver water directly to the 10.0 acres of cranberries, and 0.3 acres of nursery operations, or to in-system storage in the SW1/4 SW1/4, Section 11, then repumped to those places of use. Well #2 will do likewise, or pump directly to the 2.0 acres of cranberries in the NW1/4 NE1/4, Section 13, or to the adjacent in-system storage, then repumped to that place of use.

5. **PROJECT SCHEDULE:** *(List month and year)*

Proposed date construction work will begin Construction started

Proposed date construction work will be completed October 1, 1993

Proposed date water use will be completed October 1, 1997

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):

 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: Both wells have been drilled. Start card #16053 pertains to well #1, and start card #26375 pertains to well #2.

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.

 Harry D. Spencer
Signature of Applicant

 9/27/91
Date

Signature of Co-Applicant, if any

Date

FOR WATER RESOURCES DEPARTMENT USE ONLY

Dear Applicant:

I certify that I have examined the foregoing application, together with the accompanying information, and am returning it to you for:

In order to retain its tentative priority, this application must be returned with the requested corrections or additions on or before:

_____, 19____.

WITNESS my hand this _____ day of _____, 19____.

Water Resources Director

By: _____

This instrument was first received in the office of the Water Resources Director at Salem, Oregon, on the 4th day of Oct, 1990, at 8 o'clock, A M.

APPLICATION NO: G-12685

Pump Test Index Data:

pod_id 29773 user_id 26775 T / R - S QQ 30.00S. / 15.00W. - 13 NW NE.

owner_id county COOS

pod_status / cs SL 6 sub_div

pod_id_EM

test year 1995

action_date 6/29/1995

priority_lu 01/31/1985

verified year 1994

last_update 1/14/2000

status_lu V Transaction Status Pending

comments

cert_num 62388

pod num 1

upd

prev pod_id prev user_id

tax_lot

res_code

Owner-Supplied Data:

log id

comp depth

date drilled

well_name

Pump Test (Current) Owner:

name f/l HARRY G SPENCER owner_code O

contact_title

user_status

other

misc

street BOX 282

city/st/zip LANGLOIS OR 97450 last update 1/21/2000

ph/fax/email 5033474114

comment

WRIS Owner (from WRIS water-rights file):

HARRY G SPENCER

.....

PO BOX 291

LANGLOIS OR 97450

county COOS status V

WRIS pt.of.div Info:

priority	use	cat	pas	status	rate / div_units	duty / limit / other_limits	source_type	basin_num
01/31/1985	TC	1	P	V	.05	C	WE	17
01/31/1985	IS	3	S	V	.05	C 1/802.5		

Wris_logid Info:

logid

Owners Well Name

Max_Depth

Logid Comments

stream1_name A WELL

legal_desc 1190 FEET SOUTH & 2940 FEET EAST FROM NW CORNER, SECTION 13

Pump Test Index Data:

		<u>pod_id</u>	<u>user_id</u>	<u>T/R - S QQ</u> 30.00S / 15.00W - 11 SE SE	
<u>cir_appl</u> G	12685	36443	26775	<u>owner_id</u>	<u>county</u>
<u>pt_appl</u>		<u>prev pod_id</u>	<u>prev user_id</u>	<u>pod_status / cs</u>	<u>sub_div</u>
<u>permit</u> G	11826			<u>pod_id_EM</u>	<u>tax_lot</u>
<u>cert_num</u>	0			<u>test year</u>	<u>res_code</u>
<u>pod num</u>	1			<u>action_date</u>	Owner-Supplied Data:
<u>upd</u>				<u>priority_lu</u> 10/04/1991	<u>log id</u>
<u>status_lu</u>	V	<u>Transaction Status</u> <input type="checkbox"/> Pending		<u>verified year</u>	<u>comp depth</u>
<u>comments</u>				<u>last_update</u> 1/21/2000	<u>date drilled</u>
					<u>well_name</u>

Pump Test (Current) Owner:

<u>name f/l</u>	HARRY G	SPENCER	<u>owner_code</u>	O
<u>contact_title</u>			<u>user_status</u>	
<u>other</u>			<u>misc</u>	
<u>street</u>	BOX 282		<u>last</u>	
<u>city/st/zip</u>	LANGLOIS	OR	97450	<u>update</u> 1/21/2000
<u>ph/fax/email</u>	5033474114			
<u>comment</u>				

WRIS Owner (from WRIS water-rights file):

HARRY G	SPENCER
PO BOX 282	
LANGLOIS	OR 974500282
<u>county</u>	COOS <u>status</u> V

WRIS pt.of.div Info:

priority	use	cat	pas	status	rate / div	units	duty / limit	other_limits	source_type	WE	basin_num
10/04/1991	NU	1	A	V	.008	C	1/405.0	1/80 2.5 AF ANY OTHER CROP			17
10/04/1991	CR	1	P	V	.178	C	1/403.0	1/80 2.5 AF ANY OTHER CROP			17

Wris_logid Info:

<u>logid</u>		<u>Owners Well Name</u>	
<u>Max_Depth</u>		<u>Logid Comments</u>	
<u>stream1_name</u>	WELL 1		
<u>legal_desc</u>	103.0 FEET NORTH & 75.0 FEET WEST FROM SE CORNER, SECTION 11		

Pump Test Index Data:

<u>pod_id</u>	<u>user_id</u>	<u>T/R - S QQ</u> 30.00S / 15.00W - 11 SE SE	
<u>cir_appl</u> G 12685	36444	26775	<u>owner_id</u>
<u>pt_appl</u>	<u>prev pod_id</u>	<u>prev user_id</u>	<u>pod_status / cs</u>
<u>permit</u> G 11826	<input type="text"/>	<input type="text"/>	<u>pod_id_EM</u>
<u>cert_num</u> .....0	<input type="text"/>	<input type="text"/>	<u>test year</u>
<u>pod num</u> .....2	<input type="text"/>	<input type="text"/>	<u>action_date</u>
<u>upd</u>	<input type="text"/>	<input type="text"/>	<u>priority_lu</u> 10/04/1991
<u>status_lu</u> .....V	<u>Transaction Status</u> <input type="checkbox"/> Pending		<u>verified year</u>
<u>comments</u>			<u>last_update</u> 1/21/2000
			<u>log id</u>
			<u>comp depth</u>
			<u>date drilled</u>
			<u>well_name</u>

Pump Test (Current) Owner:

<u>name f/l</u>	HARRY G SPENCER	<u>owner_code</u>	O
<u>contact_title</u>	.....	<u>user_status</u>	.....
<u>other</u>	.....	<u>misc</u>	.....
<u>street</u>	BOX 282	<u>last</u>	
<u>city/st/zip</u>	LANGLOIS.....OR.....97450	<u>update</u>	1/21/2000
<u>ph/fax/email</u>	5033474114		
<u>comment</u>			

WRIS Owner (from WRIS water-rights file):

HARRY G	SPENCER
.....
PO BOX 282	
LANGLOIS.....OR.....97450	0282
<u>county</u>	COOS <u>status</u> .....V

WRIS pt.of.div Info:

priority	use	cat	pas	status	rate / div	units	duty / limit / other	limits	source_type	WE	basin_num
10/04/1991	NU	1	A	V	.1	C	1/405.0	1/80 2.5 AF	ANY OTHER CROP		17
10/04/1991	CR	1	P	V	.178	C	1/403.0	1/80 2.5 AF	ANY OTHER CROP		

Wris_logid Info:

<u>logid</u>	.....	<u>Owners Well Name</u>	.....
<u>Max_Depth</u>	.....	<u>Logid Comments</u>	.....
<u>stream1_name</u>	WELL_2		
<u>legal_desc</u>	5 FEET NORTH & 20 FEET WEST FROM SE CORNER, SECTION 11		

69631

G-12685

T-6454

Others: (Possible)

G-9494

G-11296

R-59563

59564

61757

68023

R-68151

68354

R-69883

69884

U.S. POSTAL SERVICE
PS FORM 3547

return
to sender

fee due 50¢

PENALTY FOR PRIVATE
USE TO AVOID PAYMENT
OF POSTAGE, \$300

Oregon WATER RESOURCES
DEPARTMENT

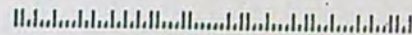
Commerce Building
158 12th Street NE
Salem, OR 97310-0210

Address Service Requested

HARRY G SPENCER
DBA GROWTH UNLIMITED TREE FARM
PO BOX 291
LANGLOIS, OR 97450

GROW291 974500016 1998 14 06/30/99
FORM 3547
:GROWTH UNLIMITED
PO BOX 291
LANGLOIS OR 97450-0291

AUTO 97450

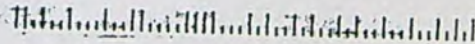


First-Class Mail
Postage & Fees Paid
USPS
Permit No. G-10

PRESORTED
FIRST CLASS



97310/3338



9/1/99

NEW ADDRESS:

Harry G. Spencer
DBA Growth Unlimited Tree Farm
PO Box 282
Langlois, OR 97450-0282

OLD ADDRESS:

Harry G. Spencer
DBA Growth Unlimited Tree Farm
PO Box 291
Langlois, OR 97450

<u>Application File</u>	<u>Permit No.</u>	<u>Certificate</u>
69631	50603	---
G-12685	G-11826	---
T-6454	R-8204	---
G-9494	G-9088	62387
G-11296	G-10489	62388
R-59563	R-8204	62381
59564	45328	62383
61757	46101	62384
68023	49345	62385
R-68151	R-10479	62382
68354	49429	62386
R-69883	R-11203	72449
69884	50948	72450

TECHNICAL REVIEW CHECKLIST

Application: G-12685

Review Date: 12/29/92 2/17/93 *2/17/93*

- OK indicates information was completed or adequately addressed.
- N indicates information is needed, or incomplete, or inadequately addressed
- N/A indicates Not Applicable

SUMMARY

- OK Completeness
- OK Land Use
- OK GW Interference (if potential interference with surface water, see results of water availability analysis)
- OK Conflicts
- OK Water Availability
- S or U Satisfactory or Unsatisfactory Conclusions based on information available on the review date above.

OK The applicant has certified that the information provided in the application is an accurate representation of the proposed use and is true and correct to the best of their knowledge.

OK No oath is required because application was filed before June 5, 1992.

OK Application fees:

Examination fee:	\$	<u>200</u> -
Recording fee:	\$	<u>200</u> -
TOTAL REQUIRED	\$	<u>400</u> -
TOTAL SUBMITTED	\$	<u>400</u> -
AMOUNT DUE prior to issuance of permit	\$	<u>0</u> -

OK

Proposed dates of beginning and completion of construction, and complete application of water.

OK

A satisfactory map of the proposed place of water use prepared by a certified water right examiner, unless exempt under OAR 690-14-150(3).

N/A

A CWRE map is not required for applications filed before November 9, 1987.

OK

A written copy of the legal description of the property on which the water is to be used.

OK

A copy of written authorization, contract or easement permitting access to the land or reservoir not owned by the applicant.

OK

No statement of ownership was required for applications filed before August, 1990.

N/A

The report from watermaster has been received.

OK

The proposed use is not restricted or prohibited by statute.

OK

The source of water is not withdrawn from appropriation by order of the State Engineer or Water Resources Commission, or legislatively withdrawn under ORS Chapter 538.

OK

agricultural use(s) is/are classified uses(s) under the Coast Basin Program, OAR 690 - 517.

OK

The application, map and supporting data are complete and free of defects.

Land Use Compatibility:

As expressed by the Planning Department of Coos County

_____ The land uses to be served by proposed water uses (including proposed construction) are allowed or are not regulated by the local comprehensive plan (ordinance section _____).

_____ The land uses to be served by proposed water uses (including proposed construction) involve discretionary land use approvals which have been obtained.

X

The local government was notified, and sent no comment pursuant to the rules at the time; land use was presumed in compliance per such statement printed on the application.

For ground water applications:

OK A copy of the constructor's log, if available, for any well already constructed, or required information regarding actual or anticipated construction.

OK The report from groundwater section has been received.

For reservoir applications:

N/A Plans, specifications and supporting information for the dam and impoundment area.

SUPERSEDED
2/17/93

Oregon

December 29, 1992

Harry G. Spencer
P.O. Box 291
Langlois, OR 97450

Reference: **File Number G-12685**

Dear Mr. Spencer:

This letter informs you of the current status for a water use permit and accompanies the Technical Review For Water Use Permit(s). delay in transmitting this information and any inconvenience the wait may have caused.

The enclosed Report of Technical Review is a summary of a specialized analysis of various aspects of your application and proposed use required by the state of Oregon's administrator (11-160) to conduct this official technical application submitted to the Oregon Water Department for a water use permit. This process was designed to ensure your application receives a fair evaluation and protection of existing water rights and of the public at large.

AS THE RESULT OF OUR TECHNICAL EVALUATION OF YOUR APPLICATION, WE HAVE DETERMINED THAT YOUR APPLICATION SATISFIES THE REQUIREMENTS OF THE TECHNICAL REVIEW.

The Department will now move your application to the next phase of processing. This phase includes a public interest review of your proposed water use. No final action may be taken on your application until the public interest review is completed.

You should also note that the Report of Technical Review describes conditions currently anticipated which may limit the water use proposed in your application.

If you wish to object to any of the analyses contained in the Report, you must submit your objection to the Department in writing within sixty days of the date of mailing of this Report or by the date prescribed below. Your objection must allege that the technical review is defective and you may also submit evidence which demonstrates that your proposed water use will not impair or be detrimental to the public interest.

add of wells for cran & nuts:

2 groundwater wells:

G 12341 - Spencers

G 12655

1 res:

R 71841

2 surface - Spencers

S-71046

S-71842

10-3-91 date on this

G 12685



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

SUPERSEDED
2/17/93

Oregon

December 29, 1992

WATER
RESOURCES
DEPARTMENT

Harry G. Spencer
P.O. Box 291
Langlois, OR 97450

Reference: File Number G-12685

Dear Mr. Spencer:

This letter informs you of the current status of your application for a water use permit and accompanies the Satisfactory Report of Technical Review For Water Use Permit(s). We apologize for the delay in transmitting this information and Report to you and for any inconvenience the wait may have caused you.

The enclosed Report of Technical Review is the Department's summary of a specialized analysis of various legal and scientific aspects of your application and proposed water use. We are required by the state of Oregon's administrative rules (OAR 690-11-160) to conduct this official technical review of each application submitted to the Oregon Water Resources Department for a water use permit. This process was designed to insure that your application receives a fair evaluation and to secure protection of existing water rights and of the public at large.

AS THE RESULT OF OUR TECHNICAL EVALUATION OF YOUR APPLICATION, WE HAVE DETERMINED THAT YOUR APPLICATION SATISFIES THE REQUIREMENTS OF THE TECHNICAL REVIEW.

The Department will now move your application to the next phase of processing. This phase includes a public interest review of your proposed water use. No final action may be taken on your application until the public interest review is completed.

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p. 2

Copies of the Report of Technical Review will be distributed to all persons who have filed comments or otherwise expressed an interest in the water use proposed in your application. Interested parties must also submit their objections within the prescribed objection period. Those objections must allege that the technical review is defective and/or that the proposed water use may impair or be detrimental to the public interest.

If an objection contains allegations that the technical review is defective, it must be accompanied by facts which support such allegations. If an objection contains allegations that the proposed water use may impair or be detrimental to the public interest, it must specify the particular public interest standards which apply from the Oregon Revised Statutes (ORS 537.170) and the Oregon Administrative Rules (OAR 690-11-195) and state facts showing how such standards would be violated.

All evidence and objections must be received by our Salem office **no later than 5:00 p.m. on or before March 1, 1993**, or the Department may presume there is no opposition to any of the analyses set out in the technical review report.

If objections and evidence are submitted on or before the above time and date, the Director of the Water Resources Department will evaluate each issue raised in the objections and either accept or deny them. Objectors are encouraged to indicate whether they would be interested in resolving their concerns through alternative dispute resolution.

If any of the objections are denied, the objector will be allowed thirty days to submit a protest to the denial. The protest must meet the standards set forth in OAR 690-02-030 through 080.

If you have any questions please feel free to telephone me or any of the Department's Water Rights Section staff. My telephone number is 378-8455, extension 262 in Salem, or you may call toll free from within the state to 1-800-624-3199.

Sincerely,

Steve Brown
Senior Water Rights Specialist
Water Rights Section

Enclosures

cc: WaterWatch of Oregon

Report Date: December 29, 1992

OREGON WATER RESOURCES DEPARTMENT

SATISFACTORY REPORT OF TECHNICAL REVIEW

FOR WATER USE PERMIT(S)

**OBJECTIONS TO THE PROPOSED WATER USE AS DESCRIBED BELOW MUST BE RECEIVED IN WRITING BY THE OREGON WATER RESOURCES DEPARTMENT, 3850 PORTLAND ROAD N.E., SALEM, OREGON 97310, BY 5 P.M. ON OR BEFORE:
March 1, 1993.**

APPLICATION FILE NUMBER - G 12685

Applicant name/address/county/phone:

HARRY G SPENCER
PO BOX 291
LANGLOIS, OR 97450
COOS Co. 503-347-4114

Date application received for filing and/or tentative date of priority: 10/ 4/1991

SOURCE: WELLS 1 & 2 BASIN: CROFT LAKE

Purpose and/or use: NURSERY and CRANBERRY OPERATIONS.

Flow: 0.356 cfs; being 0.178 cfs for cranberry operations and 0.008 cfs for nursery operations from well 1 and 0.178 cfs for cranberry operations and 0.10 cfs for nursery operations from well 2.

Point of Diversion Location:

WELL 1 - SE 1/4 SE 1/4, Section 11, T 30 S, R 15 W, WM; 1030 feet north and 750 feet west, from SE corner Section 11;

WELL 2 - SE 1/4 SE 1/4, Section 11, T 30 S, R 15 W, WM; 5 feet north and 20 feet west, from SE corner Section 11;

Place of use:

	CRANBERRY	NURSERY
SE 1/4 SE 1/4	10.0 Acres	4.0 Acres
Section 11		
Nw 1/4 NE 1/4	2.0 Acres	
Section 13		
Township 30 South, Range 15 West, WM		

This is an application for use of GROUNDWATER.

 X The Groundwater/Hydrology Section report indicates that:

Pursuant to OAR 690-09-040, the proposed groundwater withdrawal **will not** have the potential to cause substantial interference with surface water.

In addition, the Groundwater/Hydrology Section has reported the water is likely to be available to supply the proposed use.

CONFLICTS WITH OTHER WATER RIGHTS:

 X There **are no** existing rights from this point of diversion. See permit conditions.

 X There **are no** existing water rights appurtenant to the lands described in the application. See permit conditions.

REPORT CONCLUSIONS:

Water in the amount of 0.356 cfs is likely available for **the 12** month period of use. Therefore, the Director finds that water is available in sufficient amount and during periods which will reasonably support the proposed use.

THE PROPOSED WATER USE, AS CONDITIONED, SATISFIES THE REQUIREMENTS OF THIS TECHNICAL REVIEW.

This Report of Technical Review sets out the Director's technical analysis of the application. In addition to this technical analysis, the Director will evaluate this application to determine whether the proposed water use might impair or be detrimental to the public interest under the standards set out in ORS 537.170(5) and OAR 690-11-195. Matters relating to public interest in the proposed water use which are raised in objections will be evaluated following the 60-day objection period.

CONDITIONS:

All conditions previously imposed on permits granted for use of water for the same category of use from this source are to be imposed on this proposed use.

PERMIT CONDITIONS

Application: G-12685

The following conditions will apply to water use under the permit, and will appear in the permit.

1. Use of water under this permit is subject to all prior rights.
2. Period of allowed use: year round
3. Rate (cfs or gpm) and/or Volume (acre/feet or gallons) of use:
4. A regulating device shall be installed pursuant to ORS 540-310.
- 5.a A measuring device is not required at this time.
6. Water use development requirements:
 - A) Begin construction by (one year from issuance of permit).
 - B) Complete construction by October 1, 1995.
 - C) Completely apply the water to beneficial use by October 1, 1996.
7. Failure to comply with any of the provisions of the permit may result in action including, but not limited to, restrictions on the use, penalties, or cancellation of the permit.
8. The permit 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.
9. The use shall conform to such reasonable rotation system as may be ordered by the proper state officer.
10. 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. The use of water shall be

limited when it interferes with any prior surface or ground water rights.

11. 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.
12. The amount of water used for NURSERY OPERATIONS is limited to a diversion of 0.15 cubic foot per second per acre. For the irrigation of **containerized nursery plants**, the amount of water diverted is limited to ONE-FORTIETH of one cubic foot per second (or its equivalent) and 5.0 acre feet per acre per year. For the irrigation of **in ground nursery plants** the amount of water diverted is limited to ONE-EIGHTIETH of one cubic foot per second (or its equivalent) and 2.5 acre feet per acre per year. The use of water for NURSERY OPERATIONS may be made at anytime of the year that the use is beneficial. For the irrigation of **any other crop**, the amount of water diverted is limited to ONE-EIGHTIETH of one cubic foot per second (or its equivalent) and 2.5 acre feet per acre during the irrigation season of each year.
13. The amount of water diverted for CRANBERRY OPERATIONS, together with amounts secured under any other rights existing for the same lands, is limited as follows: For temperature control, 0.15 cubic foot per second per acre; For flood harvesting or pest control, 0.05 cubic foot per second per acre; For irrigation of cranberries, ONE-FORTIETH of one cubic foot per second and 3.0 acre-feet per acre for each acre irrigated during the irrigation season of each year. For the irrigation of any other crop, ONE-EIGHTIETH of one cubic foot per second and 2.5 acre-feet per acre for each acre irrigated during the irrigation season of each year.
14. If substantial interference with a senior water right occurs due to withdrawal of water from any well listed on this permit, then use of water from the well(s) shall be discontinued or reduced and/or the schedule of withdrawal shall be regulated until or unless the Department approves or implements an alternative administrative action to mitigate the interference. The Department encourages junior and senior appropriators to jointly develop plans to mitigate interferences.

SUPERSEDED
2/17/93

Oregon

December 29, 1992

WATER
RESOURCES
DEPARTMENT

Harry G. Spencer
P.O. Box 291
Langlois, OR 97450

Reference: File Number G-12685

Dear Mr. Spencer:

This letter informs you of the current status of your application for a water use permit and accompanies the Satisfactory Report of Technical Review For Water Use Permit(s). We apologize for the delay in transmitting this information and Report to you and for any inconvenience the wait may have caused you.

The enclosed Report of Technical Review is the Department's summary of a specialized analysis of various legal and scientific aspects of your application and proposed water use. We are required by the state of Oregon's administrative rules (OAR 690-11-160) to conduct this official technical review of each application submitted to the Oregon Water Resources Department for a water use permit. This process was designed to insure that your application receives a fair evaluation and to secure protection of existing water rights and of the public at large.

AS THE RESULT OF OUR TECHNICAL EVALUATION OF YOUR APPLICATION, WE HAVE DETERMINED THAT YOUR APPLICATION SATISFIES THE REQUIREMENTS OF THE TECHNICAL REVIEW.

The Department will now move your application to the next phase of processing. This phase includes a public interest review of your proposed water use. No final action may be taken on your application until the public interest review is completed.

You should also note that the Report of Technical Review describes conditions currently anticipated which may limit the water use proposed in your application.

If you wish to object to any of the analyses contained in the Report, you must submit your objection to the Department in writing within sixty days of the date of mailing of this Report or by the date prescribed below. Your objection must allege that the technical review is defective and you may also submit evidence which demonstrates that your proposed water use will not impair or be detrimental to the public interest.



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p. 2

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If you have any questions please feel free to telephone me or any of the Department's Water Rights Section staff. My telephone number is 378-8455, extension 262 in Salem, or you may call toll free from within the state to 1-800-624-3199.

Sincerely,

Steve Brown
Senior Water Rights Specialist
Water Rights Section

Enclosures

cc: WaterWatch of Oregon

cc: File # G-12685

Water Watch

ODF&W

Watermaster # 19

Caseworker Brown/Spence
2/12/93

Original to applicant

Water Watch

OF OREGON

By FAX 378-8130 and Regular Mail

April 28, 1993

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

Re: Objection to Technical Report for:
G-12685, Spencer, Coos Co., Cranberry Use

This application is the second application this month to be proposed for issuance in this area. This application, like application G-12692 requests ground water for cranberry operations in the Croft Lake Basin. We understand that numerous other applications for cranberry use are pending for this area. The cumulative impacts of these proposed uses are of great concern to WaterWatch. We have been in contact with residents in the area that have a concern about the capacity of the resource to accommodate all of these proposed uses.

Croft Lake and its surrounding tributaries and wetlands support a variety wildlife and fish life. Residents in the area have reported searun cutthroat trout in the lake and its tributaries. It is suspected that the trout spawn in the lakes tributaries. Croft lake is a is also a source of recreation in the area and area residents are concerned about maintaining the lakes existing water quality. The surrounding wetlands provide wildlife and other habitat and we understand that the Nature Conservancy has been involved in wetland protection efforts in the area.

We suggest that a meeting be held with the Department, WaterWatch and concerned citizens in the area to discuss the resource and the growing concerns about the capacity of the resource to accommodate further expansion of the cranberry industry. From the information contained in the technical report is it clear that little information is known about the hydrology of the water system in this area. We have been in contact with some researchers at an Oregon university who are embarking on a study of the area. This study should help the state better determine the impacts of these proposed uses on the ecosystem and wetlands in the Croft Lake Basin.

In addition, we submit 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:

Water Resources Department
Page 2

- 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).
- 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 did 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 report provides conclusions rather than evaluations of water availability. OAR 690-11-160(1)(f).
- 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(3), (6), (9), and (10). *See also*, OAR 690-11-195(3)(d), (4)(a), (4)(c)(A), (4)(d)(A), (4)(d)(B), (4)(e), and (4)(f). The proposed use may not be supported by existing groundwater supplies and is likely to deplete flows needed to for Croft Lake and other surface waters in the area. The South Coast Basin plan states:

Ground water is a significant factor in the maintenance of natural lakes in the dunes area. Extensive ground water development may affect lake water levels. Finding 5.

The total extent of the ground water supply in the basin has not been determined. Existing data suggest ground water supplies are limited and would not support irrigation in most areas. Finding 19.

Marine terrace deposits and sediments of the Coquille formation are potential ground water sources for irrigation of cranberries in the Bandon area. Finding 20.

Water Resources Department
Page 3

Marine terrace deposits in the Harbor area are capable of producing large quantities of water, but some areas are approaching levels of sustained yield. Finding 21.

Income from water-related recreation is a major contributor to the economy of the South Coast Basin. Finding 39.

The natural lakes, storage reservoirs and free-flowing streams support part of the water-based recreation use. Finding 40.

The water resources, wetlands and associated habitat are critical to the subsistence and propagation of wildlife in the Basin. Finding 42.

The basin plan admits that little is known about groundwater in the basin. However, the presence of wetlands indicates that a hydraulic connection exists between groundwater and surface waters in the area and that groundwater levels are very close to the surface of the ground. Reduction in groundwater contribution to wetlands and surface waters will decrease contributions to existing wetlands and decrease inflows into the lake. Thus, groundwater in this area is vital to the maintenance of lake levels, surface water flows, and the protection of public uses of water including wildlife, recreation and fish.

1. **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

Water Resources Department
Page 4

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 what is happening to the water resource. It also gives the 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.

Information about groundwater use and groundwater characteristics is especially crucial for management of the groundwater resource and surface water resources in the Croft Lake Basin. Those who benefit from using the resource should be called upon to provide information needed information about the resource. The permittee should be required to measure and report any use under this permit. In addition, the permittee should be required to measure and report water level elevations. This information is critical for resource protection and management. As a policy matter, WaterWatch believes that water use measurement and reporting should be required of every new permit issued in Oregon.

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

The groundwater resource in this area is likely connected to surface waters. However, the extent of the connection and the short and long term impacts of the connection on surface waters in the basin has not been determined. Oregon's ground water statute 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 particularly critical given the existing connection with surface waters, the relatively unpolluted condition of the surface waters, the public uses of the surface waters and the increasing pressure in this area to develop groundwater and surface water resources for irrigation of cranberry bogs.

Water Resources Department
Page 5

There are at least four other pending applications pending for irrigation in this area. The Commission, in its basin plan has 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 and other pending permits should probably not be issued. At the very least, this permit must be reviewed in conjunction with the other pending applications for irrigation in the area to determine the cumulative impacts on the resource of these proposed and any existing uses. It is not in the public interest to turn a blind eye to the cumulative effects of this industry on the resource in the basin.

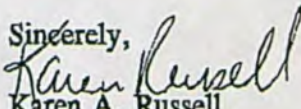
3. The use as proposed violates Oregon's statewide policies.

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 use as proposed to go forward violates all these policies. The Department's failure to manage the ground and surface waters conjunctively in the Croft Lake basin will only exacerbate existing overallocation problems, degrade water quality, and will, particularly in the long run, impair existing surface water rights and public uses in the basin. It is bad public policy to continue issuing groundwater rights in the face of increasing doubts as to whether increased groundwater use is sustainable.

◆ **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,

Karen A. Russell
Legal Affairs Coordinator

STATE OF OREGON
WATER RESOURCES DEPARTMENT

INTEROFFICE MEMO

To: FILE

Date: October 6, 1992

From: MICHAEL ZWART ^{MJZ}

Subject: APPLICATION G-12685, HARRY SPENCER

Geologist Russell Ralls prepared a report, dated August 18, 1992, in support of this application. A copy was hand delivered to me by Kip Lombard at the August 28th Commission meeting. The principal conclusion of the report is that Conner Creek and its associated marsh are part of a perched water table which is separated from the marine terrace deposits developed by the applicant's wells. A review of the report prompted Donn Miller and me to review the file and earlier reports by Mr. Ralls, giving particular emphasis to the aquifer tests conducted at the two wells.

Mr. Ralls concludes in this latest report that Conner Creek and its marsh are perched on a layer of "ball clay." He believes that the clay acts as a confining bed for underlying confined aquifers that are actually in better hydraulic connection with the marine terrace deposits developed by the subject wells. He bases this conclusion on the prevalence of the clay encountered in many of the test borings and the deeper test well, and on one water level measurement in the deeper test well which indicated a lower head than Conner Creek for those confined aquifers.

I disagree with those conclusions. The aquifer developed by the subject wells is a water-table (unconfined) aquifer. This is supported by the aquifer tests covered in the earlier reports. The water levels in the wells has a higher head than Conner Creek, indicating a groundwater gradient toward the creek. Therefore, Conner Creek is likely in hydraulic connection with, and is a discharge area for, this water-table aquifer. The local presence of a clay layer, which appears to vary in thickness, may result in local steepening of the gradient and in a generally poor hydraulic connection with the creek. If the deeper confined aquifers encountered in the test well were actually hydraulically isolated from the creek, I would have expected the confined water level to have a higher head than the creek, resulting in a much lower groundwater gradient between the test well and the subject wells than is indicated in the cross-section in the report. I believe that the final water level reported for the test well may be depressed due to insufficient time (30 minutes) for the water level to equilibrate prior to measurement.

The aquifer test data were analysed to attempt to confirm or deny the presence of a recharge response. The data were not ideal for this purpose. In particular, the lack of any pre-test water level data and minimal water level recovery data required certain assumptions to be made regarding the test conditions. However, analysis of the drawdown data does not indicate that the wells are subject to a recharge response, at least during the first four days of pumping. Therefore, on this basis, it is tentatively concluded that the proposed use of groundwater may

Michael Zwart

October 6, 1992

Page 2

have low potential for substantial interference with Conner Creek, despite the fact that the wells develop a water-table aquifer that is hydraulically connected to it. A superseding review form is included with this memo. Permit condition 4I is recommended.

The three reports prepared by Mr. Ralls were based on work performed by him in support of his client's application. In the case of the earlier two reports, no communication with the Groundwater/Hydrology Section took place prior to his work. Had this occurred, it would likely have resulted in additional data being collected, allowing additional analyses to better verify the lack of a recharge response at the wells. Prior to undertaking such work on their own, it is recommended that applicants confer with staff hydrogeologists regarding the types of additional information that could be provided to attempt to rebut the presumption of hydraulic connection and/or the potential for substantial interference.

STATE OF OREGON
WATER RESOURCES DEPARTMENT

INTEROFFICE MEMO

To: FILE 

Date: April 21, 1992

From: MICHAEL ZWART

Subject: APPLICATION G-12685, HARRY SPENCER

Geologist Russell Ralls called me to request whether additional information or testing could be suggested to improve the chances of permit issuance. I informed him that I was not as familiar with the file as are Sarah Meyer and Donn Miller, and perhaps there was information already collected by him to support an alternate interpretation, although I stated that this was doubtful. I told him that I'd review his reports for such information. In a phone conversation today, I indicated that nothing in the reports appeared to be in need of further analysis. At the same time, I suggested that he may wish not to explore additional work to attempt rebuttal of the Department's presumption of hydraulic connection until some action is taken on the Application in its present form.

STATE OF OREGON
WATER RESOURCES DEPARTMENT

INTEROFFICE MEMO

To: FILE

Date: April 2, 1992

From: MICHAEL ZWART ^{MJZ}

Subject: APPLICATION G-12685, HARRY SPENCER

Geologist Russell Ralls called Donn Miller late on April 1st to request some of the material on file, including Sarah Meyer's notes and calculations with regard to the aquifer tests done by Ralls. He also wanted to know what sort of additional information could be provided to aid the applicant's chances of receiving a permit.

On April 2nd, Donn and I conferred about the requests and faxed him the information requested plus a copy of Division 9 rules. We also suggested the types of data that could be collected to rebut the Department's presumption of hydraulic connection. We both later spoke to Mr. Ralls by phone and answered some of his questions regarding hydrogeology and deferred some others to the Water Rights Section, if he wished to pursue them. These included the types of permit conditions, if one could be issued, that are possible or likely, and also whether permit issuance could be aided if it could be demonstrated that the consumptive use of the water is minimal, with the remainder providing groundwater recharge.

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

JUN - 7 1994
WATER RESOURCES DEPT.
SALEM, OREGON

Harry and Doug Spencer
P.O. Box 291
Langlois, Oregon 97450
June 4, 1994

Dear Martha:

Re: Application G-12685, Draft Permit G-11404

Your time is valuable, so I will be concise. I feel that the delay and uncertainty in bringing our contested application for water rights before the water rights Commission is not reasonable or fair.

I feel that holding up our permit due to Water Watch objections is unfair also, though I know you must go through due process, which leads back to the above procedural concern.

Why is it not reasonable or fair?

1. We submitted 2 hydrologic studies and a geologic study, all done by a geologist recommended by your department, that conclude there is no substantial hydrologic connection between our wells and Conner Creek, which flows through our property. We do not affect the stream nor the level of Croft Lake below us. At least seventy-five percent of our irrigation water returns to the aquifer. Water losses are miniscule.

Water Watch has made no studies in our area, and has no evidence to dispute these conclusions.

2. Your department, after 3 years of study and processing, has approved our application through satisfactory technical review.

Water Watch submits generalized statements and concerns without documentation. Your department denied their objection.

3. No one else objected to our permit; the Department of Fish and Wildlife has not filed on our stream (Conner or Davis Creek) and do not consider our stream suitable or important for migratory fish.

Water Watch, and now I understand BLM after the period for objections is over, are throwing in concerns about migratory fish.

4. The priority date for our application is early amongst the 21 applications pending in the Croft Lake drainage. We have no quarrel with the applications of Robinson and Fraser that precede us, nor Warnock that has the same priority date. Our application is for ground water with our studies proving adequate supply with no affect on surface water. Some of the other applications are for surface water. A 3 year history of actual water use by all the above parties in the drainage is the best evidence that water supply is adequate. During these last 3 years, Croft Lake water level has not been affected; there have been no complaints about existing water levels from the Croft Lake Club, who zealously monitor the lake (which they have artificially dammed and raised the natural level of).

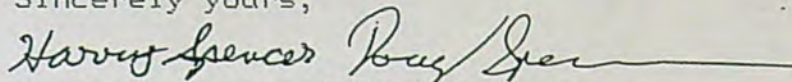
My understanding is that your departments policy is to consider applications in order of priority, and to issue permits up to the calculated allowable supply in the drainage. You would have issued us a permit by this time, were it not for the objection solely of Water Watch a year ago. Mr. Gabriel of your department told us in March that we, along with other early priority applicants in the Croft drainage, would be considered at the Commission Meeting in Klamath Falls June 3, 1994. Three weeks later when I called, the plan had been changed. There is no date set. The feeling is that probably all the applications in the drainage will be processed to the same stage, and considered as a group by the commission.

What happened to processing by order of priority date? Where is the justice in throwing all later requests in with ours for consideration by

the commission? Why can't we get on with the process? I feel that time delay only works against us, and it's a very uncomfortable feeling. We, a small family operation, have spent \$175,000 on well drilling, testing, showing feasibility of water supply without adverse environmental impact, and finally after your draft permit virtually promised us a permit, building the irrigation facilities and cranberry bogs. We will be harvesting cranberries on 2 acres this Fall, 8 acres the following Fall.

Could you please re-schedule those of us who have early application priority, and are complete through the Department's denial of Water Watch objection, for the next Commission Meeting?

Sincerely yours,

A handwritten signature in cursive script that reads "Harry Spencer Doug Spencer". The signature is written in dark ink and is positioned above the typed names.

Harry Spencer and Doug Spencer

December 12, 1991

INTER-OFFICE MEMO

TO: Tom Shook

FROM: E. George Robison

Subject: Flows for Davis Cr. basin

Here are the flows for the Davis Cr. basin. I gave you flows derived from both the model and from basin ratios with nearby Ferry Cr. near Bandon. I recommend that you use the model flows because the Ferry Cr. data was based on data taken during the 1976-77 season and then extended out. While the extension gets rid of the drought effect in general, I think the distribution of flows generated from it was flattened somewhat by the drought.

Flow evaluation for Davis and Conner Cr. South Coast Basin Streamflows in 50% Exceedence Mean monthly flows CFS

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Davis Mod.	23.9	20.3	17.2	11.2	5.6	5.3	3.3	2.4	2.5	3.9	10.3	28.2
Davis Rat.	15.2	14.1	12.8	10.2	6.9	4.0	2.5	2.0	2.3	3.8	10.4	17.1
Conn. Mod.	8.2	6.8	5.8	3.9	1.9	1.6	1.0	0.7	0.7	1.3	3.6	10.0
Conn. Rat.	5.4	5.0	4.6	3.6	2.4	1.4	0.9	0.7	0.8	1.4	3.7	6.1

cc Fred Lissner
Barry Norris
Steve Applegate

G-12685 0.4 CFS FOR CR & NO

PRINT OUT OF APPLICATIONS PENDING:

2.16 CFS
TC 1.38 ..
CR 0.78 ..

ASSUMED REPORT TOOK INTO ACCOUNT, PERMITS

TO: Water Rights Section

October 6, 1992

FROM: Groundwater/Hydrology Section Michael J. Zwart
Reviewer's Name

SUBJECT: Application G- 12685

1. **PER THE** _____ Basin rules, one or more of the proposed POA's is/is not within _____ feet/mile of a surface water source (_____) and taps a groundwater source hydraulically connected to the surface water.

2. **BASED UPON OAR 690-09** currently in effect, I have determined that the proposed groundwater use
 - a. _____ will, or } have the potential for substantial interference with the nearest surface water
 - b. will not } source, namely _____; or
 - c. _____ will, if properly conditioned, adequately protect the surface water from interference:
 - i. _____ The permit should contain condition #(s) _____;
 - ii. _____ The permit should contain special condition(s) as indicated in "Remarks" below;
 - iii. _____ The permit should be conditioned as indicated in item 4 below; or
 - d. _____ will, with well reconstruction, adequately protect the surface water from substantial interference.

3. **BASED UPON** available data, I have determined that groundwater for the proposed use
 - a. will, or } likely be available in the amounts requested without injury to prior rights and/or
 - b. _____ will not } within the capacity of the resource; or
 - c. can, if properly conditioned, avoid injury to existing rights or to the groundwater resource;
 - i. _____ The permit should contain condition #(s) 4 I;
 - ii. _____ The permit should contain special condition(s) as indicated in "Remarks" below;
 - iii. _____ The permit should be conditioned as indicated in item 4 below.

4.
 - a. _____ **THE PERMIT** should allow groundwater production from no deeper than _____ ft. below land surface;
 - b. _____ The permit should allow groundwater production from no shallower than _____ ft. below land surface;
 - c. _____ The permit should allow groundwater production only from the _____ groundwater reservoir between approximately _____ ft. and _____ ft. below land surface;
 - d. _____ Well reconstruction is necessary to accomplish one or more of the above conditions.
 - e. _____ One or more POA's commingle 2 or more sources of water. The applicant must select one source of water per POA and specify the proportion of water to be produced from each source.

REMARKS: Supersedes review by Sarah Meyer of 11/12/91 and 12/5/91.

WELL CONSTRUCTION (If more than one well doesn't meet standards, attach an additional sheet.)

5. **THE WELL** which is the point of appropriation for this application does not meet current well construction standards based upon:

- a. review of the well log;
- b. field inspection by _____;
- c. report of CWRE _____;
- d. other: (specify) _____

6. **THE WELL** construction deficiency:

- a. constitutes a health threat under Division 200 rules;
- b. commingles water from more than one groundwater reservoir;
- c. permits the loss of artesian head;
- d. permits the de-watering of one or more groundwater reservoirs;
- e. other: (specify) _____

7. **THE WELL** construction deficiency is described as follows: _____

8. **THE WELL** a. was, or } constructed according to the standards in effect at the time of
b. was not } original construction or most recent modification.
c. I don't know if it met standards at the time of construction.

RECOMMENDATION:

- A. I recommend including the following condition in the permit:
"No water may be appropriated under terms of this permit until the well(s) has been repaired to conform to current well construction standards and proof of such repair is filed with the Enforcement Section of the Water Resources Department."
- B. I recommend withholding issuance of the permit until evidence of well reconstruction is filed with the Enforcement Section of the Water Resources Department.
- C. **REFER** this review to Enforcement Section for concurrence.

THIS SECTION TO BE COMPLETED BY ENFORCEMENT PERSONNEL

I concur in G/H's recommendation A or B above relating to conditioning or withholding the permit.

_____, 1992.

(Signature)

I do not concur in G/H's recommendation A or B above relating to conditioning or withholding the permit for the following reasons: _____

_____, 1992.

(Signature)

G-12701

Oregon

WATER
RESOURCES
DEPARTMENT

August 23, 1994

Ronald S. Yockim, Esq.
Benjamin Lombard Jr., Esq.
P.O. Box 218
Roseburg, OR 97470

RE: Water Right Applications G-12685 (Spencer) and
R-71841 and 71842 (Fraser)

Dear Messrs Yockim and Lombard:

Please accept my apology for the delay in response to your correspondence on the status of the above referenced applications. As you know, there are a number of pending applications for use of water for cranberry production in the New River Basin. Before I address the Spencer and Fraser applications, I would like to describe our plan for completion of processing all of these applications.

There are 21 applications filed by 12 applicants on tributaries of the New River above Croft Lake. We have completed technical reviews on 19 of the 21 applications. Objections have been filed on all 19 of the technical reviews. We have denied four of the objections filed against the 19 applications. All four of these denials have been protested.

Of these 21 applications, eight are groundwater applications, six are reservoir applications and seven are secondary applications for use of the reservoir water. Of the two groundwater applications, six were found to have the potential for substantial interference with surface water in the New River drainage and the other two were found not to have the potential for substantial interference with surface water.

Of the four that have received protests, we propose to present the two that do not have the potential for substantial interference with surface water to the Water Resources Commission at its September 8 - 9, 1994 meeting. These applications are G-12685 (the above-referenced Spencer groundwater application), and G-12692 in the name of Warnock.



Commerce Building
158 12th Street NE
Salem, OR 97310-0210
(503) 378-3739
FAX (503) 378-8130

Ronald S. Yockim, Esq.
Benjamin Lombard, Esq.
August 23, 1994
Page Two

As to all the other applications, we propose to offer alternative dispute resolution to these applicants to resolve a number of issues related to further out-of-stream appropriation of water in the New River Basin.

The objections raise number of issues concerning the proposed water uses described in the technical reviews. I will not attempt to recite all of the precise issues here; however, there are a number of issues raised by the objectors that we feel can be addressed in a dispute resolution forum. In addition, the United States Bureau of Land Management issued its Draft Management Plan for the New River Area of Critical Environmental Concern (ACEC). This Plan describes a number of water related environmental issues that should be evaluated as a part of our application review procedure. We feel this plan can serve as a valuable tool during the dispute resolution discussions.

As you will recall, the dispute resolution procedure set out in our Division 11 rules is entirely voluntary (I have enclosed a copy of our Division 11 rules for your convenience). We intend to offer this process to all of the applicants who propose to use either surface water or groundwater that has the potential for surface water interference. Al Cook, our Southwest Region Manager, will be the Department's contact person for the dispute resolution process. For those that wish to participate in the dispute resolution process, Mr. Cook will set up discussion schedules to meet the needs of the applicants and interested parties. Hopefully, we can resolve most of the issues and move forward on the applications without the need for the formal protest procedure.

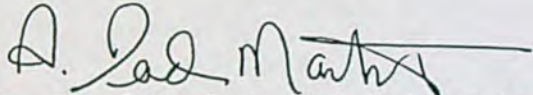
We envision the discussion parties will include the applicants, the objectors, the Bureau of Land Management and a representative of the Department. If other individuals should be included in the discussions to insure complete resolution of all issues we should be sure to identify such parties before we begin discussions.

Ronald S. Yockim, Esq.
Benjamin Lombard, Esq.
August 23, 1994
Page Three

In conclusion, Mr. Spencer's application (G-12685) is scheduled for the September 8 - 9, 1994 Water Resources Commission meeting. We will forward a copy of the Commission staff report to you as soon as it is prepared. The Fraser applications (R-71841 and 71842) are not scheduled for the September Commission meeting. Mr. Fraser will be offered alternative dispute resolution.

If you have further questions, please give me a call.

Sincerely,



A. Reed Marbut, Administrator
Water Rights/Adjudication Division

ARM/dpc

Enclosure

cc: Harry G. Spencer
Russell Fraser
Roderick Fraser
Stephen D. Warnock
Al Cook, OWRD

February 17, 1993

Harry G. Spencer
P.O. Box 291
Langlois, OR 97450

WATER
RESOURCES
DEPARTMENT

Reference: File Number G-12685

Dear Mr. Spencer:

This letter informs you of the current status of your application for a water use permit and accompanies the Satisfactory Report of Technical Review For Water Use Permit(s). We apologize for the delay in transmitting this information and Report to you and for any inconvenience the wait may have caused you.

The enclosed Report of Technical Review is the Department's summary of a specialized analysis of various legal and scientific aspects of your application and proposed water use. We are required by the state of Oregon's administrative rules (in OAR 690-11-160) to conduct this official technical review of each application submitted to the Oregon Water Resources Department for a water use permit. This process was designed to insure that your application receives a fair evaluation and to secure protection of existing water rights and of the public at large.

AS THE RESULT OF OUR TECHNICAL EVALUATION OF YOUR APPLICATION, WE HAVE DETERMINED THAT YOUR APPLICATION SATISFIES THE REQUIREMENTS OF THE TECHNICAL REVIEW.

The Department will now move your application to the next phase of processing. This phase includes a public interest review of your proposed water use. No final action may be taken on your application until the public interest review is completed.

You should also note that the Report of Technical Review describes conditions currently anticipated which may limit the water use proposed in your application.

If you wish to object to any of the analyses contained in the Report, you must submit your objection to the Department in writing within 60 days of the date of mailing of this Report or by the date specified below. Your objection must allege that the technical review is defective and you may also submit evidence which demonstrates that your proposed water use will not impair or be detrimental to the public interest.



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

Copies of the Report of Technical Review will be distributed to all persons who have filed comments or otherwise expressed an interest in the water use proposed in your application. Interested parties must also submit their objections within the prescribed objection period. Those objections must allege that the technical review is defective and/or that the proposed water use may impair or be detrimental to the public interest.

If an objection contains allegations that the technical review is defective, it must be accompanied by facts which support such allegations. If an objection contains allegations that the proposed water use may impair or be detrimental to the public interest, the objection must specify the particular public interest standards which apply as set out in Oregon Revised Statutes (ORS 537.170(5)) and Oregon Administrative Rules (OAR 690-11-195) and state facts showing how such standards would be violated.

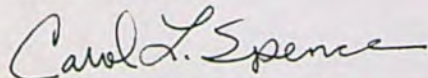
All evidence and objections must be received by our Salem office no later than 5:00 p.m. on or before April 30, 1993 or the Department may presume there is no opposition to any of the analyses set out in the technical review report. Evidence and objections must be addressed and delivered to: Oregon Water Resources Department, Water Rights Section, 3850 Portland Road, Northeast, Salem, Oregon 97310.

If objections and evidence are submitted on or before the above time and date, the Director of the Water Resources Department will evaluate each issue raised in the objections and either accept or deny them. Objectors are encouraged to indicate whether they would be interested in resolving their concerns through alternative dispute resolution.

If any of the objections are denied, the objector will be allowed thirty days to submit a protest to the denial. The protest must meet the standards set forth in OAR 690-02-030 through 080.

If you have any questions, please feel free to telephone me or any of the Department's Water Rights Section staff. My telephone number is 378-3739, in Salem, or you may call toll free from within the state to 1-800-624-3199.

Sincerely,



CAROL LEWIS SPENCE
Senior Water Rights Specialist

Enclosure

cc: ODFW
WATERWATCH
WATERMASTER #19

Report Date: December 29, 1992

SB
2/17/95
C. [Signature]

OREGON WATER RESOURCES DEPARTMENT

SATISFACTORY REPORT OF TECHNICAL REVIEW

FOR WATER USE PERMIT(S)

OBJECTIONS TO THE PROPOSED WATER USE AS DESCRIBED BELOW MUST BE RECEIVED IN WRITING BY THE OREGON WATER RESOURCES DEPARTMENT, 3850 PORTLAND ROAD N.E., SALEM, OREGON 97310, BY 5 P.M. ON OR BEFORE:

APRIL 30., 1993.

APPLICATION FILE NUMBER - G 12685

Applicant name/address/county/phone:

HARRY G SPENCER
PO BOX 291
LANGLOIS, OR 97450
COOS Co. 503-347-4114

Date application received for filing and/or tentative date of priority: 10/ 4/1991

SOURCE: WELLS 1 & 2 BASIN: CROFT LAKE

Purpose and/or use: NURSERY and CRANBERRY OPERATIONS.

Flow: 0.356 cfs; being 0.178 cfs for cranberry operations and 0.008 cfs for nursery operations from well 1 and 0.178 cfs for cranberry operations and 0.10 cfs for nursery operations from well 2.

Point of Diversion Location:

WELL 1 - SE 1/4 SE 1/4, Section 11, T 30 S, R 15 W, WM; 1030 feet north and 750 feet west, from SE corner Section 11;

WELL 2 - SE 1/4 SE 1/4, Section 11, T 30 S, R 15 W, WM; 5 feet north and 20 feet west, from SE corner Section 11;

Place of use:

	CRANBERRY	NURSERY
SE 1/4 SE 1/4	10.0 Acres	4.0 Acres
Section 11		
Nw 1/4 NE 1/4	2.0 Acres	
Section 13		
Township 30 South, Range 15 West, WM		

This is an application for use of GROUNDWATER.

 X The Groundwater/Hydrology Section report indicates that:

Pursuant to OAR 690-09-040, the proposed groundwater withdrawal **will not** have the potential to cause substantial interference with surface water.

In addition, the Groundwater/Hydrology Section has reported the water is likely to be available to supply the proposed use.

CONFLICTS WITH OTHER WATER RIGHTS:

 X There **are no** existing rights from this point of diversion. See permit conditions.

 X There **are no** existing water rights appurtenant to the lands described in the application. See permit conditions.

REPORT CONCLUSIONS:

Water in the amount of 0.356 cfs is likely available for **the 12** month period of use. Therefore, the Director finds that water is available in sufficient amount and during periods which will reasonably support the proposed use.

THE PROPOSED WATER USE, AS CONDITIONED, SATISFIES THE REQUIREMENTS OF THIS TECHNICAL REVIEW.

This Report of Technical Review sets out the Director's technical analysis of the application. In addition to this technical analysis, the Director will evaluate this application to determine whether the proposed water use might impair or be detrimental to the public interest under the standards set out in ORS 537.170(5) and OAR 690-11-195. Matters relating to public interest in the proposed water use which are raised in objections will be evaluated following the 60-day objection period.

CONDITIONS:

All conditions previously imposed on permits granted for use of water for the same category of use from this source are to be imposed on this proposed use.

PERMIT CONDITIONS

Application: G-12685

The following conditions will apply to water use under the permit, and will appear in the permit.

1. Use of water under this permit is subject to all prior rights.
2. Period of allowed use: year round
3. Rate (cfs or gpm) and/or Volume (acre/feet or gallons) of use:
4. A regulating device shall be installed pursuant to ORS 540-310.
- 5.a A measuring device is not required at this time.
6. Water use development requirements:
 - A) Begin construction by (one year from issuance of permit).
 - B) Complete construction by October 1, 1995.
 - C) Completely apply the water to beneficial use by October 1, 1996.
7. Failure to comply with any of the provisions of the permit may result in action including, but not limited to, restrictions on the use, penalties, or cancellation of the permit.
8. The permit 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.
9. The use shall conform to such reasonable rotation system as may be ordered by the proper state officer.
10. 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. The use of water shall be

limited when it interferes with any prior surface or ground water rights.

11. 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.
12. The amount of water used for NURSERY OPERATIONS is limited to a diversion of 0.15 cubic foot per second per acre. For the irrigation of **containerized nursery plants**, the amount of water diverted is limited to ONE-FORTIETH of one cubic foot per second (or its equivalent) and 5.0 acre feet per acre per year. For the irrigation of **in ground nursery plants** the amount of water diverted is limited to ONE-EIGHTIETH of one cubic foot per second (or its equivalent) and 2.5 acre feet per acre per year. The use of water for NURSERY OPERATIONS may be made at anytime of the year that the use is beneficial. For the irrigation of **any other crop**, the amount of water diverted is limited to ONE-EIGHTIETH of one cubic foot per second (or its equivalent) and 2.5 acre feet per acre during the irrigation season of each year.
13. The amount of water diverted for CRANBERRY OPERATIONS, together with amounts secured under any other rights existing for the same lands, is limited as follows: For temperature control, 0.15 cubic foot per second per acre; For flood harvesting or pest control, 0.05 cubic foot per second per acre; For irrigation of cranberries, ONE-FORTIETH of one cubic foot per second and 3.0 acre-feet per acre for each acre irrigated during the irrigation season of each year. For the irrigation of any other crop, ONE-EIGHTIETH of one cubic foot per second and 2.5 acre-feet per acre for each acre irrigated during the irrigation season of each year.
14. If substantial interference with a senior water right occurs due to withdrawal of water from any well listed on this permit, then use of water from the well(s) shall be discontinued or reduced and/or the schedule of withdrawal shall be regulated until or unless the Department approves or implements an alternative administrative action to mitigate the interference. The Department encourages junior and senior appropriators to jointly develop plans to mitigate interferences.

MEMORANDUM

TO: Water Resources Commission
FROM: Director *MS*
SUBJECT: Agenda Item H.2, September 9, 1994
Water Resources Commission Meeting

WATER
RESOURCES
DEPARTMENT

Consideration of Application G-12685 Submitted by Harry G. Spencer for use of Groundwater from the South Coast Basin for Agricultural Use (Cranberry and Nursery Operations)

I. Issue Statement

On October 4, 1991, Harry G. Spencer submitted Application G-12685 to appropriate 0.357 cubic feet per second (cfs) of water from two wells for cranberry use and nursery operations. WaterWatch of Oregon (WaterWatch) protested the Water Resources Department's denial of objections to the Satisfactory Report of Technical Review. The Water Resources Commission is required to review applications in which a protest has been submitted (OAR 690-11-185[2]).

II. Background

The land to be served by the proposed use of water is in the Croft Lake sub-basin of the South Coast Basin, approximately 10 miles south of Bandon, Oregon (Attachment 1, location map). The applicant proposes to use water for cranberry use on 12 acres and nursery use operations on 4 acres.

The Croft Lake Basin contributes water to Croft Lake and downstream to the New River. In 1986 and 1991, the United States Department of the Interior, Bureau of Land Management (BLM) purchased land adjacent to the Pacific Ocean along New River. The land was designated as the New River Area of Critical Environmental Concern (ACEC) in 1987. New River flows in a south to north direction bisecting BLM land (Attachment 2, BLM's New River Area).

BLM recently completed a draft New River Area of Critical Environmental Concern Management Plan. Goals of the plan are to:

- 1) Manage habitat for biodiversity and ecosystem health with special emphasis on sensitive wildlife and botanical species;
- 2) Protect significant cultural sites from human disturbance or destruction;
- 3) Manage for recreational activities to the extent compatible with Goals 1 and 2; and



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- 4) Promote opportunities for education, interpretation and nature appreciation to the extent compatible with Goals 1 and 2.

The New River Basin consists of approximately 128 square miles of drainage area. There are approximately 70 water right applications pending in the New River Basin. Most of these applications request appropriation of surface water, or groundwater found to have the potential for interference with surface water flows. BLM has raised concerns that approval of any applications for use of water that could potentially reduce surface water flows may have an adverse impact on the ACEC. Staff are exploring alternatives to address these concerns along with the concerns raised by WaterWatch, including offering to conduct alternative dispute resolution pursuant to OAR 690-11-180.

However, staff of the Department's Groundwater/Hydrology Section have evaluated Application G-12685 and find that the proposed groundwater use will likely have no potential for substantial interference with surface waters (Attachment 5). This finding suggests that the proposed use would not affect the ACEC and that the Department could recommend issuance of a permit for this proposed use.

Since a protest has been filed on the Department's denial of an objection, this report is submitted to the Commission for determination as to whether the proposed water use may impair or be detrimental to the public interest in accordance with OAR 690-11-185(2)(g).

III. Evaluation

Application G-12685 (Attachment 4), filed in the name of Harry G. Spencer, proposes the use of 0.357 cfs (160 gallons per minute or gpm) of water from two wells, being 0.357 cfs (160 gpm) for cranberry use on 12.0 acres and 0.108 cfs (48.5 gpm) for nursery operations on 4.0 acres.

In analyzing the proposed use, staff of the Department Groundwater/Hydrology Section issued a preliminary evaluation which indicated that the proposed use of water would have the potential to interfere with the nearest surface water sources. Subsequent to that evaluation, the applicant retained Russell J. Ralls, Registered Professional Geologist, to investigate the hydrology of the project area. Mr. Ralls submitted his report to the Department relating his findings. Upon review of the report, staff were persuaded that the proposed use of groundwater would not have the potential for substantial interference with the nearest surface water sources.

A satisfactory report of technical review was announced on February 17, 1993 (Attachment 6). The report is the Department's summary of the analysis of legal and scientific aspects of the

application and proposed water use. The evaluation concluded that the application satisfied the requirements of the technical review. The date for submittal of objections to the technical review report was April 30, 1993.

IV. Objections

Objections to the report were filed by WaterWatch on April 29, 1993 (Attachment 7). In general, WaterWatch alleges that the Technical Review was defective and that the proposed use of water would impair or be detrimental to the public interest. The Department responded by letter to WaterWatch, addressing the issues raised.

The WaterWatch objection was denied (Attachment 8). The following is a summary of the principal issues raised in the objections and the bases for the Department's denial of the objections:

- 1. The Technical Review is defective, as the report fails to include many of the elements required by OAR 690-11-160.**

All of the technical review elements of the public interest evaluation are contained in the Report of Technical Review and the Technical Review Checklist.

- 2. Failure to require water use measurement and reporting violates Oregon's policy and goals which call for control of Oregon's waters.**

Since August 1993, the Department has been including some form of measuring and reporting condition in all permits. These proposed conditions are routinely included in the technical review stage, to allow for comments from the applicant and public. Since this technical review was issued without a measurement and reporting conditions, Department staff propose adding the following 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.
- 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.

- C. The Director may require the permittee to keep and maintain a record of the amount (volume) of water used and may require the permittee to report water use on a periodic schedule as established by the Director. In addition, the Director may require the permittee to report general water use information, the periods of water use and the place and nature of use of water under the permit. The Director may provide an opportunity for the permittee to submit alternative reporting procedures for review and approval.
3. **The use is likely to impair the public interest because the use will interfere with surface waters in the Basin.**

The report of the Groundwater/Hydrology Section indicates that, the proposed groundwater use, if properly conditioned, will not have the potential for substantial interference with the nearest surface water source and water will likely be available in the amounts requested without injury to prior rights and/or within the capacity of the resource.

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

No specific allegations were made in this regard. Staff have reviewed the factors described in the rules relating to public interest and have not identified any conflicts which would prohibit issuance of the permit. Staff are not aware of any other statewide policies which would be violated by issuance of this permit.

V. WaterWatch Protest

If a protest is timely filed, Department rules require the application, objections and protest be referred to the Commission for review.

WaterWatch submitted a timely protest to the Department's denial of objections on November 15, 1993 (Attachment 9). The protest alleges that objections made by WaterWatch relating to deficiencies in the technical review report as well as public interest issues were not answered adequately by the denial of objections. Other than in this regard, the scope of the WaterWatch protest is limited to concerns addressed in their letter of objection to the report of technical review. Staff have outlined these concerns and the Department's responses to them in Section IV of this staff report.

VI. Public Interest Review

In reviewing a protested application, the Commission must determine whether the proposed water use would impair or be detrimental to the public interest (OAR 690-11-185). In doing so, the Commission is directed by rule to weigh and assess the impact of the proposed water use on the following statutory considerations listed in ORS 537.170(5):

(a) Conserving the highest use of the water for all purposes, including irrigation, domestic use, municipal water supply, power development, public recreation, protection of commercial and game fishing and wildlife, fire protection, mining, industrial purposes, navigation, scenic attraction or any other beneficial use to which the water may be applied for which it may have a special value to the public.

(b) The maximum economic development of the waters involved.

(c) The control of the waters of this state for all beneficial purposes, including drainage, sanitation and flood control.

(d) The amount of waters available for appropriation for beneficial use.

(e) The prevention of wasteful, uneconomic, impracticable or unreasonable use of the waters involved.

(f) All vested and inchoate rights to the waters of this state or to the use of the waters of this state, and the means necessary to protect such rights.

(g) The state water resources policy formulated under ORS 536.295 to 536.350 and 537.505 to 537.525.

Under OAR 690-11-195(2), the Commission "shall" conclude the use would impair or be detrimental to the public interest if the department's technical review reveals that:

(a) The proposed use is prohibited by statute or scenic waterway criteria;

(b) The proposed use is not allowed under the applicable basin program, or an exception has not been granted;

(c) The proposed use cannot be modified to be consistent with conditions previously imposed by the Commission on other appropriations from the same source;

(d) The proposed use would conflict with an existing water right; or

(e) Water is not available for the proposed use.

In this case, the Department's technical review did not reveal any of the above concerns. Staff have also reviewed the application pursuant to the additional public interest review considerations described in OAR 690-11-195(3) and have not identified any conflicts that would prohibit issuance of the permit or lead to a conclusion that the proposed use would impair or be detrimental to the public interest. A copy of the applicable administrative rules is included as Attachment 11. A copy of the Department's Public Interest Review Checklist is included as Attachment 10.

VII. Summation

Application G-12685 proposes the use of groundwater from two wells in the South Coast Basin. The application proposes the use of 0.357 cfs (160 gallons per minute or gpm) of water from two wells, being 0.357 cfs (160 gpm) for cranberry use on 12.0 acres and 0.108 cfs (48.5 gpm) for nursery operations on 4.0 acres. A Satisfactory Report of Technical Review was issued on February 17, 1993. WaterWatch of Oregon filed objections to the proposed use of water. The Director denied the objections. WaterWatch of Oregon filed a protest to the denial of their objections. Consistent with OAR 690-11-185(2)(g), any application for which a protest has been filed must be reviewed by the Commission.

VIII. Alternatives

The Commission may consider the following alternative actions:

Alternative 1: Find that the proposed groundwater use as described in Application G-12685, as modified by addition of the conditions set out in the denials of objections and included in this report, will not impair or be detrimental to the public interest, and authorize the Director to issue the permit with appropriate conditions.

Alternative 2: Find that the proposed use of water will impair or be detrimental to the public interest, propose rejection of the application and schedule a contested case hearing to make a final public interest determination.

Alternative 3: Find that the proposed groundwater use may impair or be detrimental to the public interest and schedule a contested case hearing for a determination of any particular issue.

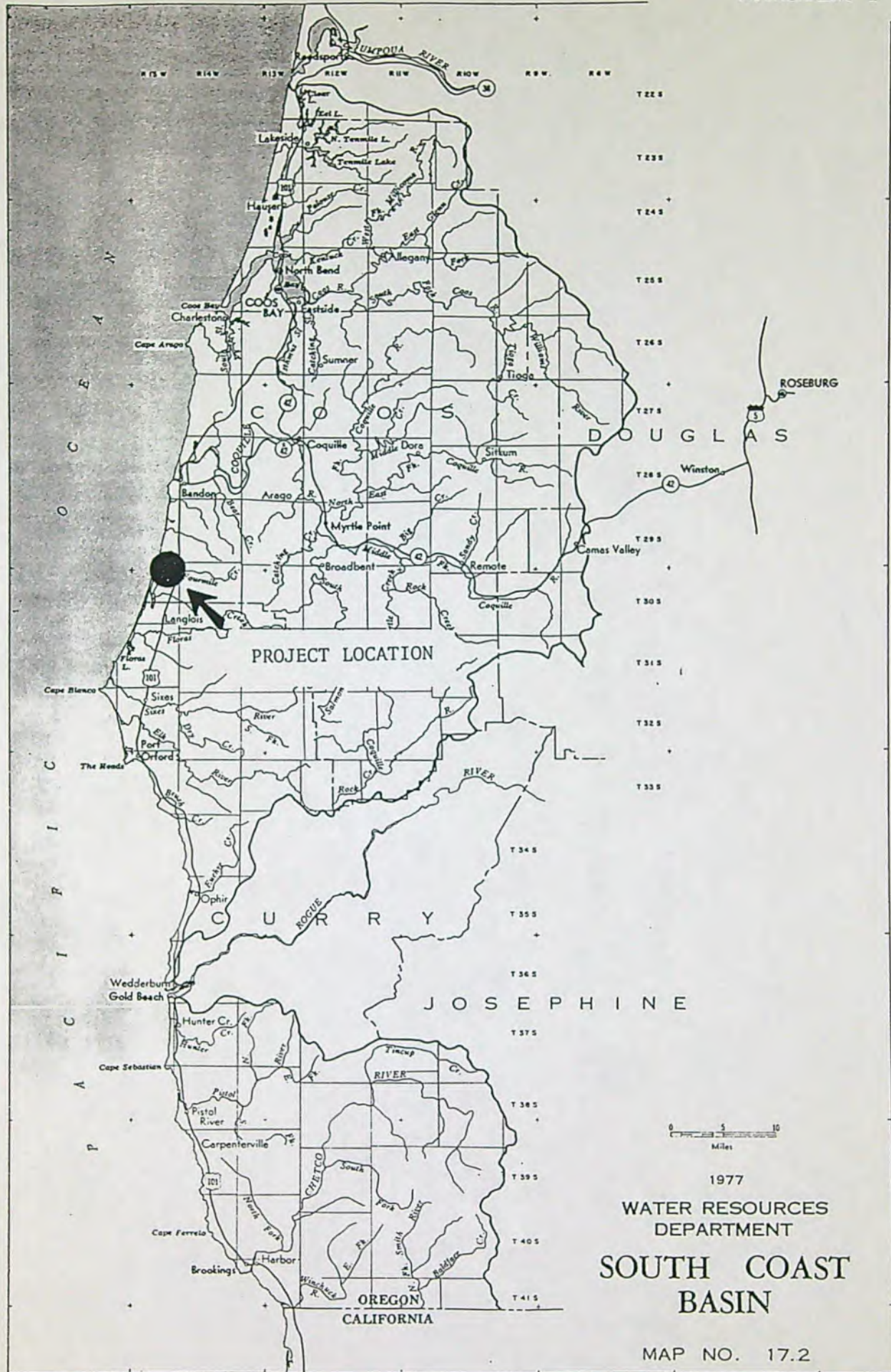
IX. Recommendation

The Director and staff recommend Alternative 1, that the Commission find that the proposed groundwater use as described in Application G-12685, as modified by addition of the conditions set out in the denials of objections and included in this report, will not impair or be detrimental to the public interest, and authorize the Director to issue the permit with appropriate conditions.

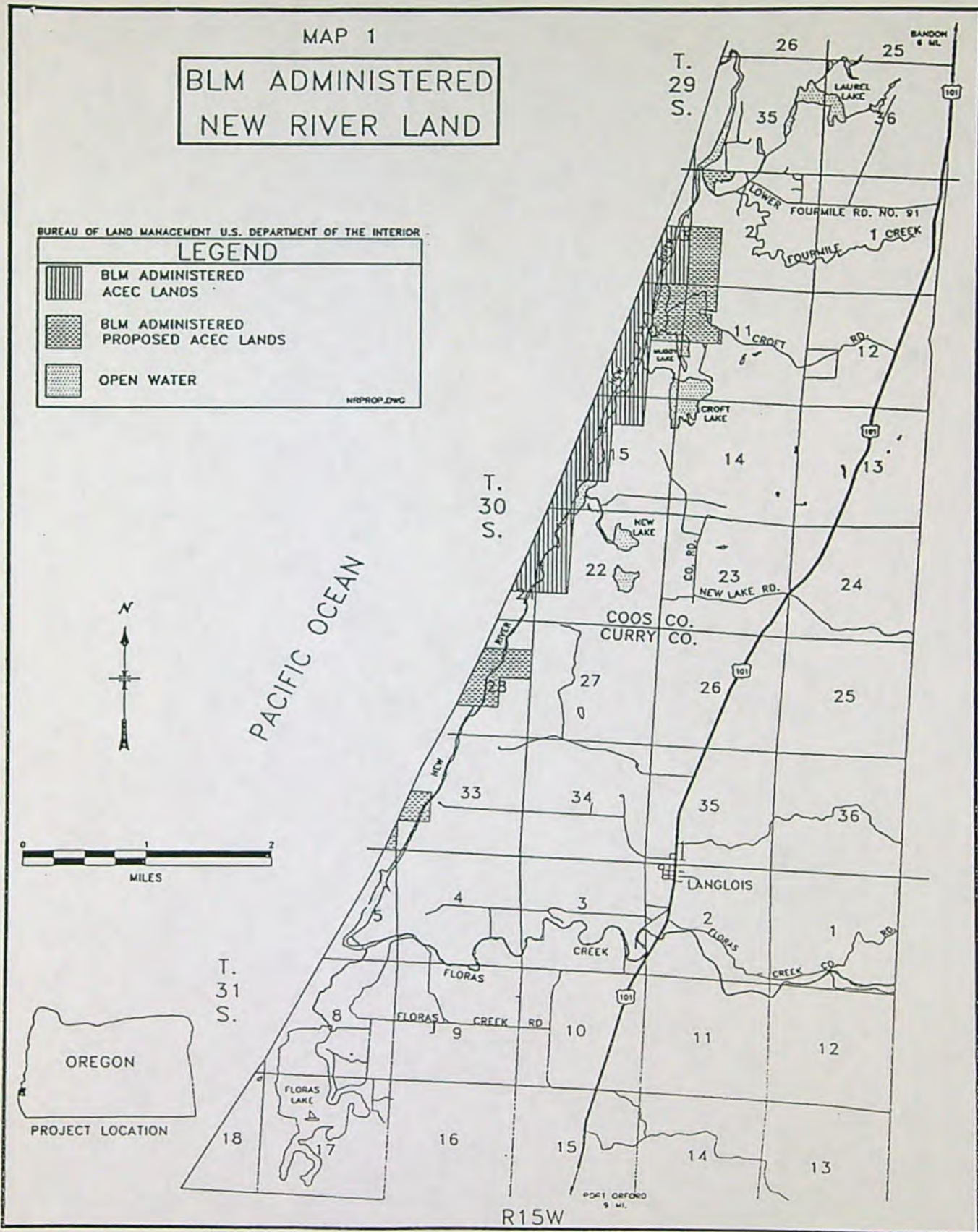
WRC Agenda Item H.2
September 9, 1994
Page 7

- Attachments:
- 1) Location map
 - 2) Application map
 - 3) BLM Administered New River Land
 - 4) Application
 - 5) Groundwater/Hydrology Section Report
 - 6) Technical Review Report
 - 7) Objections to the Report
 - 8) Denial of the Objections
 - 9) Protest
 - 10) Preliminary Public Interest Review
 - 11) OAR Chapter 690, Division 11, Sections 185 and 195

Steve Brown
Water Rights/Adjudication Division
August 15, 1994



Map 1 - BLM Administered New River Land



APPLICATION MAP

REGISTERED

IN THE NAME OF HARRY G SPENCER

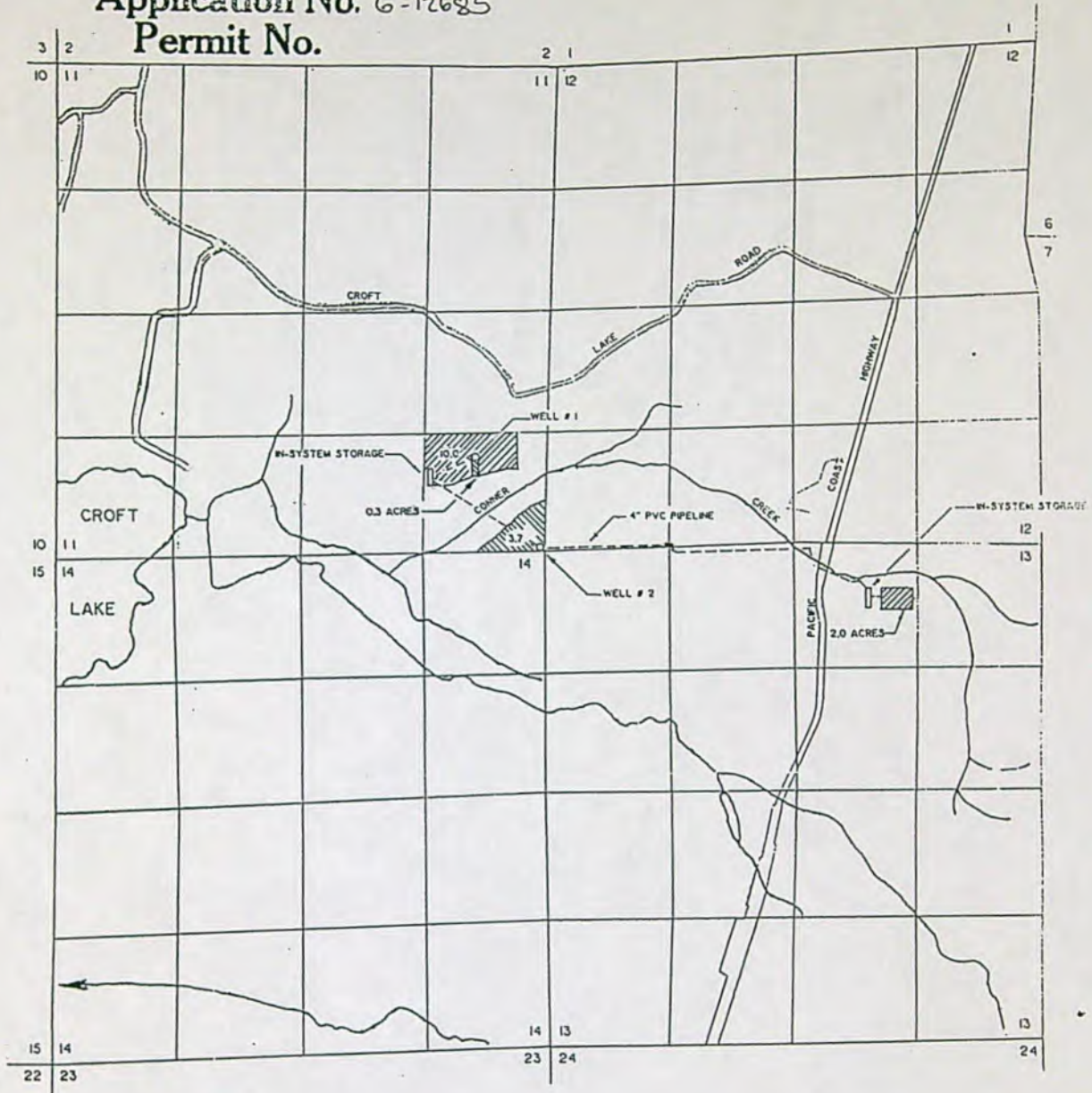
OCT - 3 1991



SECTIONS 11, 12, AND 13, T30S, R15W, W.M.

WATER RESOURCES DEPT.
SALEM, OREGON



Application No. G-12685
Permit No.

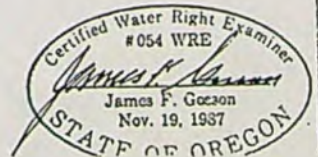


-  CRANBERRY USE
-  NURSERY OPERATIONS

WELL # 1 IS LOCATED 1030 FEET NORTH AND 750 FEET WEST FROM THE SOUTHEAST CORNER OF SECTION 11.

WELL # 2 IS LOCATED 5 FEET NORTH AND 20 FEET WEST FROM THE SOUTHEAST CORNER OF SECTION 12, BOTH WELLS BEING WITHIN THE SOUTHEAST 1/4 OF THE SOUTHEAST 1/4 OF SECTION 11, TOWNSHIP 30 SOUTH, RANGE 15 WEST, W.M., COOS COUNTY.

THE PURPOSE OF THIS MAP IS TO IDENTIFY THE LOCATION OF THE WATER RIGHT. IT IS NOT INTENDED TO PROVIDE INFORMATION RELATIVE TO THE LOCATION OF PROPERTY OWNERSHIP BOUNDARY LINES.



Application No. 6-12685

OCI -/ 1991

WATER RESOURCES DEPT.
SALEM, OREGON

State of Oregon
WATER RESOURCES DEPARTMENT

Application for a Permit to Appropriate Ground Water

Applicant(s) Harry G. Spencer
(Please print or type - use dark ink)

Mailing Address: P. O. Box 291
Langlois Oregon 97450 503/347-4114
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.): two wells
- _____
- _____

If development is less than one mile from a natural stream, give the following:

Distance from development to stream: well #1 = 630 ft. well #2 = 520 ft.

Elevation difference between streambed and development: well #1 = 35 ft. well #2 = 40 f

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. See enclosed water well reports. See remarks as to well identification.

Diameter of well: _____ Depth in feet: _____

Type and size of well casing: _____ No. of feet: _____

Estimated depth to water: _____

Type of access port or measuring device: _____

Wells to be drilled by: _____
Address: _____

If the water well is flowing artesian, describe your water control and conservation works: _____

2. **TOTAL AMOUNT OF WATER** to be applied to beneficial use: 0.357 cubic feet per second, OR 160 gallons per minute. If water is to be used from more than one ground water source, give the quantity of water from each: being 0.178 cfs from well #1 and 0.178 cfs from well #2.

3. **INTENDED USE(s) OF WATER:** Cranberry use and nursery operations.

If for more than one use, give the quantity of water from each source for each use;

0.178 cfs from well #1 for cranberry use. 0.178 cfs from well #2, cranberry use.
0.008 cfs from well #1 for nursery operations. 0.10 cfs from well #2, nursery oper.

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.)

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 cranberry use: 12.0

Other (describe) nursery operations: 4.0

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).*

A submersible electric motor and pump with plastic pipe to the places of use.
Well #1 will deliver water directly to the 10.0 acres of cranberries, and 0.3 acres of nursery operations, or to in-system storage in the SW1/4 SW1/4, Section 11, then repumped to those places of use. Well #2 will do likewise, or pump directly to the 2.0 acres of cranberries in the NW1/4 NE1/4, Section 13, or to the adjacent in-system storage, then repumped to that place of use.

5. **PROJECT SCHEDULE:** *(List month and year)*

Proposed date construction work will begin Construction started

Proposed date construction work will be completed October 1, 1993

Proposed date water use will be completed October 1, -1997

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):

 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: Both wells have been drilled. Start card #16053 pertains to well #1, and start card #26375 pertains to well #2.

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.

Harvey D. Spencer
Signature of Applicant

9/27/91
Date

Signature of Co-Applicant, if any

Date

FOR WATER RESOURCES DEPARTMENT USE ONLY.

Dear Applicant:

I certify that I have examined the foregoing application, together with the accompanying information, and am returning it to you for:

In order to retain its tentative priority, this application must be returned with the requested corrections or additions on or before:

_____, 19____.

WITNESS my hand this _____ day of _____, 19____.

Water Resources Director

By: _____

This instrument was first received in the office of the Water Resources Director at Salem, Oregon, on the 4th day of Oct, 1991, at 8 o'clock, A M.

APPLICATION NO: G-12685

TO: Water Rights Section

October 6, 1992

FROM: Groundwater/Hydrology Section Michael J. Zwart
Reviewer's Name

ATTACHMENT 5

SUBJECT: Application G- 12685

1. **PER THE** _____ Basin rules, one or more of the proposed POA's is/is not within _____ feet/mile of a surface water source (_____) and taps a groundwater source hydraulically connected to the surface water.

2. **BASED UPON OAR 690-09** currently in effect, I have determined that the proposed groundwater use
 - a. _____ will, or } have the potential for substantial interference with the nearest surface water
 - b. will not } source, namely _____; or
 - c. _____ will, if properly conditioned, adequately protect the surface water from interference:
 - i. _____ The permit should contain condition #(s) _____;
 - ii. _____ The permit should contain special condition(s) as indicated in "Remarks" below;
 - iii. _____ The permit should be conditioned as indicated in item 4 below; or
 - d. _____ will, with well reconstruction, adequately protect the surface water from substantial interference.

3. **BASED UPON** available data, I have determined that groundwater for the proposed use
 - a. will, or } likely be available in the amounts requested without injury to prior rights and/or
 - b. _____ will not } within the capacity of the resource; or
 - c. can, if properly conditioned, avoid injury to existing rights or to the groundwater resource;
 - i. _____ The permit should contain condition #(s) 4 I;
 - ii. _____ The permit should contain special condition(s) as indicated in "Remarks" below;
 - iii. _____ The permit should be conditioned as indicated in item 4 below.

4.
 - a. _____ **THE PERMIT** should allow groundwater production from no deeper than _____ ft. below land surface;
 - b. _____ The permit should allow groundwater production from no shallower than _____ ft. below land surface;
 - c. _____ The permit should allow groundwater production only from the _____ groundwater reservoir between approximately _____ ft. and _____ ft. below land surface;
 - d. _____ Well reconstruction is necessary to accomplish one or more of the above conditions.
 - e. _____ One or more POA's commingle 2 or more sources of water. The applicant must select one source of water per POA and specify the proportion of water to be produced from each source.

REMARKS: Supersedes review by Sarah Meyer of 11/12/91 and 12/5/91.

Oregon

February 17, 1993

Harry G. Spencer
P.O. Box 291
Langlois, OR 97450

WATER
RESOURCES
DEPARTMENT

Reference: File Number G-12685

Dear Mr. Spencer:

This letter informs you of the current status of your application for a water use permit and accompanies the Satisfactory Report of Technical Review For Water Use Permit(s). We apologize for the delay in transmitting this information and Report to you and for any inconvenience the wait may have caused you.

The enclosed Report of Technical Review is the Department's summary of a specialized analysis of various legal and scientific aspects of your application and proposed water use. We are required by the state of Oregon's administrative rules (in OAR 690-11-160) to conduct this official technical review of each application submitted to the Oregon Water Resources Department for a water use permit. This process was designed to insure that your application receives a fair evaluation and to secure protection of existing water rights and of the public at large.

AS THE RESULT OF OUR TECHNICAL EVALUATION OF YOUR APPLICATION, WE HAVE DETERMINED THAT YOUR APPLICATION SATISFIES THE REQUIREMENTS OF THE TECHNICAL REVIEW.

The Department will now move your application to the next phase of processing. This phase includes a public interest review of your proposed water use. No final action may be taken on your application until the public interest review is completed.

You should also note that the Report of Technical Review describes conditions currently anticipated which may limit the water use proposed in your application.

If you wish to object to any of the analyses contained in the Report, you must submit your objection to the Department in writing within 60 days of the date of mailing of this Report or by the date specified below. Your objection must allege that the technical review is defective and you may also submit evidence which demonstrates that your proposed water use will not impair or be detrimental to the public interest.



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

Copies of the Report of Technical Review will be distributed to all persons who have filed comments or otherwise expressed an interest in the water use proposed in your application. Interested parties must also submit their objections within the prescribed objection period. Those objections must allege that the technical review is defective and/or that the proposed water use may impair or be detrimental to the public interest.

If an objection contains allegations that the technical review is defective, it must be accompanied by facts which support such allegations. If an objection contains allegations that the proposed water use may impair or be detrimental to the public interest, the objection must specify the particular public interest standards which apply as set out in Oregon Revised Statutes (ORS 537.170(5)) and Oregon Administrative Rules (OAR 690-11-195) and state facts showing how such standards would be violated.

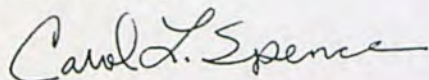
All evidence and objections must be received by our Salem office no later than 5:00 p.m. on or before April 30, 1993 or the Department may presume there is no opposition to any of the analyses set out in the technical review report. Evidence and objections must be addressed and delivered to: Oregon Water Resources Department, Water Rights Section, 3850 Portland Road, Northeast, Salem, Oregon 97310.

If objections and evidence are submitted on or before the above time and date, the Director of the Water Resources Department will evaluate each issue raised in the objections and either accept or deny them. Objectors are encouraged to indicate whether they would be interested in resolving their concerns through alternative dispute resolution.

If any of the objections are denied, the objector will be allowed thirty days to submit a protest to the denial. The protest must meet the standards set forth in OAR 690-02-030 through 080.

If you have any questions, please feel free to telephone me or any of the Department's Water Rights Section staff. My telephone number is 378-3739, in Salem, or you may call toll free from within the state to 1-800-624-3199.

Sincerely,



CAROL LEWIS SPENCE
Senior Water Rights Specialist

Enclosure

cc: ODFW
WATERWATCH
WATERMASTER #19

This is an application for use of GROUNDWATER.

X The Groundwater/Hydrology Section report indicates that:

Pursuant to OAR 690-09-040, the proposed groundwater withdrawal will not have the potential to cause substantial interference with surface water.

In addition, the Groundwater/Hydrology Section has reported the water is likely to be available to supply the proposed use.

CONFLICTS WITH OTHER WATER RIGHTS:

X There are no existing rights from this point of diversion. See permit conditions.

X There are no existing water rights appurtenant to the lands described in the application. See permit conditions.

REPORT CONCLUSIONS:

Water in the amount of 0.356 cfs is likely available for the 12 month period of use. Therefore, the Director finds that water is available in sufficient amount and during periods which will reasonably support the proposed use.

THE PROPOSED WATER USE, AS CONDITIONED, SATISFIES THE REQUIREMENTS OF THIS TECHNICAL REVIEW.

This Report of Technical Review sets out the Director's technical analysis of the application. In addition to this technical analysis, the Director will evaluate this application to determine whether the proposed water use might impair or be detrimental to the public interest under the standards set out in ORS 537.170(5) and OAR 690-11-195. Matters relating to public interest in the proposed water use which are raised in objections will be evaluated following the 60-day objection period.

CONDITIONS:

All conditions previously imposed on permits granted for use of water for the same category of use from this source are to be imposed on this proposed use.

PERMIT CONDITIONS

Application: G-12685

The following conditions will apply to water use under the permit, and will appear in the permit.

1. Use of water under this permit is subject to all prior rights.
2. Period of allowed use: year round
3. Rate (cfs or gpm) and/or Volume (acre/feet or gallons) of use:
4. A regulating device shall be installed pursuant to ORS 540-310.
- 5.a A measuring device is not required at this time.
6. Water use development requirements:
 - A) Begin construction by (one year from issuance of permit).
 - B) Complete construction by October 1, 1995.
 - C) Completely apply the water to beneficial use by October 1, 1996.
7. Failure to comply with any of the provisions of the permit may result in action including, but not limited to, restrictions on the use, penalties, or cancellation of the permit.
8. The permit 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.
9. The use shall conform to such reasonable rotation system as may be ordered by the proper state officer.
10. 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. The use of water shall be

limited when it interferes with any prior surface or ground water rights.

11. 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.
12. The amount of water used for NURSERY OPERATIONS is limited to a diversion of 0.15 cubic foot per second per acre. For the irrigation of containerized nursery plants, the amount of water diverted is limited to ONE-FORTIETH of one cubic foot per second (or its equivalent) and 5.0 acre feet per acre per year. For the irrigation of in ground nursery plants the amount of water diverted is limited to ONE-EIGHTIETH of one cubic foot per second (or its equivalent) and 2.5 acre feet per acre per year. The use of water for NURSERY OPERATIONS may be made at anytime of the year that the use is beneficial. For the irrigation of any other crop, the amount of water diverted is limited to ONE-EIGHTIETH of one cubic foot per second (or its equivalent) and 2.5 acre feet per acre during the irrigation season of each year.
13. The amount of water diverted for CRANBERRY OPERATIONS, together with amounts secured under any other rights existing for the same lands, is limited as follows: For temperature control, 0.15 cubic foot per second per acre; For flood harvesting or pest control, 0.05 cubic foot per second per acre; For irrigation of cranberries, ONE-FORTIETH of one cubic foot per second and 3.0 acre-feet per acre for each acre irrigated during the irrigation season of each year. For the irrigation of any other crop, ONE-EIGHTIETH of one cubic foot per second and 2.5 acre-feet per acre for each acre irrigated during the irrigation season of each year.
14. If substantial interference with a senior water right occurs due to withdrawal of water from any well listed on this permit, then use of water from the well(s) shall be discontinued or reduced and/or the schedule of withdrawal shall be regulated until or unless the Department approves or implements an alternative administrative action to mitigate the interference. The Department encourages junior and senior appropriators to jointly develop plans to mitigate interferences.

Water Watch OF OREGON

ATTACHMENT 7

By FAX 378-8130 and Regular Mail

RECEIVED

APR 29 1993

WATER RESOURCES DEPT
SALEM, OREGON

April 28, 1993

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

Re: Objection to Technical Report for:
G-12685, Spencer, Coos Co., Cranberry Use

This application is the second application this month to be proposed for issuance in this area. This application, like application G-12692 requests ground water for cranberry operations in the Croft Lake Basin. We understand that numerous other applications for cranberry use are pending for this area. The cumulative impacts of these proposed uses are of great concern to WaterWatch. We have been in contact with residents in the area that have a concern about the capacity of the resource to accommodate all of these proposed uses.

Croft Lake and its surrounding tributaries and wetlands support a variety wildlife and fish life. Residents in the area have reported searun cutthroat trout in the lake and its tributaries. It is suspected that the trout spawn in the lakes tributaries. Croft lake is a is also a source of recreation in the area and area residents are concerned about maintaining the lakes existing water quality. The surrounding wetlands provide wildlife and other habitat and we understand that the Nature Conservancy has been involved in wetland protection efforts in the area.

We suggest that a meeting be held with the Department, WaterWatch and concerned citizens in the area to discuss the resource and the growing concerns about the capacity of the resource to accommodate further expansion of the cranberry industry. From the information contained in the technical report is it clear that little information is known about the hydrology of the water system in this area. We have been in contact with some researchers at an Oregon university who are embarking on a study of the area. This study should help the state better determine the impacts of these proposed uses on the ecosystem and wetlands in the Croft Lake Basin.

In addition, we submit 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).
- 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 did 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 report provides conclusions rather than evaluations of water availability. OAR 690-11-160(1)(f).
- 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(3), (6), (9), and (10). *See also*, OAR 690-11-195(3)(d), (4)(a), (4)(c)(A), (4)(d)(A), (4)(d)(B), (4)(e), and (4)(f). The proposed use may not be supported by existing groundwater supplies and is likely to deplete flows needed to for Croft Lake and other surface waters in the area. The South Coast Basin plan states:

Ground water is a significant factor in the maintenance of natural lakes in the dunes area. Extensive ground water development may affect lake water levels. Finding 5.

The total extent of the ground water supply in the basin has not been determined. Existing data suggest ground water supplies are limited and would not support irrigation in most areas. Finding 19.

Marine terrace deposits and sediments of the Coquille formation are potential ground water sources for irrigation of cranberries in the Bandon area. Finding 20.

Marine terrace deposits in the Harbor area are capable of producing large quantities of water, but some areas are approaching levels of sustained yield. Finding 21.

Income from water-related recreation is a major contributor to the economy of the South Coast Basin. Finding 39.

The natural lakes, storage reservoirs and free-flowing streams support part of the water-based recreation use. Finding 40.

The water resources, wetlands and associated habitat are critical to the subsistence and propagation of wildlife in the Basin. Finding 42.

The basin plan admits that little is known about groundwater in the basin. However, the presence of wetlands indicates that a hydraulic connection exists between groundwater and surface waters in the area and that groundwater levels are very close to the surface of the ground. Reduction in groundwater contribution to wetlands and surface waters will decrease contributions to existing wetlands and decrease inflows into the lake. Thus, groundwater in this area is vital to the maintenance of lake levels, surface water flows, and the protection of public uses of water including wildlife, recreation and fish.

- 1. 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 what is happening to the water resource. It also gives the 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.

Information about groundwater use and groundwater characteristics is especially crucial for management of the groundwater resource and surface water resources in the Croft Lake Basin. Those who benefit from using the resource should be called upon to provide information needed information about the resource. The permittee should be required to measure and report any use under this permit. In addition, the permittee should be required to measure and report water level elevations. This information is critical for resource protection and management. As a policy matter, WaterWatch believes that water use measurement and reporting should be required of every new permit issued in Oregon.

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

The groundwater resource in this area is likely connected to surface waters. However, the extent of the connection and the short and long term impacts of the connection on surface waters in the basin has not been determined. Oregon's ground water statute 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 particularly critical given the existing connection with surface waters, the relatively unpolluted condition of the surface waters, the public uses of the surface waters and the increasing pressure in this area to develop groundwater and surface water resources for irrigation of cranberry bogs.

There are at least four other pending applications pending for irrigation in this area. The Commission, in its basin plan has 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 and other pending permits should probably not be issued. At the very least, this permit must be reviewed in conjunction with the other pending applications for irrigation in the area to determine the cumulative impacts on the resource of these proposed and any existing uses. It is not in the public interest to turn a blind eye to the cumulative effects of this industry on the resource in the basin.

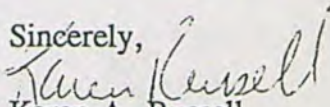
3. The use as proposed violates Oregon's statewide policies.

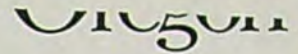
Oregon's Groundwater Management Policy requires that "(i)nterference between groundwater uses and competing groundwater and surface water uses . . . be prevented and/or controlled to protect the water resource and existing rights." OAR 690-410-010(1). The Policy also requires the State to manage groundwater 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 use as proposed to go forward violates all these policies. The Department's failure to manage the ground and surface waters conjunctively in the Croft Lake basin will only exacerbate existing overallocation problems, degrade water quality, and will, particularly in the long run, impair existing surface water rights and public uses in the basin. It is bad public policy to continue issuing groundwater rights in the face of increasing doubts as to whether increased groundwater use is sustainable.

◆ **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,

Karen A. Russell
Legal Affairs Coordinator



October 14, 1993

Karen Russell, Assistant Director
WaterWatch of Oregon
921 SW Morrison, Ste. 438
Portland OR 97205

WATER
RESOURCES
DEPARTMENT

Re: Denial Objections Application File # G-12685

Dear Ms. Russell:

The Director of the Water Resources Department has reviewed your objections to the proposed water use reported in the Satisfactory Report of Technical Review announced on Application # G-12685 submitted by Harry G. Spencer. As a result of the Director's assessment, your objections are hereby denied.

Your objections state that the Technical Report is defective because the Report fails to contain many of the elements and evaluations required in OAR 690-11-160(1).

The rules of the Water Resources Commission require that the technical review analysis include the elements contained in OAR 690-11-160(1)(a)-(h). There is no requirement that the report of technical review include those elements. In order to maintain clarity and simplicity, a number of technical review factors included in the file checklists are not contained in the reports. A technical review report is a summary of the technical evaluation conducted on a water use application.

The Technical Review conducted on Application # G-12685 did include consideration of the elements specified in OAR 690-11-160(1) as is documented by the information contained in the records of the Department, including the application file.

You also allege the use as proposed is not in the public interest. These objections do not meet the requirements set out in OAR 690-11-170(1). Your objections do not specify particular public interest standards or set forth facts which would support allegations that the proposed water use is prohibited.

These objections include an allegation that the deficiency in measuring and reporting is not in the public interest. It is the policy of the Director to require measuring and reporting conditions on all permits issued. If a permit were to be issued for Application # G-12685, it would include the following measuring, recording and reporting condition:

Before water use may begin under this permit, the permittee shall



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

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.

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 Director may require the permittee to keep and maintain a record of the amount (volume) of water used and may require the permittee to report water use on a periodic schedule as established by the Director. In addition, the Director may require the permittee to report general water use information, the periods of water use and the place and nature of use under the permit. The Director may provide opportunity for the permittee to submit alternative reporting procedures for review and approval.

You have also alleged that the proposed water use will interfere with the surface waters of the basin. The records of the Department show there is sufficient evidence to support the determination that the proposed groundwater use will not have the potential for substantial interference with the nearest surface water source. Any permit issued on Application # G-12685 would contain the following condition:

If substantial interference with a senior water right occurs due to withdrawal from any well listed on this permit, then use of water from the well(s) shall be discontinued or reduced and/or the schedule of withdrawal shall be regulated until or unless the Department approves or implements an alternative administrative action to mitigate the interference. The Department encourages junior and senior appropriators to jointly develop plans to mitigate interferences.

Additional comments or amendments to proposed conditions may be made, at the discretion of the Director, at any time prior to the decision to issue a permit or recommend rejection of the application. No permit will be issued for an application which cannot be conditioned to adequately protect the resource and senior water rights.

The Director has determined that your objections do not contain facts which establish that the Technical Review was defective nor do they identify elements of the proposed water use that may impair or be detrimental to the public interest. Therefore, the Director has denied your objections.

You may protest this denial of your objections. You have thirty (30) days from the date of this letter to file a protest. Your protest must comply with the standards set out in the Oregon Administrative Rules, Chapter 690, Division Two, Sections 030 through 080 (OAR 690-02-030 through 080).

Send your protest by regular mail or deliver it in person. Your protest must be received by the Water Resources Department in Salem, Oregon, no later than 5:00pm on or before November 15, 1993. Your protest must be in proper form and accompanied by a fee of \$25.

Protests received on time and in proper form as prescribed by the rules cited above will be referred to the Water Resources Commission for its review.

Sincerely,



A. Reed Marbut, Administrator
Water Rights and Adjudications Division

cc: Harry G. Spencer
Encl.: WaterWatch 4/28/93 Objections

Hand Delivered

November 15, 1993

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

Re: Protest of Application File G-12685, Spencer, Coos Co.,
Cranberry Use & Nursery Operations

Dear Water Rights Section:

On April 28, 1993, WaterWatch filed objections to Mr. Spencer's proposed use which raised issues relating to deficiencies in the technical report for this application as well as public interest issues. On October 14, 1993, WaterWatch received the Department's denial of WaterWatch's objections. As we stated in our earlier filed protest of application G-12692, the pressure to develop the water resources in this area for economic gains for the cranberry industry **must** be balanced with the state's duty to protect Oregon's precious coastal resources. WaterWatch is not opposed to economic growth, **as long** as that growth is accomplished within the capacity of the water resource, and in a way that protects public uses of water. These public uses of water should be protected not only because we have a duty to act responsibly toward other creatures on this earth, but also because these resources also provide economic benefits for Oregon. For the reasons outlined below, and for other reasons, we file this protest and a \$25 fee pursuant to OAR 690-11-175(5) and 690-02-030 to 080:

A. Facts

Mr. Spencer's application is for use of .356 cfs of water from wells in the South Coast Basin. The proposed wells are located within 1/4 mile surface waters (Conner Creek) next to and within existing wetlands. This application is one of over 20 pending applications for a total of over 15 cfs of water for proposed cranberry bogs in the Bandon area.

The Resource

The proposed use is located in the Croft Lake Basin in the South Coast. Croft Lake is a major tributary of the New River. *New River, Area of Critical Environmental Concern*, June 1989, Bureau of Land Management at 2 (hereinafter BLM). The New River is a unique estuarine and freshwater ecosystem utilized by a wide diversity of fish and wildlife. According to the BLM's study of the New River this River:

supports a unique mix of wildlife, fisheries, botanical, and cultural resources found in association with few other coastal rivers in the Pacific Northwest. Four species of wildlife that use the area are designated as either threatened or endangered on state or federal lists. One plant species has been identified as a candidate for federal listing, and is designated as threatened on the state list. A number of prehistoric cultural sites have been found along the banks of this drainage, and the river itself is thought to provide critical rearing habitat for juvenile salmonids.

... New River has received special attention from a variety of private, state, and federal conservation interests. The Nature Conservancy has examined New River as a candidate area for their conservation programs. . . the Oregon Natural Resources Council considers New River to be the single most important estuary in Oregon that currently is not under any comprehensive form of management. . . New River also has been identified by the U.S. Fish and Wildlife Service as a candidate site for establishing a National Wildlife Refuge. . . The Oregon Department of Fish and Wildlife has identified the area as critical habitat for the western snowy plover. . . (S)ince 1983, BLM has designated its ownership as an Area of Critical Environmental Concern (ACEC), giving the area special recognition and status for improved management of the unique resources that are present. . .

BLM at 1. Since publication of the BLM's report, the western snowy plover has listed as "threatened" under the Federal Endangered Species Act and nine additional wildlife species that utilize the New River system are either listed under the federal act, or are candidates for listing.¹

The New River supports chinook salmon, coho and other fish populations. Since this BLM report was written, coastal coho populations, which utilize coastal streams such as the New River, have been petitioned for listing under the federal Endangered Species Act. Coastal stocks of fall chinook and coastal cutthroat trout are identified by the state as species of concern. The New River provides important habitat for these species. For example, some of the best pools for fish rearing are found in the New River, below the rivers confluence with Croft Lake. *BLM* at 30. However, downstream fish migration coincides with periods of low flows which can result in high fish mortality. *BLM* at 30. For instance, juveniles trapped in isolated pools in the river:

may be subject to predation, suffocation, and heat stress. Local ranchers have observed great blue herons and kingfishers feeding on these juveniles in the shallower, isolated pools over a period of days in which the channel remained dry.

BLM at 30.

In addition to the resources identified in BLM's plan, Croft Lake and its tributaries provide habitat for a multitude of other fish and wildlife resources, including sensitive populations of searun cutthroat. Croft Lake and it's tributaries also provide recreational benefits to residents living and vacationing in the area. Streamflows into and out of the Lake maintain the water quality that is essential for these public uses of the lake.

The BLM has identified the Croft Lake area as part of the management area in the ACEC and has looked at purchasing access to the lake. *BLM* at 1 and Table 1. However, Croft lake has been shrinking over the past several years. *BLM* at 2. Existing use of water for irrigation has had significant effects on the current habitat of the New River and it's tributaries. *BLM* at 17.

The BLM has recognized that actions by state agencies, such as the Water Resource Commission have significant effects on management within this ACEC. *BLM* at 7. Commission actions on protecting minimum flows and other water use policies greatly affect the viability of this ecosystem. One of the management objectives identified by the BLM is to maintain minimum flows because:

¹ These include the Brown Pelican, Peregrine Falcon, Leatherback Sea Turtle, Aleutian Canada Goose, American Bald Eagle, Loggerhead Sea Turtle, Pacific Ridley Sea Turtle, Letherback Sea Turtle, and the red legged frog.

New River provides important rearing habitat for juvenile salmonids during summer. Channel drying during summer may coincide with downstream migration of juveniles. This may result in high mortality if juveniles become trapped in isolated pools, where they are subject to predation, temperature stress, and suffocation. Losses of juveniles during migration may preclude full use of more stable rearing habitat present downstream in estuarine portions of the ACEC.

Lack of water in the middle section of New River during summer also precludes full use of marshlands by waterfowl. During most years, water is absent from early July to early September in the areas immediately south of the ACEC. This eliminates potential habitat for rearing broods, in turn reducing the prey available to peregrine falcons and bald eagles.

BLM at 35.

Ground water in the area contributes to surface water flows needed for the above mentioned fish and wildlife species. However, the Commission's South Coast Basin Program admits that little is known about ground water in the basin and expresses doubt as to the ability of ground water supplies to support irrigation. Basin Program Finding 5, 19. Increased ground water withdrawals, under existing water rights have caused declines in both ground and surface water levels. This past summer, water level in domestic wells used by BLM and well levels at Storm Ranch dropped dramatically as a result of pumping of ground water for cranberry bogs.

The Commission's Program also recognizes that ground water is a significant factor in the maintenance of natural lakes in the basin. Program Finding 5. Ground water also contributes to wetlands and other surface waters that provide critical habitat for wildlife and fish in the basin. Finding 42. The Program recognizes the importance of lakes and streams to recreation use in the basin, a major contributor to the economy of the South Coast Basin. Program Finding 39, 40. Ground water and surface water also contribute to wetlands which are critical to the ecological integrity of the area. To date, instream water rights have been set for Croft lake or it's feeder streams, Conner and Davis Creek, or the New River. There is a pending instream water right for Floras Creek, a tributary of the New River, with a senior priority date of 11/08/90 (Mr. Spencer's application date is 10/4/91).

Proposed Use

Mr. Spencer proposes to use approximately .178 cfs for cranberry use and .1 cfs for nursery operations from two wells yearround. These wells produce water from an unconfined aquifer within a quarter mile of Conner Creek, a tributary to Croft Lake. Memo to file from Mike Zwart, October 6, 1992 and Application. The Department has concluded that "Conner Creek is likely in hydraulic connection with, and is a discharge area for this

water table." Id. There has been no analysis as to the exact amount of streamflow depletion these wells will have on Conner Creek. In addition, there are no actual measurements of streamflows in Conner Creek. WRD estimated streamflows from a model using one years worth of measurements taken at Ferry Creek. Review of this estimate by the Water Rights Section assumed that existing rights were taken into account. According to the model estimates, flows in Conner Creek are below 2 cfs during the month of May through September.

In addition to withdrawing water from the ground and surface waters, the proposed use will change the drainage patterns in the area, effecting the hydrology of the system. It will also likely involve removal of diverse native plant life found in wetlands. The proposed use will also involve the application of fertilizers and other chemicals to aid in cranberry growth. Runoff from the bogs into surface waters, and/or percolation of the chemicals into ground water will pollute waters in the area, adversely affecting public use of the water resource.

Summary

This proposed use will deplete ground and surface water quantity and water quality needed to support public uses of this sensitive coastal river system. This application is the second of many applications for use in this area. Cumulatively these applications propose to divert large quantities of water, change drainage patterns over a large area and introduce additional chemicals and fertilizers into this system. To date, there is no legal protection for flows needed to support the fish and wildlife that rely on this unique system for survival. There is also no protection for the recreational values of the resource. However, this proposed use, and others waiting to be approved, will adversely effect both individually and cumulatively on this important coastal system.

B. Relief Requested

WaterWatch requests that this application be denied, or in the alternative, sent to contested case. If this application is not denied outright, any proceeding should require that further information be developed about the characteristics of the ground water and surface waters in the area prior to the commencement of a contested case. If a contested case is scheduled, we request that review of this application be consolidated with review of other pending applications for cranberry use in this area.

C. Name and address of Persons having Interest in Proceeding

The following people are known to WaterWatch as having an interest in this proceeding:

Harry G. Spencer
P.O. Box 291
Langlois, OR 97450

Alfred C. Walsh, Jr.
Trustee owner of 220 acres surrounding Croft Lake
280 Collier
P.O. Box 99
Coquille, Oregon 97423

D. Legal Authority and Basis for Claim

This protest is filed pursuant to OAR 690-11-175(5) and 690-01-030 to 080. The Ground Water Act of 1955 requires the Department/Commission to deny permit applications unless the agency can ensure that the "public welfare, safety and health" is protected. ORS 537.620. The policies of the Ground Water Act require, among other things, that use of water be without waste and within the capacity of the resource and that "reasonably stable ground water levels be determined and maintained." ORS 537.525(3), (7). The statute also calls for protection of ground water supplies for a variety of uses (including recreation) and calls for the determination of ground water characteristics. ORS 537.525(5)(6). The Division 11, Division 9, Division 400 and Division 410 rules further refine the public welfare standards set out in the statute.

When considering this application, the agency has a duty to ensure that the proposed use will not harm either the quantity or quality of ground and surface waters. ORS 537.17-5(a) & (c), ORS 537.525(9), (11), ORS 468B.155, and ORS 468B.015. There was inadequate review of the effects on water quantity and no review of the effects on water quality. New uses of water must also be scrutinized for possible impacts on wetlands. ORS 196.669, ORS 196.672 (1). No such scrutiny has occurred.

The federal and state Endangered Species Acts also place a burden on the Commission. Under the state act the Commission is required to consult with the Oregon Department of Fish and Wildlife to ensure that any action taken by the Commission is consistent with ODFW programs to conserve the species, or, if no plan is in place, that the action will not "reduce the likelihood of the survival or recovery" of the state listed species. ORS 496.182(2). Under the federal Act, there is a prohibition against "taking" of endangered species. 16 USCA § 1538(a)(1)(B). Listing under these Acts is a sign, not only of the health of a particular species, but also a warning signal for the health of the human environment.

The proposed use will harm the public interest in the ground and surface water resource because:

- given the proximity of the wells, the presence of an unconfined aquifer and the hydraulic connection, OAR 690-090-030(4)(a). requires an assumption of substantial interference. There are two different staff determinations in the

application file which are apparently based on the same data.² The first determination concluded there was potential for substantial interference. See Memo to File G-12685 from Sarah Meyer, 12/5/91. The subsequent determination back tracked slightly, although not completely, and "tentatively" concluded that the proposed use "may have low potential for substantial interference". Memo to File from Mike Zwart, 10/6/92. Staff acknowledged that this conclusion was "a tentative conclusion, and strong permit conditions were suggested." Memo to Carol Spence from Mike Zwart, 1/16/93. However, the permit conditions do nothing to eliminate interference or protect the public uses of the surface water resource. In addition, Department staff acknowledged that the data used to make this tentative determination failed to contain "pre-test water level data", had "minimal water level recovery data," and required "assumptions to be made regarding test conditions." Memo to File from Mike Zwart, 10/6/92. Thus, the information provided by the applicant is insufficient to rebut this assumption.

In addition, there has been no determination as to the exact extent of hydraulic connection as required in ORS 690-09. Given the fragile ecosystem and the low flows in this area, the proposed use, will have effects on the hydrology of the system, both in terms of ground water withdrawals and in terms of changes in drainage patterns. This use, in connection with other pending applications and existing permitted uses will significantly impair, both on the ground water resource and the surface waters.

- There is insufficient water in the system to support this proposed use together with other pending applications, existing water rights and other public uses of water in this area. OAR 690-11-195(3).
- The water availability analysis was defective. OAR 690-11-160(1)(f). The modeled flows for Conner Creeks were based upon extensions of only one years worth of data from a different Creek. In addition, the analysis was assumed to have taken only existing water rights into account. Existing water rights total approximately 2.16 cfs, essentially all of the modeled streamflows from April to October, and a large percentage of modeled flows during the rest of the year. Given the importance of this stream system, and the already existing overappropriation, these estimates are inadequate to protect the public's interest in the resource.

² After the initial review, the applicant submitted additional data on the issue of confinement. The Department rejected that data and no additional data was submitted on the issue of interference. See Memo to File from Michael Zwart, 10/6/92

- This use will harm designated cultural areas and the BLM's Area of Critical Environmental Concern, water quality, fish, aquatic life, wildlife, and recreational use in the area. OAR 690-11-195(4)(c)(A), (d), (e), (f), (h).
- The Department failed to consult with the Oregon Department of Fish and Wildlife as required by law. In addition, there was no analysis of the effects of the proposed use on harm fish and wildlife listed under the state and federal endangered species acts.
- The proposed conditions fail to protect water resources needed for water quality, fish, aquatic life, wildlife and recreational uses and designated cultural and resource protection areas. OAR 690-11-195(4)(c)(A), (d), (e), (f), (h). For example, requiring this use to be shut off if it interferes with senior rights does nothing to protect these public uses which do not have senior water rights.
- The proposed use is contrary to ground water policies articulated in the statutes cited above and in the Commission's Ground Water Management Policy which requires prevention of ground water/surface water interference and calls for conjunctive management of the resource to protect the public's interest in the resource. OAR 690-410-010. The proposed use is contrary to other Oregon policies including the Statewide Allocation Policy which requires use within the capacity of the resource and requires that instream flow needs be considered when reviewing applications for new uses. OAR 690-410-070. The proposed use is contrary to other statewide policies including those that require protection of native fish, water quality, wetlands, and other public uses of water and call for integrated and coordinated water management. ORS 496.435, OAR 690-410-030, OAR 690-410-070, ORS 536.220(1), (2) and statutes and rules cited above.

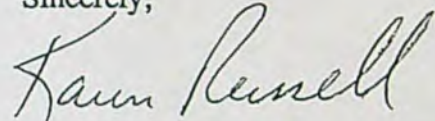
In addition, the following requirements of Division 11 and other procedural requirements were not followed:

- The Department processed this application out of order, contrary to Commission direction.
- The technical report failed to contain many of the elements and evaluations required in OAR 690-11-160(1). The Department's response in the denial letter, these elements were not included in the report in order to "maintain clarity and simplicity" is not supported in the rules. The purpose of the technical report is to give interested parties information that is crucial in order to evaluate whether or not the application is of concern.

- The Department's denial stated that the Director may "at any time prior to the decision to issue" this permit make "additional comments or amendments to" the proposed conditions for this application. This statement essentially makes it impossible for an interested party to determine whether or not their concerns have been addressed - or - if their concerns are addressed, whether or not their concerns will continue to be addressed if and when a permit is issued. This "moving target" approach to public participation does not provide the public with the ability to participate meaningfully in water allocation decisions. There is nothing in the rules that allow the Department to make changes to conditions without notice to interested parties. While we agree that as new information comes forward, the agency has a duty to ensure that conditions are modified to protect the resource, the Department should give parties in the proceeding notice and an opportunity to comment on any changes.

For the reasons outlined above, we file this protest.

Sincerely,



Karen Russell
Assistant Director

c. Burchfield, ODFW

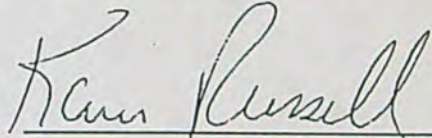
Certificate of Service

I certify that on this 15th day of November, 1993, a copy of WaterWatch's Protest of Application G-12685 was served on each of the following by first class mail, postage paid, in the United States Mail from Portland, Oregon, enclosed in a sealed envelope and addressed as follows:

Harry G. Spencer
P.O. Box 291
Langlois, OR 97450

Alfred C. Walsh, Jr.
280 Collier
P.O. Box 99
Coquille, Oregon 97423

Signed this 15 day of November, 1993


Karen Russell

PUBLIC INTEREST REVIEW

The proposed water use described in Application # G-12685 has been evaluated according to the public interest standards set out in ORS 537.170 and OAR 690-11-195.

The Application requested the use of 0.357 cfs from ~~the/a~~ two wells ~~tributary to/~~ within the South Coast Basin for the purpose(s) of cranberry use and nursery operations. The Technical Review Report limits the proposed use to 0.357 cfs of water from two wells for cranberry use on 12 acres and nursery operations on 4.0 acres

The proposed use described in Application # G-12685 is not within a category required to be submitted to the Commission.

The Director of the Water Resources Department has evaluated the Application for the proposed water use and made the following public interest determination.

TECHNICAL REVIEW

If satisfactory-

Water use Application # G-12685 received a Satisfactory Report of Technical Review.

The Technical Review revealed that the proposed water use:

- a)-is not prohibited by statute or scenic waterway criteria;
- b)-is a classified use under the applicable basin program or an application for the use has been filed under ORS 536.295 and OAR 690 Division 82;
- c)-is consistent with conditions previously imposed by the Commission on appropriations from the same source;
- d)-will not conflict with (an) existing water right(s);
- e)-is supported by an available source of water.

If unsatisfactory-

Water use Application # _____ received an Unsatisfactory Report of Technical Review.

The Technical Review conducted according to OAR 690-11-160 on the water use application revealed that the proposed water use:

- a) -is prohibited by statute or scenic waterway criteria;
- b) -is not a classified use under the applicable basin program and an application for the use has not been filed under ORS 536.295 and OAR 690, Division 82;
- c) -cannot be modified to be consistent with conditions previously imposed by the Commission on appropriations from the same source;
- d) -would conflict with (an) existing water right(s), or
- e) -water is not available from the source to support the proposed water use.

As the result of the above finding based on the Technical Review conducted on this water use Application, the Director concluded that the proposed water use would impair or be detrimental to the public interest.

na

PUBLIC INTEREST REVIEW
CHECKLIST

The Director of the Water Resources Department has evaluated the proposed water use, as described in Application # G-12685, in light of current and planned uses and reasonably anticipated future demands for water from the water source as established in the record.

The evaluation has recognized known beneficial uses of water, including but not limited to the categories described in OAR 690-11-195(3)(a)-(d).

The Director has reviewed the elements of the proposed water use and has based the public interest determination on evidence in the record which included the following:

I. Existing claims to water from the same source.

SB There are no conflicts with existing claims to water from the same source as is documented in the Report of Technical Review.

Comment: _____

II. Land use matters.

SB The local government where the proposed water use is located has acknowledged receipt of the Land Use Information Form and has filed no objections to the proposed appropriation.

Comment: _____

SB

Public notice of the proposed water use was sent to all local governments which have requested such notice and none of those local governments have filed objections to the proposed water use.

Comment: _____

SB

There is nothing in the record to indicate the proposed water use is incompatible with Statewide Planning Goals or local comprehensive plans.

Comment: _____

n/a

If local government approval has not been granted, there is nothing in the record to indicate conditions cannot be placed on the proposed water use to require local land use approval prior to initiation of the use.

Comment: _____

n/a

An applicant for municipal water use has submitted information showing the proposed water use is compatible with comprehensive plan policies concerning urban services, urban growth boundaries, and Public Facilities Plans.

Comment: _____

III. Identified environmental concerns.

SB

The proposed water use does not appropriate water from any water body listed to receive Total Maximum Daily Loads and therefore, the water body has not been defined as water quality limited according to Section 303(d)(1) of the federal Clean Water Act according to the information supplied by the Oregon Department of Environmental Quality.

Comment: _____

IV. The character and extent of other natural resources which are present in the water source basin.

SB

The Oregon Department of Fish and Wildlife (ODFW) has been notified of the proposed water use and has made no objections regarding fish and other aquatic and wildlife species and populations.

Comment: _____

SB

There are no listed threatened or endangered species in the water source according to the information supplied by the Oregon Department of Fish and Wildlife.

Comment: _____

V. Riparian characteristics.

SB

There is nothing in the record to indicate the proposed use is likely to be detrimental to the riparian characteristics of the water source. This riparian review is not applicable to groundwater sources.

Comment: _____

VI. Recreational use and potential of the water source and its basin area.

SB

There is nothing in the record to indicate a conflict with known or reasonably anticipated recreational use.

Comment: _____

VII. Agricultural potential of the area.

SB

There is nothing in the record to indicate the proposed water use will conflict with known or reasonably anticipated agricultural practices.

Comment: _____

VIII. Designated historic, cultural, or natural resource protection areas.

80

There is nothing in the record to indicate any conflict with any known or reasonably anticipated historic, cultural, or natural resource designations.

Comment: _____

IX. Identified health or safety requirements.

80

There nothing in the record to indicate any identified health and safety requirements.

Comment: _____

**PUBLIC INTEREST REVIEW
FINDINGS AND CONCLUSIONS**

This public interest determination has considered the following standards as set out in ORS 537.170(5):

- a) The conservation of the highest use of the water for all purposes, including irrigation, domestic use, municipal water supply, power development, public recreation, protection of commercial and game fishing and wildlife, fire protection, mining, industrial purposes, navigation, scenic attraction or any other beneficial use to which the water may be applied for which it may have a special value to the public.
- b) The maximum economic development of the waters involved.
- c) The control of the waters of this state for all beneficial purposes, including drainage, sanitation and flood control.
- d) The amount of waters available for appropriation for beneficial use.
- e) The prevention of wasteful, uneconomic, impracticable or unreasonable use of the waters involved.
- f) All vested and inchoate rights to the waters of this state or to the use of the waters of this state, and the means necessary to protect such rights.
- g) The state water resources policy formulated under ORS 536.295 to 536.350 and 537.505 to 537.525.

The Director of the Water Resources Department, pursuant to OAR 690-11-185(4), has considered the facts set forth in the Application and its supporting data, the Director's Report of Technical Review and any objections which met the requirements of OAR 690-11-170(1).


The Director of the Water Resources Department has evaluated the proposed water use with respect to the information in the record

of the Department and has made the following public interest determination.

The Director has determined that the proposed water use described in Application # G-12685:

_____ WILL IMPAIR OR BE DETRIMENTAL TO THE PUBLIC INTEREST and therefore, the Director hereby proposes rejection of the application and shall schedule a contested case hearing.

83 WILL NOT IMPAIR OR BE DETRIMENTAL TO THE PUBLIC INTEREST and therefore, the Director shall issue a water use permit with appropriate conditions.


A. Reed Marbut, Administrator
Water Rights/Adjudication Division

Dated : September 1, 1994

OAR Chapter 690, Division 11 Excerpts

Public Interest Review

690-11-185 (1) Each water use application shall be evaluated to determine whether the proposed use may impair or be detrimental to the public interest according to the standards described in ORS 537.170 and OAR 690-11-195.

(2) The following categories of applications shall be submitted to the Commission for determination as to whether the proposed water use may impair or be detrimental to the public interest:

(a) Appropriations for consumptive or out-of-stream uses of water in amounts greater than ten cubic feet per second (cfs);

(b) Diversions or appropriation of waters from basin of origin pursuant to ORS 537.801 to 537.850;

(c) Dams greater than 25 feet in height or impounding more than 100 acre-feet of water;

(d) Conditional uses under a basin program;

(e) Artificial groundwater recharge;

(f) Applications for use of water from a surface water source or its tributaries where the Department has been notified of the presence of a species listed as threatened or endangered under either the United States or Oregon Endangered Species Act which may be adversely affected by the water uses identified in the application; or

(g) Applications on which protests have been filed pursuant to OAR 690-11-175(5).

(3) The Director shall evaluate all applications for water use not identified in section (2) of this rule to determine whether the proposed water use may impair or be detrimental to the public interest.

(4) In determining whether the proposed water use may impair or be detrimental to the public interest under the standards set out in ORS 537.170(5) and OAR 690-11-195, the Commission, in cases described in section (2) of this rule, or the Director, in cases described in section (3) of this rule, shall consider the facts set forth in the following documents:

(a) The application and supporting data;

(b) The Director's report of technical review;

(c) Objection(s) that meet the requirements of OAR 690-11-170(1); and

(d) Protest(s) filed pursuant to OAR 690-11-175(5) and (6).

(5) If no objection or protest has been filed, the Commission shall not receive public testimony during its review of the proposed water use, unless the testimony relates to an issue that could not have been identified in an objection or protest.

(6) If an objection or protest has been timely filed, the Commission may, but is not required to, hear public testimony during its review of the proposed water use.

(7) If the Commission, in cases described in section (2) of this rule, or the Director, in cases described in section (3) of this rule, determines that the proposed water use described in the application may impair or be detrimental to the public interest, the Commission or Director shall schedule a contested case hearing. Such hearing shall be conducted according to the provisions for a contested case hearing under ORS 183.413 to 183.497 and OAR Chapter 690, Division 2.

(8) If the Commission, in cases described in section (2) of this rule, or the Director, in cases described in section (3) of this rule, determines that the proposed water use described in the application will impair or be detrimental to the public interest, the Commission or Director shall propose rejection and schedule a contested case hearing. Such hearing shall be conducted according to the provisions for a contested case hearing under ORS 183.413 to 183.497 and OAR Chapter 690, Division 2.

(9) If the Commission, in cases described in section (2) of this rule, or the Director, in cases described in section (3) of this rule, finds that the proposed water use will not impair or be detrimental to the public interest, a water use permit shall be issued.

Stat. Auth.: ORS 536.025, 536.027, 536.220, 536.300, 536.310, 537.338 & 537.356
- 537.358

Hist.: WRD 9-1992, f. & cert. ef. 7-1-92

Standards for Public Interest Review

690-11-195 (1) The Commission, in cases described in OAR 690-11-185(2), or the Director, in cases described in OAR 690-11-185(3), shall weigh the effect of the proposed water use on each of the standards set out in ORS 537.170(5) to assess impairment or detriment to the public interest.

(2) The Commission, in cases described in OAR 690-11-185(2), or the Director, in cases described in OAR 690-11-185(3), shall conclude that a proposed water use will impair or be detrimental to the public interest under ORS 537.170(5) if the technical review conducted under OAR 690-11-160 reveals that:

(a) The proposed water use is prohibited by statute or scenic waterway criteria;

(b) The proposed water use is not a classified use under the applicable basin program and an application for the use has not been filed under ORS 536.295 and OAR Chapter 690, Division 82;

(c) The proposed water use cannot be modified to be consistent with conditions previously imposed by the Commission on appropriations from the same source;

(d) The proposed water use would conflict with existing water right; or

(e) Water is not available from the source to support the proposed water use.

(3) In applying the standards set forth in ORS 537.170(5), the Commission, in cases described in OAR690-11-185(2), or the Director, in cases described in OAR690-11-185(3), shall evaluate the proposed water use in light of current uses, planned uses and reasonably anticipated future demands for water from the source as established in the record. The evaluation shall recognize all known beneficial uses of water, including but not limited to the following categories:

(a) Population growth demands for domestic and municipal uses;

(b) Economic development for agriculture, navigation, manufacturing, industry, power generation, commercial fishing, forestry and mining;

(c) Health and safety requirements for sanitation, drainage, flood control, and fire protection; and

(d) Public values and uses for recreation, pollution abatement, fish and wildlife resources, and scenic waterway protection.

(4) The public interest determination shall be based on evidence which may include, but is not limited to, the following:

(a) Existing claims to water from the same source, including but not limited to:

(A) Existing decreed rights;

(B) Existing certified rights;

(C) Existing permits;

(D) Pending applications;

(E) Existing vested or inchoate rights of record;

(F) Indian reserved rights or claims; and

(G) Federal reserved rights or claims.

(b) Land use goals, comprehensive plans, or other land use matters. Public interest determinations relating to land use may be based on, but not necessarily limited to:

(A) Statewide Planning Goals;

(B) Comprehensive Land Use Plans, including plan assumptions and policies;

(C) Public Facilities Plans;

(D) Current, planned, or reasonably anticipated uses for land;

(E) Local government administrative provisions, regulations, or approvals including zoning designations, filed land division plans or plats, or issued building permits;

(F) Projected changes in population, industrial or manufacturing bases, or economic trends; or

(G) Land management plans prepared by federal or state agencies.

(c) Identified environmental concerns, including but not limited to:

(A) Water quality;

(B) Air pollution;

(C) Proximity of urban or transportation congestion; and

(D) Soil contamination.

(d) Character and extent of other natural resources which are present in the water source basin, including but not limited to:

(A) Fish and other aquatic species and population;

(B) Wildlife species and population;

(C) Timber and other woody plant cover;

(D) Grasses and forbs;

(E) Minerals; and

(F) Geothermal energy.

(e) Riparian and aquatic fauna and flora characteristics;

(f) Recreational use and potential of the water source and its basin area;

(g) Agricultural potential of the area, including but not limited to an assessment of the following:

(A) Crop or livestock production potential including dairy operation;

(B) Soil, topographic, and climatic characteristics;

(C) Transportation and market access; and

(D) Community and support facilities of the area.

(h) Designated historic, cultural, or natural resource protection areas; and

(i) Identified health or safety requirements.

Stat. Auth.: ORS 536.025, 536.027, 536.220, 536.300, 536.310, 537.338 & 537.356
- 537.358

Hist.: WRD 9-1992, f. & cert. ef. 7-1-92

August 23, 1994

Ronald S. Yockim, Esq.
Benjamin Lombard Jr., Esq.
P.O. Box 218
Roseburg, OR 97470

RE: Water Right Applications G-12685 (Spencer) and
R-71841 and 71842 (Fraser)

Dear Messrs Yockim and Lombard:

Please accept my apology for the delay in response to your correspondence on the status of the above referenced applications. As you know, there are a number of pending applications for use of water for cranberry production in the New River Basin. Before I address the Spencer and Fraser applications, I would like to describe our plan for completion of processing all of these applications.

There are 21 applications filed by 12 applicants on tributaries of the New River above Croft Lake. We have completed technical reviews on 19 of the 21 applications. Objections have been filed on all 19 of the technical reviews. We have denied four of the objections filed against the 19 applications. All four of these denials have been protested.

Of these 21 applications, eight are groundwater applications, six are reservoir applications and seven are secondary applications for use of the reservoir water. Of the two groundwater applications, six were found to have the potential for substantial interference with surface water in the New River drainage and the other two were found not to have the potential for substantial interference with surface water.

Of the four that have received protests, we propose to present the two that do not have the potential for substantial interference with surface water to the Water Resources Commission at its September 8 - 9, 1994 meeting. These applications are G-12685 (the above-referenced Spencer groundwater application), and G-12692 in the name of Warnock.



Ronald S. Yockim, Esq.
Benjamin Lombard, Esq.
August 23, 1994
Page Two

As to all the other applications, we propose to offer alternative dispute resolution to these applicants to resolve a number of issues related to further out-of-stream appropriation of water in the New River Basin.

The objections raise number of issues concerning the proposed water uses described in the technical reviews. I will not attempt to recite all of the precise issues here; however, there are a number of issues raised by the objectors that we feel can be addressed in a dispute resolution forum. In addition, the United States Bureau of Land Management issued its Draft Management Plan for the New River Area of Critical Environmental Concern (ACEC). This Plan describes a number of water related environmental issues that should be evaluated as a part of our application review procedure. We feel this plan can serve as a valuable tool during the dispute resolution discussions.

As you will recall, the dispute resolution procedure set out in our Division 11 rules is entirely voluntary (I have enclosed a copy of our Division 11 rules for your convenience). We intend to offer this process to all of the applicants who propose to use either surface water or groundwater that has the potential for surface water interference. Al Cook, our Southwest Region Manager, will be the Department's contact person for the dispute resolution process. For those that wish to participate in the dispute resolution process, Mr. Cook will set up discussion schedules to meet the needs of the applicants and interested parties. Hopefully, we can resolve most of the issues and move forward on the applications without the need for the formal protest procedure.

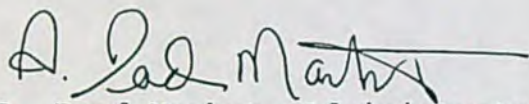
We envision the discussion parties will include the applicants, the objectors, the Bureau of Land Management and a representative of the Department. If other individuals should be included in the discussions to insure complete resolution of all issues we should be sure to identify such parties before we begin discussions.

Ronald S. Yockim, Esq.
Benjamin Lombard, Esq.
August 23, 1994
Page Three

In conclusion, Mr. Spencer's application (G-12685) is scheduled for the September 8 - 9, 1994 Water Resources Commission meeting. We will forward a copy of the Commission staff report to you as soon as it is prepared. The Fraser applications (R-71841 and 71842) are not scheduled for the September Commission meeting. Mr. Fraser will be offered alternative dispute resolution.

If you have further questions, please give me a call.

Sincerely,



A. Reed Marbut, Administrator
Water Rights/Adjudication Division

ARM/dpc

Enclosure

cc: Harry G. Spencer
Russell Fraser
Roderick Fraser
Stephen D. Warnock
Al Cook, OWRD

December 27, 1991

Harry G. Spencer
P.O. Box 291
Langlois, Oregon 97450

REFERENCE: File G-12685

Your application for a permit to use the public waters has been reviewed.

A "draft" permit is enclosed for your consideration. In the preparation of this draft permit, our staff has considered any public or agency comments received, as well as all pertinent Oregon laws, administrative rules and Commission policies.

We are now ready to recommend the issuance of a permit approving your request to use water. The draft permit enclosed contains all of the conditions and limitations that would appear on your permit, if issued.

Please review the draft permit carefully. If you are satisfied that the draft adequately describes your proposed use of water, and the terms are acceptable to you, please sign the draft copy in the spaces(s) provided and return it to us within 30 days. When we receive your signed draft, we will issue your permit as quickly as possible.

If you do not agree with, or cannot accept one or more of the terms or conditions as stated in the enclosed draft, you should advise us immediately. In this event, we will then advise you of any options which may be available to you.

If you have any questions, please contact the Water Rights Section at 378-3066.

409

enclosure



DRAFT

STATE OF OREGON

COUNTY OF COOS

PERMIT TO APPROPRIATE THE PUBLIC WATERS

THIS PERMIT IS HEREBY ISSUED TO

HARRY G. SPENCER
P.O. BOX 291
LANGLOIS, OREGON 97450

503-347-4114

to use the waters of TWO WELLS in the CROFT LAKE BASIN for CRANBERRY OPERATIONS ON 12 ACRES AND NURSERY OPERATIONS ON 4.0 ACRES.

This permit is issued approving Application G-12685. The date of priority is OCTOBER 4, 1991. The use is limited to not more than 0.356 CUBIC FOOT PER SECOND (CFS), BEING 0.178 CFS FOR CRANBERRIES AND 0.008 CFS FOR NURSERY FROM WELL 1 AND 0.178 CFS FOR CRANBERRIES AND 0.100 CFS FOR NURSERY FROM WELL 2, or its equivalent in case of rotation, measured at the wells.

The wells are located as follows:

SE 1/4 SE 1/4, SECTION 11, T 30 S, R 15 W, W.M.; WELL 1 - 1030 FEET NORTH AND 750 FEET WEST, WELL 2 - 5 FEET NORTH AND 20 FEET WEST, BOTH FROM SE CORNER, SECTION 11.

The amount of water diverted for CRANBERRY OPERATIONS, together with amounts secured under any other rights existing for the same lands, is limited as follows: For temperature control, 0.15 cubic foot per second per acre; For flood harvesting or pest control, 0.05 cubic foot per second per acre; For irrigation of cranberries, ONE-FORTIETH of one cubic foot per second and 3.0 acre-feet per acre for each acre irrigated during the irrigation season of each year. For the irrigation of any other crop, ONE-EIGHTIETH of one cubic foot per second and 2.5 acre-feet per acre for each acre irrigated during the irrigation season of each year.

The amount of water used for NURSERY OPERATIONS is limited to a diversion of 0.15 cubic foot per second per acre. For the irrigation of containerized nursery plants, the amount of water diverted is limited to ONE-FORTIETH of one cubic foot per second (or its equivalent) and 5.0 acre feet per acre per year. For the irrigation of in ground nursery plants the amount of water diverted is limited to ONE-EIGHTIETH of one cubic foot per second (or its equivalent) and 2.5 acre feet per acre per year. The use of water for NURSERY OPERATIONS may be made at anytime of the year that the use is beneficial. For the irrigation of any other crop, the amount of water diverted is limited to ONE-EIGHTIETH of one cubic foot per second (or its equivalent) and 2.5 acre feet per acre during the irrigation season of each year. 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:

	CRANBERRY	NURSERY
SE 1/4 SE 1/4	10.0 ACRES	4.0 ACRES
	SECTION 11	
NW 1/4 NE 1/4	2.0 ACRES	
	SECTION 13	
TOWNSHIP 30 SOUTH, RANGE 15 WEST, W.M.		



**GROWTH UNLIMITED
TREE FARM NURSERY, Inc.**

HARRY SPENCER, Proprietor President
P.O. BOX 291
LANGLOIS, OR 97450

Reforestation stock and
ornamental plantings. Research
in growth and species adaptation.

(503) 347-4114

RECEIVED

OCT 21 1991

WATER RESOURCES DEPT.
SALEM, OREGON

10/17/91

State of Oregon
Water Resources Dept.

Reference: File (s) 6-12685

Gentlemen:

Regarding the above referenced File No.
for a water right application I submitted 9/30/91,
I thank you for your 10/11/91 notification of
receipt of application and fees.

Enclosed are the two items that I noted
would follow when I applied:

1. The groundwater geologist's report
on Well # 2 in the SE Cor. Sec. 11
T. 30 S R. 15 W, by Russell Ralls.
2. The Oregon State Highway Permit # 07M36015
for our 4" PVC pipeline crossing of Highway 101.

These items should complete all submissions
needed for this application, per CWRE Jim
Gosson's letter of 9/20/91 enclosed with the
applications. If there are any questions,
please contact me at the above phone or address.

I would appreciate action on this application
before the end of this year if possible. We
need to complete property transfers based on

whether we get these water rights, and plant cranberry vines in January on prepared bags and water developments that hinge on getting these rights, and already have appreciable expenditures.

I might mention that I have reviewed the basic mechanics and system shown in this application with John Drollet, watermaster in Coquille, and they met with his approval. I realize that is only part of the process.

If you wish to contact Russell Palls, the Geologist who made the hydrologic reports on the wells, his phone number and address are on the reports.

If you need anything further, please contact me.

Sincerely yours,

Harry Spencer

P.S. I also enclose a letter from Russell Palls, Geologist, regarding the possibility of drilling future wells, and where they could be located without hydrologic connection with Conner Creek as well.

Other Enclosures:

- Palls hydrologic evaluation of Well #2 in SE corner of Sec. 11, T. 30S, R. 15W.
- Copy of Oregon State Highway Permit # 07M36015 for our water line.

Harry G. Spencer
P.O. Box 291
Langlois, Or.
97450

Oregon Water Resources Dept.
Salem, Or.
97310

RECEIVED

AUG 24 1995

WATER RESOURCES DEPT.
SALEM, OREGON

Gentlemen:

Enclosed are second copies, signed, of
my A&B Notifications for Permit No. G-11826
Application No. G-12685

I am sending these second copies because I
think I may have failed to sign the first
copies that I mailed Aug. 17, 1995. Please retain
only signed copies in my file.

Thank you,

Harry G. Spencer

NOTICE OF COMPLETION OF CONSTRUCTION

Harry G. Spencer, the holder of Permit No. G-11826

appropriate the public waters of the state of Oregon, completed the construction of the works described therein on the 15th day of November, 1994

Remarks: We now have the bags built, all pipe underground installed, If the works have less capacity than described in the permit, or you have definitely abandoned part of the proposed develop-

ment, you should so state in order that our records may not be unnecessarily encumbered.

IN WITNESS WHEREOF, I have hereunto set my hand this 19th day of November, 1994

Harry G. Spencer (Signature of Applicant)

P.O. Box 291, Langlois, Or. 97450 (Address)

Fill out, detach and mail to the Water Resources Department, Salem, OR 97310, when construction work is completed.

AUG 24 1995

WATER RESOURCES DEPT. SALEM, OREGON

NOTICE OF BEGINNING OF CONSTRUCTION

I, Harry G. Spencer, the holder of Permit No. G-11826to appropriate the public waters of the state of Oregon, began the actual construction of the works described therein on the 15th day of November, 1994 Jim Mack, Well driller.Remarks: We had the wells drilled for testing earlier (see Ralls Reports)

The appropriator must state the manner of beginning 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

We have now completed pump houses at both wells, and buried PVC mainlines

authorized by your permit.

IN WITNESS WHEREOF, I have hereunto set my hand this 4th day of November, 1994Harry G. Spencer
(Signature of Applicant)P.O. Box 291, Langlois, Or, 97450
(Address)

Fill out, detach and mail to the Water Resources Department, Salem, OR 97310, when construction work is begun.

RECEIVED

AUG 24 1995

WATER RESOURCES DEPT.
SALEM, OREGON

STATE OF OREGON

COUNTY OF COOS

PERMIT TO APPROPRIATE THE PUBLIC WATERS

THIS PERMIT IS HEREBY ISSUED TO

Harry G. Spencer
P.O. Box 291
Langlois, OR 97450

503-347-4114

to use the waters of Wells 1 and 2 in the CROFT LAKE BASIN for Nursery Operations on 4.0 acres and Cranberry Operations on 12.0 acres.

This permit is issued approving Application G-12685. The date of priority is OCTOBER 4, 1991. The use is limited to not more than 0.356 CUBIC FEET PER SECOND (cfs); being 0.178 cfs for cranberry operations and 0.008 cfs for nursery operations from well 1 and 0.178 cfs for cranberry operations and 0.10 cfs for nursery operations from well 2 provided the total quantity of water diverted shall not exceed 0.356 cfs, or its equivalent in case of rotation, measured at the wells.

The wells are located as follows:

SE 1/4 SE 1/4, Section 11, Township 30 South, Range 15 West, WM;
Well 1 - 1030 feet North and 750 feet West; Well 2 - 5 feet North and 20 feet West, both from the SE corner of Section 11.

The amount of water diverted for CRANBERRY OPERATIONS, together with amounts secured under any other rights existing for the same lands, is limited as follows: For temperature control, 0.15 cubic foot per second per acre; For flood harvesting or pest control, 0.05 cubic foot per second per acre; For irrigation of cranberries, ONE-FORTIETH of one cubic foot per second and 3.0 acre-feet per acre for each acre irrigated during the irrigation season of each year. For the irrigation of any other crop, ONE-EIGHTIETH of one cubic foot per second and 2.5 acre-feet per acre for each acre irrigated during the irrigation season of each year.

The amount of water used for NURSERY OPERATIONS is limited to a diversion of 0.15 cubic foot per second per acre. For the irrigation of **containerized nursery plants**, the amount of water diverted is limited to ONE-FORTIETH of one cubic foot per second (or its equivalent) and 5.0 acre feet per acre per year. For the irrigation of **in ground nursery plants** the amount of water diverted is limited to ONE-EIGHTIETH of one cubic foot per second (or its equivalent) and 2.5 acre feet per acre per year. The use of water for NURSERY OPERATIONS may be made at anytime of the year that the use is beneficial. For the irrigation of **any other crop**, the amount of water diverted is limited to ONE-EIGHTIETH of one cubic foot per second (or its equivalent) and 2.5 acre feet per acre during the irrigation season of each year.

If substantial interference with a senior water right occurs due to withdrawal of water from any well listed on this permit, then use of water from the well(s) shall be discontinued or reduced and/or the schedule of withdrawal shall be regulated until or unless the Department approves or implements an alternative administrative action to mitigate the interference. The Department encourages junior and senior appropriators to jointly develop plans to mitigate interferences.

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

	Cranberry Operations	Nursery Operations
SE 1/4 SE 1/4 SECTION 11	10.0 Acres	4.0 Acres
NW 1/4 NE 1/4 SECTION 13	2.0 Acres	

TOWNSHIP 30 SOUTH, RANGE 15 WEST, WM

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

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

The wells 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 wells at all times.

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 November , 1995, and shall be completed on or before October 1, 1996. Complete application of the water shall be made on or before October 1, 1997.

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 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 September 9, 1994.

This permit is issued to correct scrivener errors and supersedes permit G-11826.

Issued this date, November , 1994.

*for well location
and place of use
and permit conditions*

Water Resources Department
Martha O. Pagel
Director

Application G-12685 Water Resources Department
Basin 17 Volume 3 Croft Lake & Misc.
G-12685.SB

PERMIT G-[REDACTED]
District 19

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OCT - 3 1997

WATER RESOURCES DEPT.
ALEX. GLENN

Receipt for Request for Land Use Information

WRD Applicant Name: X Harry D. Spencer

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: Coos

Staff Contact: Planning Technician Phone: 396-3121, X210

Signature: Sheila Wilson Date of Information Request: 9/30/97

Application No. 6-12685

Permit No.

Oregon Water Resources Department
3850 Portland Rd. NE
Salem, OR 97310
378 - 3671

Version: 8/27/90

Description of Water Use

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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.

WATER RESOURCES DEPT.

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: Harry G. Spencer
 Address: P. O. Box 291
Langlois, Oregon 97450
 Phone: 503/347-4114

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): _____
- Commercial (i.e., retail, office, restaurant, gas station, hotel, service, 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): cranberry use and nursery operations

Indicate sources for the proposed water use below:	Indicate the estimated quantity of water the use will require.
<input type="checkbox"/> Surface Water Name sources: _____ _____ _____	<u>0.357</u> Cubic feet per second. <u>160</u> Gallons per minute. _____ Acre-Feet
<input type="checkbox"/> Reservoir or pond	
<input checked="" type="checkbox"/> Ground Water	

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

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OCT - 3 1991

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: Harry G. Spencer
 Address: P. O. Box 291
 City: Langlois State: OR Zip: 97450 Day Phone: 503/347-4114

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 (e.g. Rural Residential/RR-5)	Check All That Apply		
		Water Diverted	Water Conveyed	Water Use
13644.00	30-15-11 1600 "F"	x	x	x
13657.00	30-15-13 100 "F"		x	x
13657.04	30-15-13 103 "F"		x	
			?	
13652.06	30-15-12 1501 "EFU"		x	
13652.00	30-15-12 1500 "EFU"		x	
13652.90			x	

Coos County, Oregon

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 Land Use Approvals Needed (e.g.: plan amendments, rezones, conditional use permits, etc.)	Cite Most Significant, Applicable Plan Policies & Ordinance Section References	Please check the box that applies:		
		Already Obtained	Already Denied	Being Pursued Satisfactorily

(over)

Receipt for Request for Land Use Information

WRD Applicant Name: X Harry G. Spencer

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: Coos

Staff Contact: Planning Technician Phone: 396-3121, X210

Signature: Shila Wilson Date of Information Request: 9/30/91

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OCT - 3 1991

WATER RESOURCES DEPT.
SALEM, OREGON

(For Local Use Continued)

b) Please provide printed name and written signature.

Name: _____

Date: _____

Title: _____

Phone: _____

Signature: _____

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:

Lined area for additional comments.

DRAFT

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JAN - 3 1992

WATER RESOURCES DEPARTMENT

STATE OF OREGON

COUNTY OF COOS

PERMIT TO APPROPRIATE THE PUBLIC WATERS

THIS PERMIT IS HEREBY ISSUED TO

HARRY G. SPENCER
P.O. BOX 291
LANGLOIS, OREGON 97450

503-347-4114

to use the waters of TWO WELLS in the CROFT LAKE BASIN for CRANBERRY OPERATIONS ON 12 ACRES AND NURSERY OPERATIONS ON 4.0 ACRES.

This permit is issued approving Application G-12685. The date of priority is OCTOBER 4, 1991. The use is limited to not more than 0.356 CUBIC FOOT PER SECOND (CFS), BEING 0.178 CFS FOR CRANBERRIES AND 0.008 CFS FOR NURSERY FROM WELL 1 AND 0.178 CFS FOR CRANBERRIES AND 0.100 CFS FOR NURSERY FROM WELL 2, or its equivalent in case of rotation, measured at the wells.

The wells are located as follows:

SE 1/4 SE 1/4, SECTION 11, T 30 S, R 15 W, W.M.; WELL 1 - 1030 FEET NORTH AND 750 FEET WEST, WELL 2 - 5 FEET NORTH AND 20 FEET WEST, BOTH FROM SE CORNER, SECTION 11.

The amount of water diverted for CRANBERRY OPERATIONS, together with amounts secured under any other rights existing for the same lands, is limited as follows: For temperature control, 0.15 cubic foot per second per acre; For flood harvesting or pest control, 0.05 cubic foot per second per acre; For irrigation of cranberries, ONE-FORTIETH of one cubic foot per second and 3.0 acre-feet per acre for each acre irrigated during the irrigation season of each year. For the irrigation of any other crop, ONE-EIGHTIETH of one cubic foot per second and 2.5 acre-feet per acre for each acre irrigated during the irrigation season of each year.

The amount of water used for NURSERY OPERATIONS is limited to a diversion of 0.15 cubic foot per second per acre. For the irrigation of **containerized nursery plants**, the amount of water diverted is limited to ONE-FORTIETH of one cubic foot per second (or its equivalent) and 5.0 acre feet per acre per year. For the irrigation of **in ground nursery plants** the amount of water diverted is limited to ONE-EIGHTIETH of one cubic foot per second (or its equivalent) and 2.5 acre feet per acre per year. The use of water for NURSERY OPERATIONS may be made at anytime of the year that the use is beneficial. For the irrigation of **any other crop**, the amount of water diverted is limited to ONE-EIGHTIETH of one cubic foot per second (or its equivalent) and 2.5 acre feet per acre during the irrigation season of each year.

= .0125 cfs

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:

	CRANBERRY	NURSERY
SE 1/4 SE 1/4	10.0 ACRES	4.0 ACRES
	SECTION 11	
NW 1/4 NE 1/4	2.0 ACRES	
	SECTION 13	
TOWNSHIP 30 SOUTH, RANGE 15 WEST, W.M.		

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JAN - 3 1992

DRAFT

WATER RESOURCES DEPT.
SPECIAL OPERATIONS

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 , 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,.

Water Resources Department
William H. Young
Director

I, Harry G. Spencer, hereby understand and agree that this draft permit describes the full extent of water use that will be allowed approving Application g-12685. By signature below, I agree to the proposed terms and conditions for this draft permit.

Harry G. Spencer
Signature

1/1/92
Date

IMPORTANT MESSAGE

FOR Reed + Dwight

DATE 11/9 TIME 4:35 A.M. P.M.

M Harvy Spencer

OF _____

PHONE 347-4114
AREA CODE NUMBER EXTENSION

FAX

MOBILE _____
AREA CODE NUMBER TIME TO CALL

TELEPHONED <input checked="" type="checkbox"/>	PLEASE CALL <input checked="" type="checkbox"/>
CAME TO SEE YOU <input type="checkbox"/>	WILL CALL AGAIN <input type="checkbox"/>
WANTS TO SEE YOU <input type="checkbox"/>	RUSH <input type="checkbox"/>
RETURNED YOUR CALL <input type="checkbox"/>	WILL FAX TO YOU <input type="checkbox"/>

MESSAGE TYPOS on

~~app 6-12685 permit
on 6-11826~~

- sec #'s

Sec. 11 not sec. 1
(see attached)

SIGNED _____

G-11826

STATE OF OREGON

COUNTY OF COOS

PERMIT TO APPROPRIATE THE PUBLIC WATERS

RECORDED

NOV - 3 1994

THIS PERMIT IS HEREBY ISSUED TO

HARRY G. SPENCER
P.O. BOX 291
LANGLOIS, OR 97450

WATER RESOURCES DEPARTMENT
SALEM, OREGON
503-347-4114

to use the waters of WELLS 1 AND 2 in the CROFT LAKE BASIN for NURSERY OPERATIONS OF 4.0 ACRES AND CRANBERRY OPERATIONS OF 12.0 ACRES.

This permit is issued approving Application G-12685. The date of priority is OCTOBER 4, 1991. The use is limited to not more than 0.356 CUBIC FOOT PER SECOND (CFS); being 0.178 cfs for cranberry operations and 0.008 cfs for nursery operations from well 1 and 0.178 cfs for cranberry operations and 0.10 cfs for nursery operations from well 2 provided the total quantity of water diverted shall not exceed 0.356 cfs, or its equivalent in case of rotation, measured at the wells.

The wells are located as follows:

SE 1/4 SE 1/4, Section 11, T 30 S, R 15 W, WM; Well 1 - 1030 feet north and 750 feet west, from SE corner Section 11; WELL 2 - 5 feet north and 20 feet west, from SE corner Section 11.

The amount of water diverted for CRANBERRY OPERATIONS, together with amounts secured under any other rights existing for the same lands, is limited as follows: For temperature control, 0.15 cubic foot per second per acre; For flood harvesting or pest control, 0.05 cubic foot per second per acre; For irrigation of cranberries, ONE-FORTIETH of one cubic foot per second and 3.0 acre-feet per acre for each acre irrigated during the irrigation season of each year. For the irrigation of any other crop, ONE-EIGHTIETH of one cubic foot per second and 2.5 acre-feet per acre for each acre irrigated during the irrigation season of each year.

The amount of water used for NURSERY OPERATIONS is limited to a diversion of 0.15 cubic foot per second per acre. For the irrigation of containerized nursery plants, the amount of water diverted is limited to ONE-FORTIETH of one cubic foot per second (or its equivalent) and 5.0 acre feet per acre per year. For the irrigation of in ground nursery plants the amount of water diverted is limited to ONE-EIGHTIETH of one cubic foot per second (or its equivalent) and 2.5 acre feet per acre per year. The use of water for NURSERY OPERATIONS may be made at anytime of the year that the use is beneficial. For the irrigation of any other crop, the amount of water diverted is limited to ONE-EIGHTIETH of one cubic foot per second (or its equivalent) and 2.5 acre feet per acre during the irrigation season of each year.

If substantial interference with a senior water right occurs due to withdrawal of water from any well listed on this permit, then use of water from the well(s) shall be discontinued or reduced and/or the schedule of withdrawal shall be regulated until or unless the Department approves or implements an alternative administrative action to mitigate the interference. The Department encourages junior and senior appropriators to jointly develop plans to mitigate interferences.

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

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

	Cranberry Operations	Nursery Operations
SE 1/4 SE 1/4 Section 11	10.0 Acres	4.0 Acres
NW 1/4 NE 1/4 Section 13	2.0 Acres	

Township 30 South, Range 15 West, WM

Application G-12685 Water Resources Department PERMIT G-11826

Wh #19

Both from the SE corner of Section 11.

17-3 Croft Lk M.C.

Year-round water use. No restriction on seasonal water use.

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

The wells 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 wells 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 October 5, 1995 and shall be completed on or before October 1, 1996. Complete application of the water shall be made on or before October 1, 1997.

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 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 September 9, 1994.

Issued this date October 5, 1994.

A. Reed Marbut
A. REED MARBUT

Water Resources Department
Martha O. Pagel
Director

Application G-12692	Water Resources Department	PERMIT G-11826
Basin 17	Volume 3 Croft Lake & Misc.	District 19
G-12692.SB		

*Superficial
Clause*

should be G-12685

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SEP 30 1997

WATER RESOURCES DEPT.
SALEM, OREGON

CLAIM OF BENEFICIAL USE AND SITE REPORT

IN THE NAME OF HARRY G. SPENCER

APPLICATION G-12685 PERMIT G-11826

SECTIONS 11, 12 AND 13, TOWNSHIP 30 SOUTH, RANGE 15 WEST, W.M.

GENERAL INFORMATION

The methods used to determine the information contained in this document are as follows:

1. Examination of Permit G-11826,
2. Examination of Assessor's Map 30-15-11,
3. Examination of Assessor's Map 30-15-12,
4. Examination of Assessor's Map 30-15-13,
5. Examination of Assessor's Map 30-15-14,
6. Examination of 7 1/2' U.S.G.S. Quadrangle Map (Langlois),
4. On-site survey, May 19, 1997 and July 22, 1997,
7. Interview with Doug Spencer, May 19, 1997 and July 22, 1997.

SOURCE

Two wells in the Croft Lake Basin.

Well #1

A 6" by approximately 60' deep steel-cased well in the SE1/4 SE1/4 of Section 11. A 5 horsepower well pump delivers water to in-system holding ponds and subsequent use in the SE1/4 SE1/4 of Section 11 via a 2 1/2" X 800' P.V.C pipeline.

Well #2

A 6" by approximately 60' deep steel-cased well in the SE1/4 SE1/4 of Section 11. A 3 horsepower well pump delivers water to the place of use in the SE1/4 SE1/4 of Section 11 and to in-system storage ponds and subsequent use in the NW1/4 NE1/4 of Section 13.

POINT OF DIVERSION

Well #1: 1100 feet north and 660 feet west, Well #2: 5 feet north and 20 feet west, both being from the southeast corner of Section 11 and both being within the SE1/4 SE1/4 of Section 11, Township 30 South, Range 15 West, W.M. Coos County.

USE

Cranberry Operations and Nursery Operations.

PLACE OF USE

Cranberry Operations

SE1/4 SE1/4 Section 11: 10.3 Acres,
NW1/4 NE1/4 Section 13: 1.6 Acres,
NE1/4 NE1/4 Section 13: 0.1 Acre,

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CLAIM OF BENEFICIAL USE - SPENCER - PERMIT G-11826
PAGE 2

WATER RESOURCES DEPT.
SALEM, OREGON

Nursery Operations

SE1/4 SE1/4 Section 11: 2.3 Acres.

CAPACITY OF THE DELIVERY SYSTEMS

From Well #1

$$\text{USING: } Q_{\text{PUMP}} = \frac{C \times \text{HP}}{H_{\text{TOTAL}}}$$

WHEN

$$C = 7.04$$

$$\text{HP} = 5$$

$$H_{\text{ELEVATION}} = 50'$$

$$H_{\text{PRESSURE}} = 0$$

$$H_{\text{FRICTION}} = 2.1'/100' (\text{ASSUMED}) - (2.1) (9) = 19'$$

$$Q_{\text{PUMP}} = \frac{(7.04) (5)}{69} = \frac{35.2}{69} = 0.51 \text{ cfs} = 22.9 \text{ GPM}$$

$$H_{\text{FRICTION}} @ 229 \text{ GPM} = 2.4'/100' - (2.4) (9) = 22'$$

$$Q_{\text{PUMP}} = \frac{35.2}{72} = 0.489 \text{ cfs} = 220 \text{ GPM}$$

$$H_{\text{FRICTION}} @ 220 \text{ GPM} = 2.4'/100'$$

$$Q_{\text{PUMP}} = 0.489 \text{ cfs OK}$$

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SEP 30 1997

WATER RESOURCES DEPT.
SALEM, OREGON

CLAIM OF BENEFICIAL USE - SPENCER - PERMIT G-11826
PAGE 3

From Well #2

WHEN

$$C=7.04$$

$$HP=3$$

$$H_{ELEVATION}=50+67=117'$$

$$H_{PRESSURE}=0$$

$$H_{FRICTION}=2.1'/100' (ASSUMED) = (2.1) (36) = 76'$$

$$Q_{PUMP} = \frac{(7.04) (3)}{117+76} = \frac{21.12}{193} = 0.109 \text{ cfs} = 49 \text{ GPM}$$

$$H_{FRICTION} @ 49 \text{ GPM} = 0.16'/100' = (0.16) (36) = 6'$$

$$Q_{PUMP} = \frac{21.12}{117+6} = \frac{21.12}{123} = 0.172 \text{ cfs} = 77 \text{ GPM}$$

$$H_{FRICTION} @ 77 \text{ GPM} = 0.37'/100' = (0.37) (36) = 13'$$

$$Q_{PUMP} = \frac{21.12}{117+13} = \frac{21.12}{130} = 0.162 \text{ cfs} = 73 \text{ GPM}$$

$$H_{FRICTION} @ 73 \text{ GPM} = 0.36'/100' = (0.36) (36) = 13'$$

$$Q_{PUMP} = 0.162 \text{ cfs OK}$$

$$CAPACITY OF WELL \#1 + WELL \#2 = 0.489 + 0.162 = 0.651 \text{ cfs}$$

$$0.651 < Q_{PERMIT} \text{ FOR TEMPERATURE CONTROL}$$

$$Q_{PUMPS} \text{ GOVERN @ } 0.651 \text{ cfs}$$

$Q_{ALLOWABLE}$

IRRIGATION

CRANBERRIES:

$$(1/40) (10) = 0.25 \text{ cfs}$$

NURSERY:

$$(1/80) (2.3) = \underline{0.029} \text{ cfs}$$

TOTAL

$$0.279 \text{ cfs}$$

TEMPERATURE CONTROL

CRANBERRIES:

$$(0.15) (10) = 1.5 \text{ cfs}$$

NURSERY:

$$(0.15) (2.3) = \underline{0.345} \text{ cfs}$$

TOTAL

$$1.845 \text{ cfs}$$

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CLAIM OF BENEFICIAL USE - SPENCER - PERMIT G-11826
PAGE 4

SEP 30 1997
WATER RESOURCES DEPT.
SALEM, OREGON

CERTIFICATION

The Final Proof Survey and inspection of the use as found to be completed under the terms and conditions of Permit G-11826 were completed by James F. Gosson, Certified Water Right Examiner #54, on July 22, 1997, and the facts contained in this report and accompanying Final Proof Map are correct to the best of my knowledge.



I, Harry G, Spencer, agree to the findings of James F. Gosson, Certified Water Right Examiner #54, and do submit this site report and map as Claim of Beneficial Use of the water as provided under the terms and conditions of Permit G-11826.

Harry G. Spencer
Signature

9/26/97
Date

CLAIM OF BENEFICIAL USE: G-12685
COMPLETENESS CHECKLIST

prop tests ok det

- 1. Source
- 2. POD/POA location
- 3. Conveyances shown *FOR WELL #2; NOT #1.*
- 4. POU shown
- 5. Map Scale
- 6. Township, Range, Section
- 7. North arrow
- 8. CWRE stamp & signature on report *and map*
- 9. Disclaimer
- 10. Date of survey
- 11. Point of Beginning
- 12. Dimensions/Capacity of Diversion system

- 13. "Beneficial Use"-type title
- 14. Map on Linen or polyester film
- 15. Permit conditions
 - well access port
 - overirrigated acres
 - measuring device *+ REPORTS NOT MENTIONED IN CLAIM*
 - other *PUMP TEST NOT IN FILE.*
- 16. Type of use
- 17. Extent of use
- 18. Rate and duty *- ASSUMES 10 ACRES; SHOULD BE 12.0.*
- 19. Time limits
- 20. Crop type
- 21. System capacity (with computations)

** - 1ST QPUMP CALCULATION FOR WELL #1 SHOULD RESULT IN 229 GPM, NOT 22.9 GPM*
OK

Reviewer: *Comp Engel* Date: *11/20/97*

Stored at M:\masters\upchecklist.wpd

prop test rec'd in 91; report lacks complete data re. water system. and no info on meter or reporting. JCB 2/2/00



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 10, 1997

HARRY G. SPENCER
PO BOX 291
LANGLOIS, OR 97450

REFERENCE: File G-12685

This will acknowledge that your claim of beneficial use and map in the name of HARRY G. SPENCER were received on SEPTEMBER 30, 1997. These will be reviewed in the future to insure they are complete and correct.

Please contact me if you have any questions.

Sincerely,

Don Knauer *ICB*

DON KNAUER
Program Representative

DEK:tcb

cc: JAMES F. GOSSON, CWRE #54

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SEP 30 1997

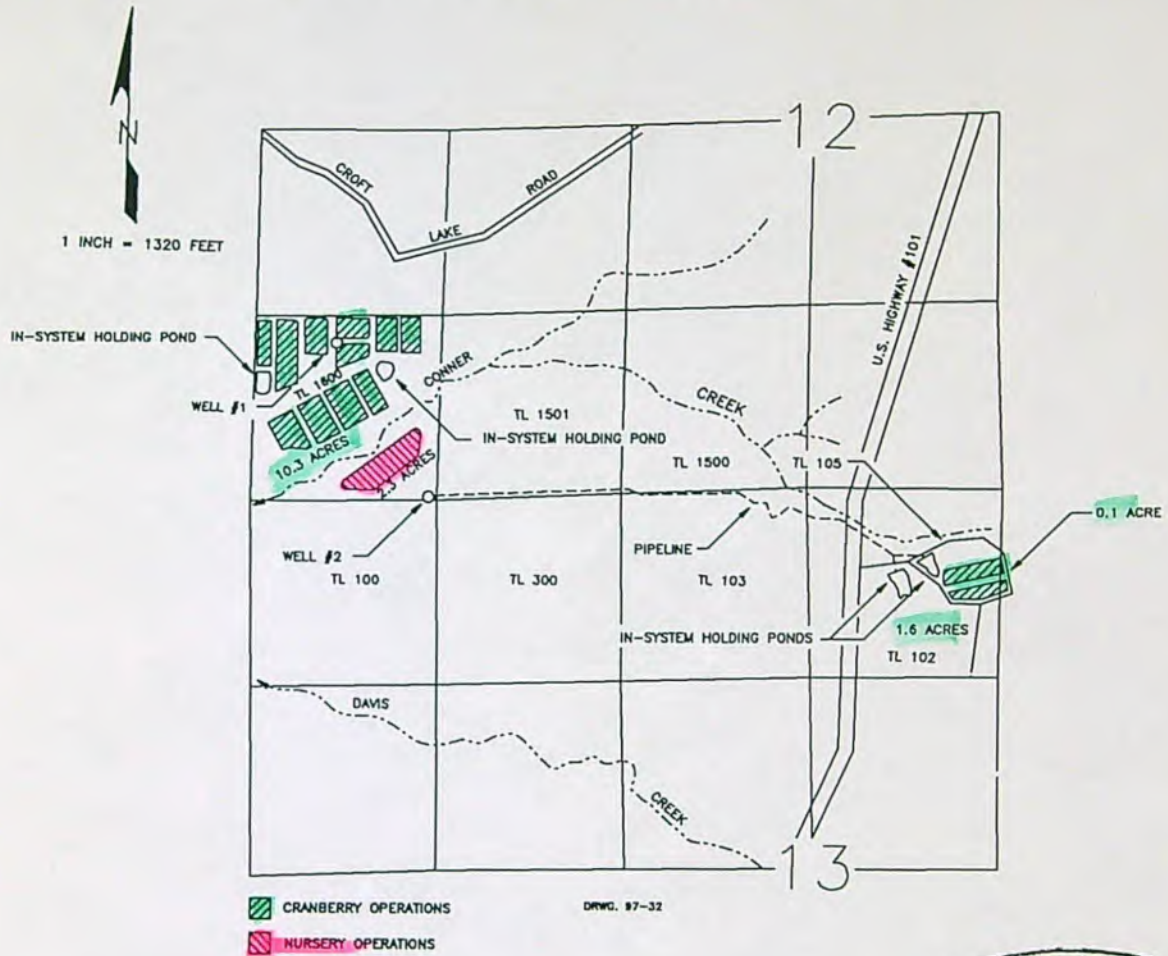
WATER RESOURCES DIV
SALEM, OREGON

FINAL PROOF SURVEY MAP IN THE NAME OF HARRY G. SPENCER

SECTIONS 11, 12, & 13, TOWNSHIP 30 SOUTH, RANGE 15 WEST, W.M.

APPLICATION G-12685

PERMIT G-11826



Certified Water Right Examiner
#054 WRE
James F. Gosson
James F. Gosson
Nov. 19, 1987
STATE OF OREGON

WELL # 1 IS LOCATED 1100 FEET NORTH AND 660 FEET WEST; WELL # 2 IS LOCATED 5 FEET NORTH AND 20 FEET WEST, BOTH BEING FROM THE SOUTHEAST CORNER OF SECTION 11 AND BOTH BEING WITHIN THE SE1/4 SE1/4 OF SECTION 11, TOWNSHIP 30 SOUTH, RANGE 15 WEST, W.M., COOS COUNTY.

THE PURPOSE OF THIS MAP IS TO IDENTIFY THE LOCATION OF THE WATER RIGHT. IT IS NOT INTENDED TO PROVIDE INFORMATION RELATIVE TO PROPERTY OWNERSHIP BOUNDARY LINES.

JAMES F. GOSSON

580 S. State Street
Sutherlin, Oregon 97479-9536
541-459-2243 pegjim@mcsl.net

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MAR 10 2000

**WATER RESOURCES DEPT.
SALEM, OREGON**

Civil Engineer
Water Right Examiner

8 March, 2000

Oregon Water Resources Department
Commerce Building
158 12th Street NE
Salem, Or 97310

Attn: Steve Brown

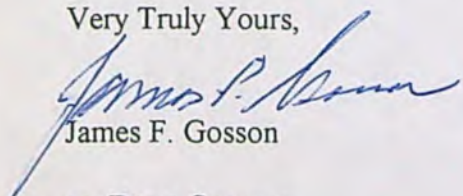
Re: Application G-12685, Permit G-11826 (Spencer)

Dear Mr. Brown,

In response to your letter of February 7, 2000. I have reviewed my field notes, taken the day of the field inspection, and find reference to both sources, Well #1 and Well #2, as being metered by way of in-line, totalizing, flange-type, 2-inch McCrometer meters. My notes do not describe, and my memory fails to recall, the details as to the location; nor have I been able to determine the serial number, or numbers. If you need this information, I will schedule a re-visit to the site my next trip to that area, which should be within the month.

On the basis of my knowledge gained from reviewing my notes, I attest by this letter, that both sources of water are metered with meters that satisfy the criteria of your department, however, let me know if you want the additional information I described above, and if you want it in the form of an amended Site Inspection Report.

Very Truly Yours,


James F. Gosson

cc: Doug Spencer



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

February 7, 2000

James F. Gosson, CWRE
580 S. State Street
Sutherlin, OR 97479

Reference: **Application G-12685**, Permit G-11826 - Harry Spencer

Dear Mr. Gosson:

I have received a request, from Mr. Doug Spencer, to review the claim of beneficial use report for the above referenced permit.

The permit contains the following measurement, recording and reporting condition:

"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. 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."

Without the information regarding the condition described above, the claim of beneficial use report is incomplete. If you will provide information regarding any record of the amount of water diverted, the department will determine if the permit condition in question has been satisfied.

Please feel free to contact me if you have any questions and I will be happy to address any concerns you may have. I remain,

Sincerely,

Steve Brown
Program Analyst

c: Mr. Spencer
Mr. John Drolet, Watermaster



January 28, 2000

Sea Mist Farms
Attn: Harry Spencer
P.O. Box 239
Langlois, OR. 97450

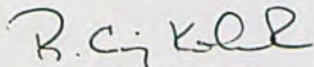
With regard to the pump test requirements for the following well and its associated water rights:

APP. #:G - 12685 PERMIT #: G - 11826 POD-ID: 36443 USER-ID: 26775
36444

The Department has **accepted the pump test results you have submitted**. The department requires no further testing of this well at this time. However, you will be required to submit a static water level measurement of the wells on the ten-year anniversary of the test you conducted. That date is **August 21, 2001**. If your permit or certificate includes a condition that requires annual static water level measurements, please continue to make and report these measurements unless otherwise instructed.

We appreciate your cooperation with this program. If you have any questions, please contact me at (503) 378-8455 ext. 289 or Mike Zwart at ext. 207. The Departments toll-free number is 1-800-624-3199.

Sincerely,


R. Craig Kohanek
Pump Test Coordinator

c: Water Rights Section



Commerce Building
158 12th Street NE
Salem, OR 97310-0210
(503) 378-3739
FAX (503) 378-8130

STATE OF OREGON

COUNTY OF COOS

PERMIT TO APPROPRIATE THE PUBLIC WATERS

THIS PERMIT IS HEREBY ISSUED TO

HARRY G. SPENCER
P.O. BOX 291
LANGLOIS, OR 97450

503-347-4114

to use the waters of WELLS 1 AND 2 in the CROFT LAKE BASIN for NURSERY OPERATIONS OF 4.0 ACRES AND CRANBERRY OPERATIONS OF 12.0 ACRES.

This permit is issued approving Application G-12685. The date of priority is OCTOBER 4, 1991. The use is limited to not more than 0.356 CUBIC FOOT PER SECOND (CFS); being 0.178 cfs for cranberry operations and 0.008 cfs for nursery operations from well 1 and 0.178 cfs for cranberry operations and 0.10 cfs for nursery operations from well 2 provided the total quantity of water diverted shall not exceed 0.356 cfs, or its equivalent in case of rotation, measured at the wells.

The wells are located as follows:

SE 1/4 SE 1/4, Section 1, T 30 S, R 15 W, WM; Well 1 - 1030 feet north and 750 feet west, from SE corner Section 11; WELL 2 - 5 feet north and 20 feet west, from SE corner Section 11.

The amount of water diverted for CRANBERRY OPERATIONS, together with amounts secured under any other rights existing for the same lands, is limited as follows: For temperature control, 0.15 cubic foot per second per acre; For flood harvesting or pest control, 0.05 cubic foot per second per acre; For irrigation of cranberries, ONE-FORTIETH of one cubic foot per second and 3.0 acre-feet per acre for each acre irrigated during the irrigation season of each year. For the irrigation of any other crop, ONE-EIGHTIETH of one cubic foot per second and 2.5 acre-feet per acre for each acre irrigated during the irrigation season of each year.

The amount of water used for NURSERY OPERATIONS is limited to a diversion of 0.15 cubic foot per second per acre. For the irrigation of containerized nursery plants, the amount of water diverted is limited to ONE-FORTIETH of one cubic foot per second (or its equivalent) and 5.0 acre feet per acre per year. For the irrigation of in ground nursery plants the amount of water diverted is limited to ONE-EIGHTIETH of one cubic foot per second (or its equivalent) and 2.5 acre feet per acre per year. The use of water for NURSERY OPERATIONS may be made at anytime of the year that the use is beneficial. For the irrigation of any other crop, the amount of water diverted is limited to ONE-EIGHTIETH of one cubic foot per second (or its equivalent) and 2.5 acre feet per acre during the irrigation season of each year.

If substantial interference with a senior water right occurs due to withdrawal of water from any well listed on this permit, then use of water from the well(s) shall be discontinued or reduced and/or the schedule of withdrawal shall be regulated until or unless the Department approves or implements an alternative administrative action to mitigate the interference. The Department encourages junior and senior appropriators to jointly develop plans to mitigate interferences.

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

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

	Cranberry Operations	Nursery Operations
SE 1/4 SE 1/4 Section 12	10.0 Acres	4.0 Acres
NW 1/4 NE 1/4 Section 13	2.0 Acres	

Township 30 South, Range 15 West, WM

Application G-12685

Water Resources Department

PERMIT G-11826

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

The wells 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 wells 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 October 5, 1995 and shall be completed on or before October 1, 1996. Complete application of the water shall be made on or before October 1, 1997.

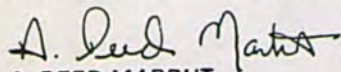
Failure to comply with any of the provisions of this permit may result in action including, but not limited to, restrictions on the use, civil penalties, or cancellation of the permit.

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 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 September 9, 1994.

Issued this date October 5, 1994.


A. REED MARBUT

Water Resources Department
Martha O. Pagel
Director

Route Slip

Date 11-01-94

TO:	Name	Division/Section	Initial	Date
1.				
2.				
3.				
4.				
5.				

<input type="checkbox"/>	as requested	<input type="checkbox"/>	investigate	<input type="checkbox"/>	per conversation
<input type="checkbox"/>	approval	<input type="checkbox"/>	justify	<input type="checkbox"/>	prepare reply
<input type="checkbox"/>	comment	<input checked="" type="checkbox"/>	necessary action	<input type="checkbox"/>	return with more detail
<input type="checkbox"/>	confer	<input type="checkbox"/>	initial and return	<input type="checkbox"/>	review and circulate
<input type="checkbox"/>	for your information	<input type="checkbox"/>	note and file	<input type="checkbox"/>	signature

Description on permit is incorrect. Section should be 11, not 12.

Mr. Spencer owns the SESE of Sect. 11, not Sect 12 per

FROM: Jerre, Dist #19 Phone No. 396-3121

25-097677

 See Other Sideext 254

Coos County Assessor
Records.

Also, application map
describes Sect. 11

G-11826

STATE OF OREGON
COUNTY OF COOS

RECEIVED
NOV - 3 1994

PERMIT TO APPROPRIATE THE PUBLIC WATERS

THIS PERMIT IS HEREBY ISSUED TO

HARRY G. SPENCER
P.O. BOX 291
LANGLOIS, OR 97450

WATER RESOURCES DIVISION
SALEM, OREGON
503-347-4114

to use the waters of WELLS 1 AND 2 in the CROFT LAKE BASIN for NURSERY OPERATIONS OF 4.0 ACRES AND CRANBERRY OPERATIONS OF 12.0 ACRES.

This permit is issued approving Application G-12685. The date of priority is OCTOBER 4, 1991. The use is limited to not more than 0.356 CUBIC FOOT PER SECOND (CFS); being 0.178 cfs for cranberry operations and 0.008 cfs for nursery operations from well 1 and 0.178 cfs for cranberry operations and 0.10 cfs for nursery operations from well 2 provided the total quantity of water diverted shall not exceed 0.356 cfs, or its equivalent in case of rotation, measured at the wells.

The wells are located as follows:

SE 1/4 SE 1/4, Section 11, T 30 S, R 15 W, WM; Well 1 - 1030 feet north and 750 feet west, from SE corner Section 11; WELL 2 - 5 feet north and 20 feet west, from SE corner Section 11.

The amount of water diverted for CRANBERRY OPERATIONS, together with amounts secured under any other rights existing for the same lands, is limited as follows: For temperature control, 0.15 cubic foot per second per acre; For flood harvesting or pest control, 0.05 cubic foot per second per acre; For irrigation of cranberries, ONE-FORTIETH of one cubic foot per second and 3.0 acre-feet per acre for each acre irrigated during the irrigation season of each year. For the irrigation of any other crop, ONE-EIGHTIETH of one cubic foot per second and 2.5 acre-feet per acre for each acre irrigated during the irrigation season of each year.

The amount of water used for NURSERY OPERATIONS is limited to a diversion of 0.15 cubic foot per second per acre. For the irrigation of containerized nursery plants, the amount of water diverted is limited to ONE-FORTIETH of one cubic foot per second (or its equivalent) and 5.0 acre feet per acre per year. For the irrigation of in ground nursery plants the amount of water diverted is limited to ONE-EIGHTIETH of one cubic foot per second (or its equivalent) and 2.5 acre feet per acre per year. The use of water for NURSERY OPERATIONS may be made at anytime of the year that the use is beneficial. For the irrigation of any other crop, the amount of water diverted is limited to ONE-EIGHTIETH of one cubic foot per second (or its equivalent) and 2.5 acre feet per acre during the irrigation season of each year.

If substantial interference with a senior water right occurs due to withdrawal of water from any well listed on this permit, then use of water from the well(s) shall be discontinued or reduced and/or the schedule of withdrawal shall be regulated until or unless the Department approves or implements an alternative administrative action to mitigate the interference. The Department encourages junior and senior appropriators to jointly develop plans to mitigate interferences.

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

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

SE 1/4 SE 1/4	Cranberry Operations	Nursery Operations
Section 11	10.0 Acres	4.0 Acres
NW 1/4 NE 1/4	2.0 Acres	
Section 13		

Township 30 South, Range 15 West, WM

Application G-12685 Water Resources Department PERMIT G-11826

Wh
#19

Year-round water use. No restriction on seasonal water use.

17-3 Croft Lk Muc

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

The wells 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 wells 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 October 5, 1995 and shall be completed on or before October 1, 1996. Complete application of the water shall be made on or before October 1, 1997.

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 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 September 9, 1994.

Issued this date October 5, 1994.

A. Reed Marbut
A. REED MARBUT

Water Resources Department
Martha O. Pagel
Director

Application G-12692	Water Resources Department	PERMIT G-11826
Basin 17	Volume 3 Croft Lake & Misc.	District 19
G-12692.SB		

Should be G-12685

Draft
correction required?
SB 2/7/00

STATE OF OREGON

COUNTY OF COOS

PROPOSED CERTIFICATE OF WATER RIGHT

THIS CERTIFICATE ISSUED TO

HARRY G. SPENCER
SEA MIST FARMS
P.O. BOX 239
LANGLOIS, OR 97450

confirms the right to use the waters of WELLS 1 AND 2 in the CROFT LAKE BASIN for NURSERY OPERATIONS ON 4.0 ACRES AND CRANBERRY OPERATIONS OF 12.0 ACRES.

This right was perfected under Permit G-12685. The date of priority is OCTOBER 4, 1991. The amount of water to which this right is entitled is limited to an amount actually beneficially used and shall not exceed 0.356 CUBIC FOOT PER SECOND, or its equivalent in case of rotation, measured at the wells.

The wells are located as follows:

WELL 1 - SE 1/4 SE 1/4, SECTION 11, TOWNSHIP 30 SOUTH, RANGE 15 WEST, W.M.; 1100 FEET NORTH AND 650 FEET WEST FROM THE SE CORNER OF SECTION 11; AND

WELL 2 - SE 1/4 SE 1/4, SECTION 11, TOWNSHIP 30 SOUTH, RANGE 15 WEST, W.M.; 5 FEET NORTH AND 20 FEET WEST FROM THE SE CORNER OF SECTION 11.

The amount of water diverted for CRANBERRY OPERATIONS, together with amounts secured under any other rights existing for the same lands, is limited as follows: For temperature control, 0.15 cubic foot per second per acre; For flood harvesting or pest control, 0.05 cubic foot per second per acre; For irrigation of cranberries, ONE-FORTIETH of one cubic foot per second and 3.0 acre-feet per acre for each acre irrigated during the irrigation season of each year. For the irrigation of any other crop, ONE-EIGHTIETH of one cubic foot per second (or its equivalent) and 2.5 acre-feet per acre for each acre irrigated during the irrigation season of each year.

The amount of water used for NURSERY OPERATIONS is limited to a diversion of 0.15 cubic foot per second per acre. For the irrigation of **containerized nursery plants**, the amount of water diverted is limited to ONE-FORTIETH of one cubic foot per second (or its equivalent) and 5.0 acre feet per acre per year. For the irrigation of **in ground nursery plants** the amount of water diverted is limited to ONE-EIGHTIETH of one cubic foot per second (or its equivalent) and 2.5 acre feet per acre per year. The use of water for NURSERY OPERATIONS may be made at anytime, during the period of allowed use specified above, that the use is beneficial. For the irrigation of **any other crop**, the amount of water diverted is limited to ONE-EIGHTIETH of one cubic foot per second (or its equivalent) and 2.5 acre feet per acre during the irrigation season of each year.

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

NURSERY OPERATIONS

SE 1/4 SE 1/4 2.3 ACRES
SECTION 11
TOWNSHIP 30 SOUTH, RANGE 15 WEST, W.M.

CRANBERRY OPERATIONS

SE 1/4 SE 1/4 10.3 ACRES
SECTION 11

NE 1/4 NE 1/4 0.1 ACRE
NW 1/4 NE 1/4 1.6 ACRES

SECTION 13

TOWNSHIP 30 SOUTH, RANGE 15 WEST, W.M.

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

Measurement, recording and reporting conditions:

- A. The water user shall install a meter or other suitable measuring device as approved by the Director. 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 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.

The Director may require water level or pump test results every ten years.

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

The right to use water for the above purpose is restricted to beneficial use, without waste, on the lands or place of use described. 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.

If substantial interference with a senior water right occurs due to withdrawal of water from any well listed on this right, then use of water from the well(s) shall be discontinued or reduced and/or the schedule of withdrawal shall be regulated until or unless the Department approves or implements an alternative administrative action to mitigate the interference. The Department encourages junior and senior appropriators to jointly develop plans to mitigate interferences.

R. J. RALLS - GEOLOGIST

P.O. Box 389 — 15693 Ocean View Dr.
Brookings, Oregon 97415

Phone
(503) 469-6053

August 18, 1992

Mr. Harry Spencer
Growth Unlimited Nursery Inc.
P. O. Box 291
Langlois, Oregon, 97450

RECEIVED
AUG 19 1992

Dear Mr. Spencer:

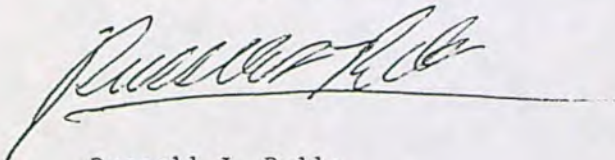
The accompanying report presents the results of our findings with respect to the Hydrogeology of the project area.

Please note, that on the Cross Section on page 9, we have used the levels of standing water in the Greenhouse Well and the SE Well as reported on previous reports of September 10, 1991 and October 7, 1991, respectively. Water levels of the Greenhouse well and the SE Well were 28 feet 7½ inches and 29 feet 6 inches below the ground surface for each well respectively.

We believe that although the present water level of the Marine Terrace with respect to this dry season of 1992, may in fact be lower than the dry seasons of 1991, that this years slightly dryer season would not adversely affect or significantly change the results of our report except that the Marine Terrace water table and the Potentiometric surface in the clay of the wetland may have slightly lower grade.

If you have questions concerning the above, please contact us.

Respectfully submitted,



Russell J. Ralls
Consulting Geologist

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R. J. RALLS - GEOLOGIST

P.O. Box 389 — 15693 Ocean View Dr.
Brookings, Oregon 97415

Phone
(503) 469-6053

August 12, 1992

TO: Mr. Harry Spencer
Growth Unlimited Nursery Inc.
P. O. Box 291
Langlois, OR, 97450

SUBJECT: Geological evaluations of Aquifers located in the
SE $\frac{1}{4}$ of the SE $\frac{1}{4}$ of Section 11, T.30S., R.15W., W.&M.
Coos County, Oregon

Dear Mr. Spencer:

The following presents the results of our geologic evaluation of the aquifers located in the above subject property.

The purpose of this report is to address the geology of the property with respect to the aquifers present in and under the property and to address the possible connection of the underground aquifers with the surface waters of Conner Creek.

SCOPE

The work performed for this report includes a review of the earlier reports of September 10, 1991 and October 5, 1991, review of published geologic information related to the property, digging of 22 soil boreholes of about 6 feet deep per borehole in the wetland areas of Conner Creek, mapping of these boreholes in the wetland area, core drilling of a 50 foot deep exploration hole near the middle of the wetland area using a truck mounted cable rig with two (2) foot long two (2) inch diameter core tube. The work also included evaluation of water bearing sands in the exploration hole and the monitoring of water rise in the various aquifers encountered in the hole.

TOPOGRAPHY

The study area consists of an open gentle sloped upper surface of a Pleistocene Marine Terrace through which the bogland of Conner Creek and its associated wetland disects the property from a northeast to southwest direction, see Site map page 8 . The grade of Conner Creek flows from about the middle part of the east border of the property in a southwest direction to the southwest corner on about a four (4) foot vertical drop per about four hundred (400) foot horizontal. Conner Creek flows through the wetland area in a

meander, but stays within the confines of the wetland and does not flow up against either bank on north or south margins of the wetland, see site map page 8 .

The slopes of the upper surface of the Marine Terrace are gentle towards Conner Creek on both the northwest and southeast upland areas of the property, see cross section Page 9, (note verticle scale exaggeration). The surface in the northwest of Conner Creek, has been terraced into flat benches for agriculture purposes, whereas the ground surface south of Conner Creek has not been desturbed and is original in slope.

SOIL CORES

Soil Borehole Cores were conducted throughout the bottom of the wetland area, see site map page 8 , and borehole logs Appendix A & B. The method of coring, consisted of a split spoon sampler with a total length of 6 feet. The sampler had a 2 inch core diameter and was collected in 1 foot intervals.

The purpose of the soil sampler and the 22 different boreholes drilled, was to establish the extent and areas in the wetland area underlain by clay. In this respect, 6 foot boreholes were drilled on about 200 foot centers along the north and south borders of the wetland and logs kept of each borehole drilled.

The borehole logs are shown on diagram Appendix B, and established the character and lithology of nearsurface materials throughout the wetland. In the vast majority of the boreholes, kaolinitic clay of extremely high purity was the predominate material. Several holes encountered Peat and other woody debris indicative of stagnant bog conditions in the recent geologic past. Soil Borehole #17 & #18 encountered sand near the bottom with #18 penetrating into bedrock shale. A creek flowing into the Conner Creek basin is present just east of boreholes #17 & #18, which is believed to ride upon bedrock. Boreholes 7-2, 8 & 9, also encountered sands in the bottom, which are believed to represent older channels of the creek, now buried and separated from the existing channel of Conner Creek by clays and peat.

EXPLORATION WELL HOLE

On August 11, 1992, an exploration well was drilled to total depth of about 50 feet (drillers Log) as shown on Appendix E. The well was drilled by Cable tool rig mounted on Ford Truck, which used a 2 inch diameter core barrel with 2 foot intervals per core. After each core recovery a six (6) inch casing was driven into the ground with bentonite packing used to seal the outside borehole of the casing from the annulus of the borehole. This was done for purposes of sealing off the uphole formations from the intervals being cored and drilled.

Two interval logs are given on the Appendix C, one which was provided by the well driller who logged from the surface of the dike road down and the other taken from the original sod of the bottom land down. The difference in depths between the to logged intervals of five (5) feet, corresponds to the difference in elevation between the top of the dike road and the upper surface of the sod in the original bottomland. The Material descriptions were from the two (2) foot cores drilled and bagged.

R. J. RALLS - GEOLOGIST

The purpose of the Exploration well, was to establish the total depth of the bogland or Conner Creek basin materials and to record, maintain separation and amounts of rise of any water encountered during the boring. In this case, one (1) unconfined water bearing strata was encountered near the surface between 6.25 and 9.83 feet (drillers log) and two (2) confined water bearing stratas at 22 to 23 feet and again at 40 to 50 feet.

The upper water bearing strata represents the original bog surface before construction of the dike road, and is believed connected to the creek. The water bearing strata between 22 and 23 feet, produced a natural rise of water inside the casing of about 5.42 feet in 9 minutes and of about 10.42 feet in 44 minutes. Depths to top of water in the cased hole was measured using an electronic dipper attached and made part of a steel measuring tape. The lower water bearing strata first drilled into at about 40 feet deep, produced a rise in water of 29 feet in 30 minutes.

The upper aquafer or water bearing strata is actually the surface water of the bog and not really a aquafer as it represents the burried upper surface of the bog trapped only in the area of the road dike which was constructed many years ago. The second aquafer between the intervals of 22 and 23 feet, represents a confined aquafer and is believed connected to the aquafer of the Marine Terrace. This second aquafer is rather poor in permeability as it is packed with clay and relatively thin. The lowest and third aquafer encountered, is also a confined aquafer and represents the lowest burried materials deposited during the early stages of filling in the Conner Creek Canyon. This lowest and third aquafer, appears to be connected to the second and confined aquafer encountered between 22 and 23, as the water rose in the casing 29 feet to about the same level as the water rise of the first aquafer. However since pumping was not conducted, the two confined aquafers which appeared separated by a clay aquatard, may or maynot be connected.

GEOLOGIC HISTORY

The materials and water encountered in the Soil Boreholes, Exploration well and topography of the area is believed to represent a transgression regression geologic history. The geology and formation materials of the area are shown in cross section page 9, and interpreted to have originated as follows:

Marine Terrace Development & Deposition

During the Late Pleistocene, the entire area was covered by the ocean corresponding to an interglacial period. This period is believed to be the Whiskey Run Terrace development or otherwise corresponding to the Sangamon interglacial. In the Sangamon or Whiskey Run period, the upper surface of the bedrock was peneplained to a nearly level but eroded surface. At the close of the Sangamon, the sea withdrew first by depositing gravels and then later sands up to a total thickness of about 100 feet or more in the area.

Coquille Formation of Conner Creek Canyon

During the Wisconsin glaciation (last great glacial stage) of the latest Pleistocene, sea level dropped throughout the world as caused by the building of ice on the Earths Continents. Total lowering of the ocean is believed

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to have been about 400 feet during the Wisconsin Glacial stage. Because of this significant lower sea level, the coastal shoreline west of the property would likely have been several miles west of its present shoreline and several hundred feet lower than today's Mean Sea Level. Rivers such as the Coquille and Creeks such as Conner, continued to flow and thereby erode down through the Whiskey Run Marine Terrace and down into the bedrock materials. At such time in the greatest drop of sea level, the subject property would have had a canyon of about 80 feet or more deep with the materials of the Marine Terrace exposed along the upper portions of the canyon.

At the close of the Wisconsin Glacial period during the time interval of 20,000 to 15,000 years ago, sea level rose approximately 400 feet with an average rise of about 1 foot for every 70 years. Sea level continued to rise for the next 10,000 years at a much slower rate and has remained relatively stable for the last 5,000 years.

The materials present in the canyon of Conner Creek are believed contemporaneous to the Coquille Formation as defined by Baldwin (1945). These bedded materials in the Canyon of Conner Creek are not likely connected to Coquille Formation, unless connected in materials buried at sea.

In any case, the Conner Creek canyon materials as encountered in the entirety of the Exploration Well, were deposited during the close of the Wisconsin Glacial period. Although we do not have Carbon Dates for the logs or other organics encountered in the well, we believe these materials are of Late Wisconsin age. Such being the case, the first materials deposited in the canyon were gravels and sands, representing a fluvial depositional environment (materials between 40 and 50 foot interval). These materials were deposited because of the backing up of the creek due to the transgression of sea level rise. Eventually the creek bottom land became gradually wider, where the creek would meander back and forth across its old channel basin, where trees and marshes developed and grew. This was the second stage of the canyon filling or deposition, and alternated between forest land represented by trees and logs and of marsh land represented by clays. The second stage of filling is represented in the Exploration hole between intervals of 23 feet to 40 feet. At the end of this second stage of canyon deposition, the bedrock exposures of the canyon became completely filled (see cross section page 9). This resulted in a sheet deposition of sands which likely was derived from the adjacent and nearby Marine Terrace Formation upon and through which Conner Creek was finally able to penetrate. Whereas before, Conner Creek was confined inside the bedrock banks of the canyon wall and unable to meander out into the Marine Terrace materials, at such time when the canyon was filled up to the level of the older Marine Terrace/bedrock interface contact, the creek could then meander slightly over its older confines and out into the Marine Terrace formation. We believe this 3rd stage of canyon deposition resulted in the sand layer as encountered in the exploration hole between the interval of 22 and 23 feet. The last and 4th stage of canyon filling, is represented by the deposition of nearly pure kaolinitic clays. These clays are of Ball Type and represent a potential economic deposit. The clay is devoid of any sand, silt or impurities except for minor organics. We believe this Ball Clay was deposited during the last 5,000 to 10,000 years in a marsh or bog environment of acid conditions. The Ball Clay is at least 12 feet thick, as encountered in the exploration well, and is present throughout the basin of Conner Creek as encountered in the Soil Boreholes Appendix B. This last or 4th stage deposition, represents

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a Holocene age but is continuous deposition of the filling of the old Conner Creek Canyon.

HYDROGEOLOGIC EVALUATIONS

We believe that the 3rd stage of Canyon Filled materials, represented on the Cross Section page as "3rd Stage Materials", is connected to the aquifer of the Marine Terrace materials as encountered in the Greenhouse well to the northwest and the SE well to the southeast. We also believe that the 1st stage Canyon Materials, represented by the Channel Gravel in the Cross Section page, is also connected to the 3rd stage materials aquifer and the Marine Terrace aquifer based on the nearly equal water level in the casing within 7 inches of each other. Water level of the upper water bearing material encountered in the exploration well, rose 1.5 feet to about the 6½ foot level in the well which is nearly level with the water level of Conner Creek. We believe that this upper water bearing material encountered between the 6.25 and 9.83 foot depth in the well is connected to Conner Creek.

The water of the lowest aquifer (1st stage materials) and the water of the middle or second aquifer (3rd stage materials) rose to about 11 feet and 11.42 feet respectively for each aquifer, whereas the water of the upper aquifer (Sod and Creek level materials) rose to about 6.5 feet in the Exploration well. This represents a difference in static water levels of about 4.5 feet between the upper and middle aquifers and about 4.92 feet between the upper and lower aquifers as encountered in the exploration well.

CONCLUSIONS

The geologic history of the filling of Pleistocene Conner Creek canyon, resulted in the deposition of thick layers of very pure Ball Clay. This Ball clay composed of predominately Kaolinite, is thickest in the upper part of the formation (Stage 4 deposition), and forms an aquatard of which separates the perched aquifer of Conner Creek and its associated marsh wetland from the connected middle and lower aquifers of the canyon. These lower (1st and 3rd stage materials) aquifers are in the area of the buried canyon confined aquifers, but are believed connected to the aquifer of the Marine Terrace. Likewise, the water table of the Marine Terrace aquifer is likely lower than the level of Conner Creek by at least 4 or 5 feet, and has its developed gradient due to the drainage provided by the aquifers of the 1st and 3rd stage canyon filled materials, as indicated by the evidence gathered during July and August, 1992. Therefore, Conner Creek and its associated marsh is a perched water and aquifer separated from the Marine Terrace and the lower Canyon filled materials by the Ball Clay.

The Ball Clay deposited during the 4th stage of canyon filling, is believed to have been derived from the erosion of the hills to the east which is composed of Otter Point and Tertiary bedrock formations. The Ball Clay is of extremely high purity and thus is believed to be of economic value. Carbon and other organics in the clay are not contaminating as these can be burned out during firing or ceramic use. The Ball Clay is also of very low permeability due to its purity and relative thickness. Because of these characteristics, the Ball Clay deposit forms a major aquatard in the basin of Conner Creek.

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LIMITATIONS

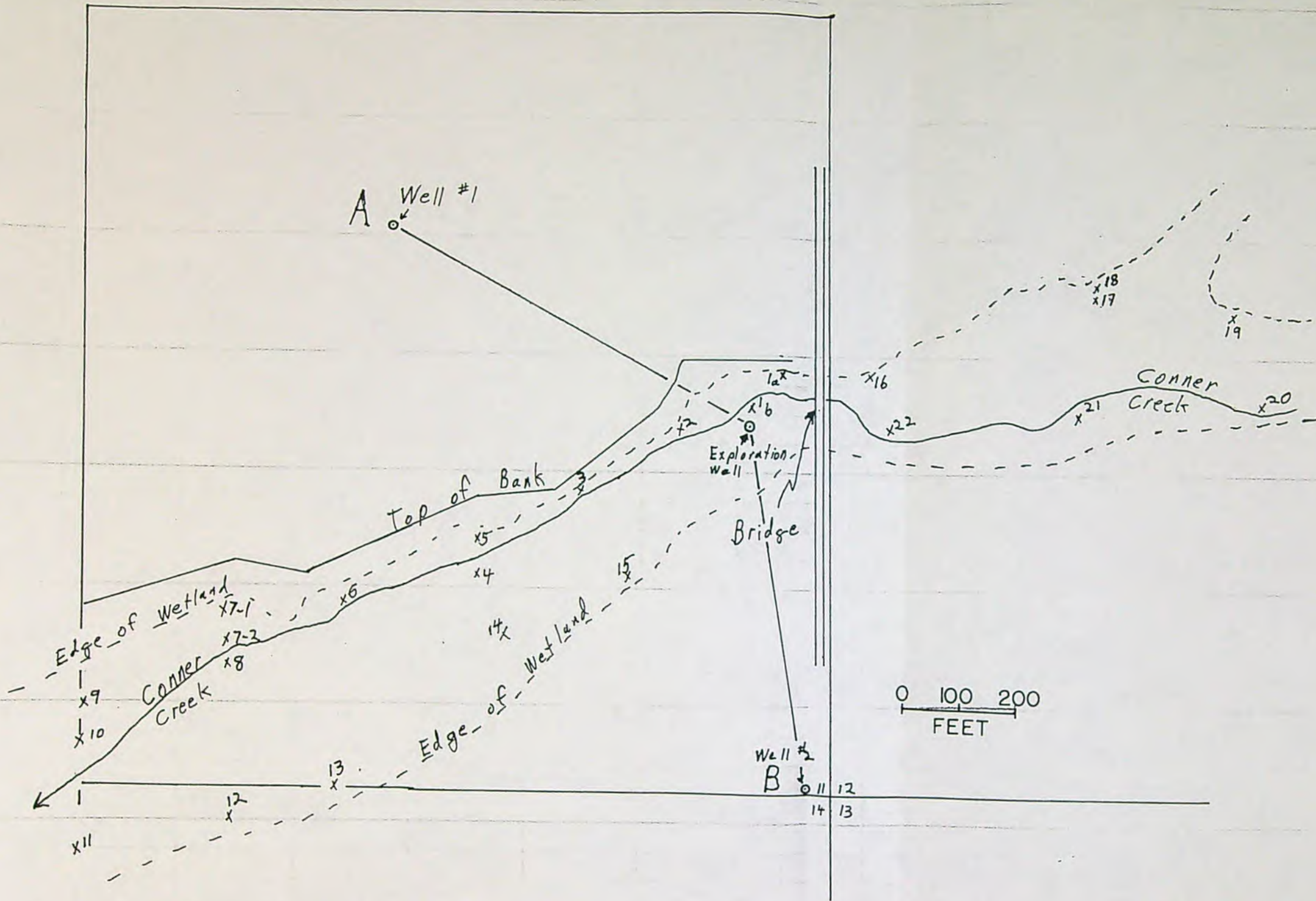
This report and the information presented herein, including opinions, interpretations and conclusions were derived in general professional geologic practice. This report and all contents is limited to the scope of work performed.

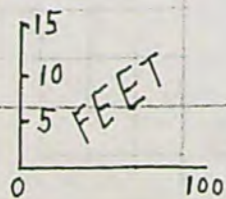
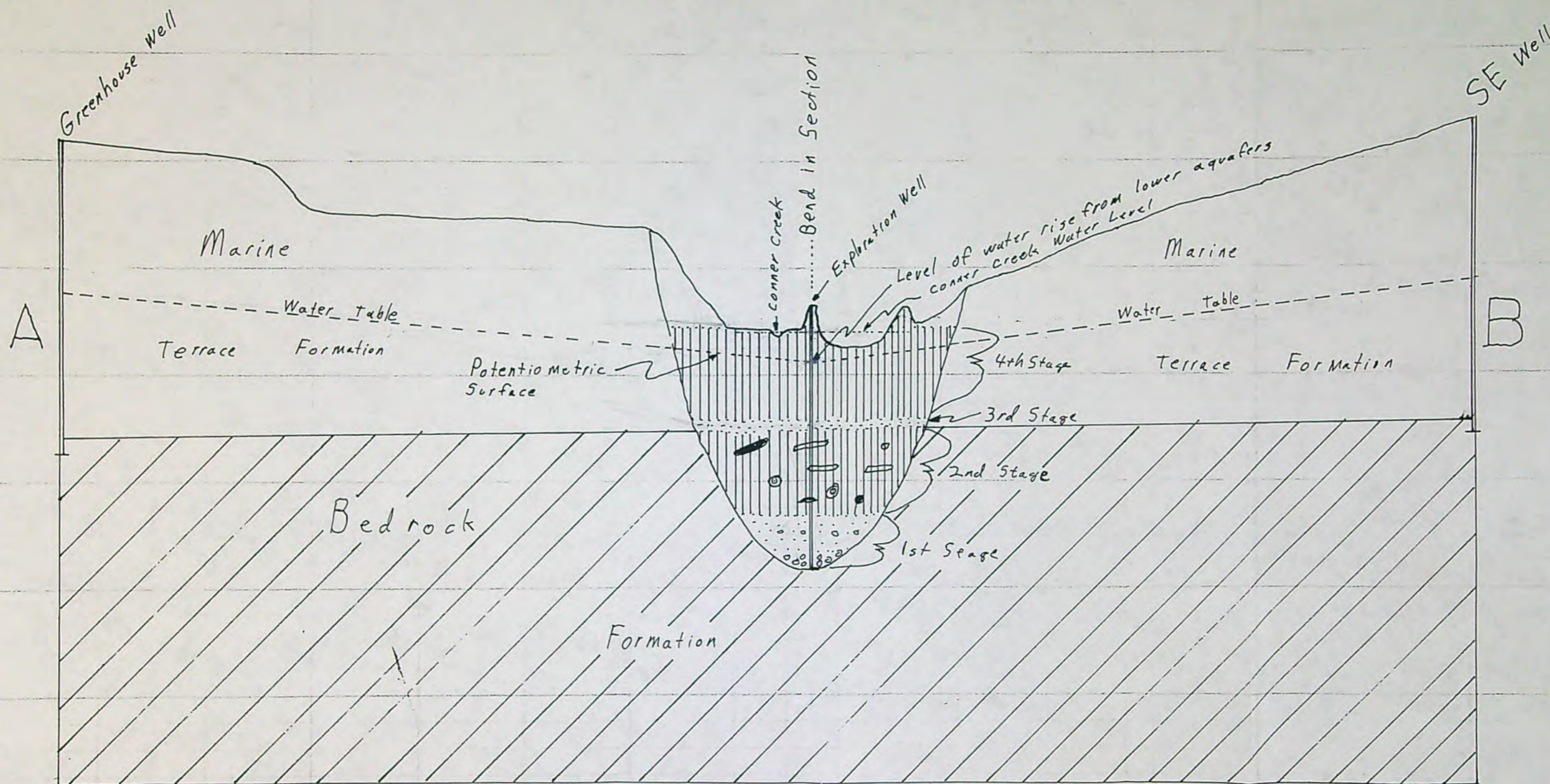
We are please to have been of service to you, and if there are questions concerning this report or the project site, please contact us.

Respectfully, yours,







Russell J. Ralls
Consulting Geologist





Vertical - 1 inch = 20 Feet
Horizontal - 1 inch = 100 Feet

PREDOMINATE Material

-  CLAY
-  SAND & GRAVEL
-  WOOD
-  BEDROCK SHALE

SOIL
BOREHOLE LOGS

Appendix A-1

Core #1_a

0.0 - 1.0 feet Sod/sand, dark brown/grey, water saturated, soft and clayey
1.0 - 2.0 feet Sod/clay/sand, grey/brown, soft, water saturated
2.0 - 5.0 feet Clay, grey, soft on top firm on bottom, plastic and clean
5.0 - 5.5 feet Peat, brown, soft, clayey, damp but not water
5.5 - 6.0 feet Peat/clay, grey/brown, soft on top firm on bottom, plastic/clear

Core #1_b

0.0 - 1.0 feet Sod/sand, dark brown/grey, water saturated, soft and clayey
1.0 - 1.5 feet Sod/organics/clay, grey on bottom brown on top, soft/water
1.5 - 5.0 feet Clay, grey, soft on top firm on bottom, plastic and clean
5.0 - 5.2 feet Peat/clay, brown/grey, soft, damp but no water
5.2 - 6.0 feet Clay, grey to blue, firm and highly plastic

Core #2

0.0 - 1.0 feet Sand/sod, varigated & varicolored, water saturated
1.0 - 2.0 feet Sand on top clay on bottom, grey, soft, water onto top sand
2.0 - 3.0 feet Clay/roots, grey, semi soft to firm on bottom
3.0 - 5.5 feet Clay, clean, grey, no roots or organics, highly plastic
5.5 - 6.0 feet Sand, varigated & varicolored, water saturated

Core #3

0.0 - 1.0 feet Clay/Peat, grey to brown, soft/water
1.0 - 1.2 feet Peat, brown, soft and wet/water
1.2 - 4.0 feet Clay, grey, highly plastic, clean
4.0 - 4.5 feet Clay/sand, grey to brown, firm and plastic
4.5 - 5.5 feet Clay/silt and sand, soft in middle of core section/water
5.5 - 6.0 feet Log, soft and decomposed, damp in middle but not wet.

Core #4

0.0 - 1.0 feet Sod/clay, brown, soft/roots
1.0 - 2.0 feet Clay, grey, soft on top, firm on bottom, clean/some roots
2.0 - 3.5 feet Clay, grey on top to blue gray on bottom, clean and plastic
3.5 - 6.0 feet Clay, blue gray to blue on bottom, clean and highly plastic

Core #5

0.0 - 1.0 feet Sod, brown, roots and plants, soft with water
 1.0 - 2.0 feet Peat and Clay, brown on top clay/peat on bottom grey, water
 2.0 - 2.4 feet Clay/Peat, Peat on top, clay on bottom, brown to grey,
 2.4 - 4.0 feet Clay, grey, highly plastic, no organics, firm on bottom
 4.0 - 6.0 feet Lost core, no water on bottom but water from top flowing down
 and swelling the clay.

Core #6

0.0 - 1.0 feet Sod, brown, roots and plants, soft with water from surface
 1.0 - 2.0 feet Clay, brown/roots on top grey and firm on bottom
 2.0 - 4.5 feet Clay, grey, firm and highly plastic
 4.5 - 5.0 feet Clay/peat, soft, no water, brown
 5.0 - 6.0 feet Clay, grey, firm to hard, purely plastic, pure clay

Core #7-1

0.0 - 3.0 feet Log, large and soft
 3.0 - 4.0 feet Peat/clay, firm, brownish grey
 4.0 - 4.3 feet Log, hard, unable to core further.

Core #7-2

0.0 - 1.0 feet Log, large and soft
 1.0 - 2.0 feet Peat, water saturated
 2.0 - 3.3 feet Peat, Sand, brown, unconsolidated, water saturated,
 3.3 - 4.0 feet Sand/clay on bottom, varigated & rounded, old creek bottom, water
 4.0 - 4.8 feet Sand/clay, clayey on bottom, grey, soft on top firm on bottom
 4.8 - 6.0 feet Clay, grey, highly plastic, clean pure clay

Core #8

0.0 - 1.5 feet Sod, roots and plants, sandy clay
 1.5 - 2.0 feet Sod/sand/clay, brown sandy sod on top grading down to grey clay
 2.0 - 3.3 feet Clay/sand, firm and plastic
 3.3 - 6.0 feet Sand, coarse grained, varicolored, rounded, old creek channel

Core #9

0.0 - 1.0 feet Sod, roots, grey to brown, clayey
 1.0 - 1.9 feet Clay/Peat, black to dark grey,
 1.9 - 4.0 feet Sand, fine grained, water saturated, bottom of hole caving in
 of unconsolidated water sand. Water rise to 2.0 feet from top
 of hole

Core #10

0.0 - 1.0 feet	Sod, grey to brown, clayey on bottom
1.0 - 2.0 feet	Sod/Clay, dark grey, rotten egg smell
2.0 - 3.0 feet	Clay/Sticks, grey to dark grey, rotten egg smell
3.0 - 4.0 feet	Clay, grey, clean and plastic
4.0 - 4.5 feet	Clay/peat, grey to dark brown, soft
4.5 - 6.0 feet	Clay, grey, clean and plastic

Core #11

0.0 - 1.0 feet	Sod, brown/soft clay
1.0 - 6.0 feet	Clay, solid, plastic, very pure, grey in color to buff on bottom

Core #12

0.0 - 1.0 feet	Sod/clay on bottom, brown to grey on bottom, slight water
1.0 - 1.8 feet	Clay/Peat, soft and spongy, grey to brown, water saturated
1.8 - 6.0 feet	Clay, grey, solid and pure, highly plastic

Core #13

0.0 - 1.1 feet	Sod, brown
1.1 - 6.0 feet	Clay, grey, pure and highly plastic

Core #14

0.0 - 0.5 feet	Sod, soft with spongy peat
0.5 - 6.0 feet	Clay, firm on bottom soft on top, pure grey and plastic

Core #15

0.0 - 1.0 feet	Topsoil/sod, dark brown, soft with water
1.0 - 3.0 feet	Clay, dark grey on top grading down to light grey on bottom
3.0 - 6.0 feet	Clay, light grey, firm and highly plastic, very pure

Core #16

0.0 - 1.0 feet	Peat with sod, brown to dark gray
1.0 - 2.0 feet	Peat/clay, brownish grey, soft/water
2.0 - 3.0 feet	Clay/Peat, grey to brown, firm on bottom
3.0 - 4.0 feet	Clay, dark grey/organics, rotten egg smell
4.0 - 4.8 feet	Clay, dark grey to brown/sticks, rotten egg smell
4.8 - 6.0 feet	Clay, blue grey, pure and plastic

Core #17

0.0 - 3.5 feet	Peat, soft and brown, no water
3.5 - 6.0 feet	Sand, grey, varigated unconsolidated, some water
6.0 - 6.5 feet	Sand/cobbles, cobbles of rounded bedrock clasts

Core #18

0.0 - 1.0 feet	Peat, brown and soft, water
1.0 - 2.0 feet	Peat/sand, brown and varigated coarse sand
2.0 - 3.0 feet	Sand/silt, grey, fine to medium grained
3.0 - 4.1 feet	Sand & Gravel, brown and red, poorly sorted
4.1 - 4.5 feet	Gravel, rounded and cobbles of bedrock
4.5 - 5.0 feet	Gravel, cobbles and clay, light buff, hard on bottom
5.0 - 5.25 feet	Bedrock, Shale/siltstone, hard, thin bedded/steep dip

Core #19

0.0 - 1.0 feet	Peat, brown, soft, water
1.0 - 2.0 feet	Clay/Peat on top, Grey to brown on top
2.0 - 4.5 feet	Clay, grey, firm and plastic
4.5 - 6.0 feet	Clay, grey to buff colored on bottom firm and plastic

Core #20

0.0 - 0.5 feet	Sod, brown and soft, water
0.5 - 2.0 feet	Clay, grey and soft, highly plastic, water on top
2.0 - 6.0 feet	Clay, grey, pure and firm, highly plastic

Core #21

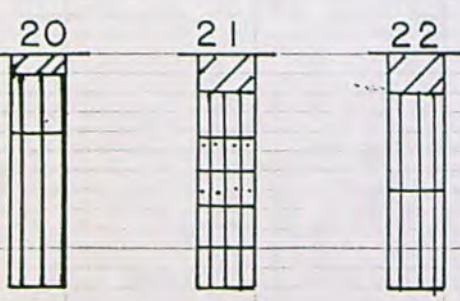
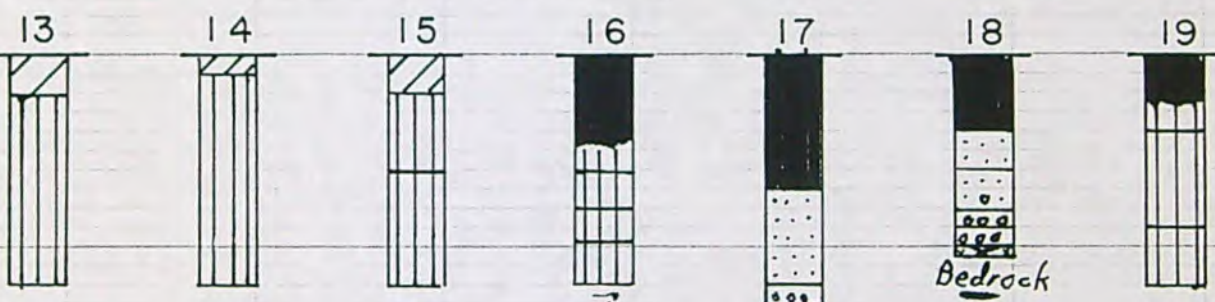
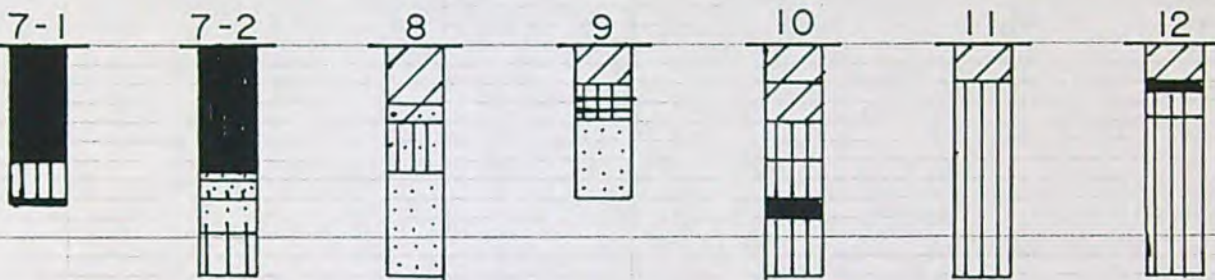
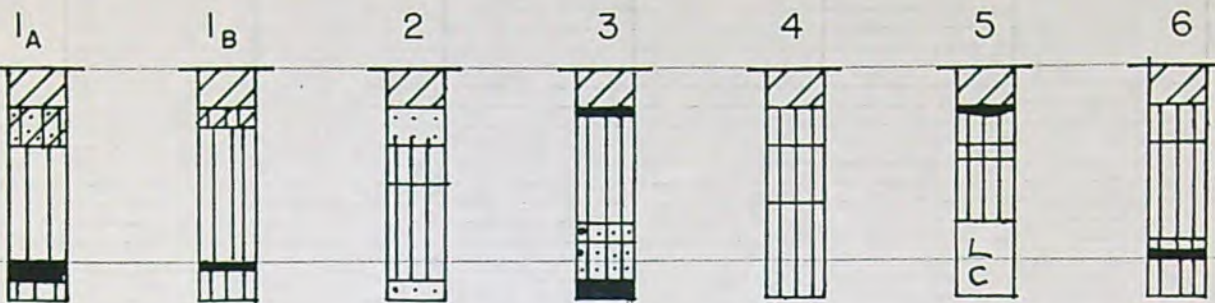
0.0 - 1.0 feet	Sod/Peat, brown and soft, water
1.0 - 2.2 feet	Clay, grey, plastic and pure
2.2 - 3.0 feet	Clay sandy, firm and plastic, grey
3.0 - 3.8 feet	Sandy clay, firm and plastic, grey, thick and stiff
3.8 - 5.0 feet	Clay/sand, brown, semi firm, plastic and thick
5.0 - 6.0 feet	Clay with some sand, grey brown, plastic and thick

Core #22








0.0 - 1.0 feet	Sod, brown and organic, water
1.0 - 3.5 feet	Clay, grey, pure and plastic, firm
3.5 - 6.0 feet	clay, light buff, pure and plastic, firm to hard

MADE IN U.S.A.
KEUFFEL & ESSER CO

SKETCH OF SOIL LOGS



F E E T
0
5

-  SOD / TOPSOIL
-  CLAY
-  SAND
-  PEAT
-  GRAVEL
-  BEDROCK
-  LOST CORE

EXPLORATION WELL LOG

Driller: Jim Mack, WWC #1493
 Rig Type: Truck Mounted Cable Tool; Core Barrel Driven Type
 2 inch Diameter & 2 feet long
 Date Drilled: August 11, 1992
 Total depth: 50 feet deep from top of dike road
 Well Purpose: Exploration, 6 inch driven casing after each core

Well Driller Log		Core Description Log	
Depth Feet	Description	Depth Feet	Lithology
0.0 - 6.0	Clay, Blue Gray Not cored	Not Cored	
6.0 - 6.25	Sod, buried grass	5.0 - 7.00	Clay/Roots & Sand, Original Sod, Brown
6.25 - 9.83	Sand/gravel, med brown SWL 7 feet (1)	7.00 - 9.00	Clay/sand, water bearing
		9.00 - 11.00	Clay/sand on top, grey
		11.00 - 13.00	Clay, Blue grey, pure Ball Clay, no sand or silt
		13.00 - 15.00	Clay, Blue grey, pure Ball Clay, highly plastic
9.83 - 22.0	Clay, Blue	15.00 - 17.00	Clay, Blue Grey as above
		17.00 - 19.00	Clay, Blue Grey as above Stiff and plastic,
		19.00 - 21.00	Clay, Blue grey, thick stiff and highly plastic & pure
		21.00 - 22.00	Clay, blue grey lost part of bottom core
22.00 - 23.0	Sand, grey medium SWL 11 feet 7 inches (1)	22.00 - 24.00	Clay on top, Sand on bottom, Grey, Water bearing sands, Water rise 5.42 feet/9 minutes Water rise 10.42feet/44minutes
23.00 - 24.0	Clay/wood, grey	24.00 - 26.00	Clay/sand, medium grey Wood on bottom
24.00 - 29.0	Sand/clay & wood	26.00 - 28.00	Clay/sand & wood mixed, grey
29.00 - 30.0	Clay/sand, Grey	28.00 - 30.00	Clay, some sand & wood, dk grey to light grey
30.00 - 32.0	Wood/clay, grey brown	30.00 - 32.00	Wood/clay & Sand, med/dk grey
32.00 - 34.0	Clay/wood, Grey brown	32.00 - 34.00	Clay, grey, pure no sand or wood

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Well Drillers Log

Core Description Log

<u>Depth Feet</u>	<u>Description</u>	<u>Depth Feet</u>	<u>Lithology</u>
		34.00 - 36.00	Clay, Grey, some sand & wood on bottom
34.0 - 40.0	Clay/wood, grey brown	36.00 - 38.00	Clay/wood, no sand, grey to dk grey
		38.00 - 40.00	Lost Core
40.00 - 42.0	Gravel/clay & wood, Water bearing SWL 11 feet (1)	40.00 - 42.00	Sand/Pebbles, Varigated & Rounded, Water bearing Water rise 29feet/30 minutes
42.00 - 50.0	Sand/gravel & wood, water bearing	42.00 - 50.00	No Core,
50.00+	Shale, Claystone	50.00+	Bottom hole core composed of shale and clay.

- (1) Water rise measured inside sealed casing using electronic dipper.
Water rise measured from top of interval as shown.

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STATE OF OREGON
WATER WELL REPORT
(as required by ORS 537.765)

(START CARD) # 41199

T 305/R15W/511
SE 9 SE

(1) OWNER: Well Number 167
Name Growth Unlimited (Harry Spencer)
Address P.O. Box 291
City Langlois State OR Zip 97450

(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 Test Hole

(5) BORE HOLE CONSTRUCTION:
Special Construction approval Yes No Depth of Completed Well 50' ft.
Explosives used Yes No Type _____ Amount _____

HOLE		SEAL		Amount sacks or pounds
Diameter	From To	Material	From To	
6"	0' 50'	Cement	0' 20'	1800 #

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: <u>REMOVED</u>							
Liner:							

Final location of shoe(s) _____

(7) PERFORATIONS/SCREENS:
 Perforations Method _____
 Screens Type _____ Material _____

From	To	Slot size	Number	Diameter	Tele/plpe size	Casing	Liner
<u>N/A</u>							

(8) WELL TESTS: Minimum testing time is 1 hour

Pump Bailor Air Flowing Artesian

Yield gal/min	Drawdown	Drill stem at	Time
10	30'		1 hr.

Temperature of Water 52° 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 Coos Latitude _____ Longitude _____
Township 30S N or S. Range 15W E or W. W.M. _____
Section 11 SE & SE &
Tax Lot 1600 Lot _____ Block _____ Subdivision _____
Street Address of Well (or nearest address) Craft Rd off 1015

(10) STATIC WATER LEVEL:
11' ft. below land surface. Date 8/12/92
Artesian pressure _____ lb. per square inch. Date _____

(11) WATER BEARING ZONES:
Depth at which water was first found 7'

From	To	Estimated Flow Rate	SWL
6'3"	9'10"	2 GPM	7'
22'	23'	5 GPM	11'7"
40'	42'	10 GPM	11'

(12) WELL LOG: Ground elevation +/-300'

Material	From	To	SWL
Clay Blue Gray	0	6	
Sod	6	6'3"	
Sand w/Gravel Med Brown	6'3"	9'10"	7'
Clay Blue	9'10"	22'	
Sand Gray medium	22'	23'	11'7"
Clay w/wood Gray	23'	24'	
Sand w/clay + wood Fine Brown	24'	29'	
Clay w/Sand Gray medium	29'	30'	
Wood w/clay Gray Brown	30'	32'	
Clay Gray	32'	34'	
Clay w/wood Gray Brown	34'	40'	
Gravel w/clay + wood med Brown	40'	42'	11'
Clay w/wood + Gravel	42'	50'	
Clay Stone Gray	50'	+	

Date started 8/11/92 Completed 8/12/92

(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 best knowledge and belief.
Signed _____ Date _____
WWC Number _____

(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 Jim Mack Date 8/17/92
WWC Number 1493

New Well @ SE Cor. Sec. 11
Croft Piece

Appendix D-2

T30S/R15W/11

STATE OF OREGON
WATER WELL REPORT
(as required by ORS 537.765)

(START CARD) # 26375

(1) OWNER: Well Number: 112
Name: Harry Spencer
Address: _____
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: 57 1/2 ft.
Explosives used Yes No Type Amount

HOLE			SEAL			Amount sacks or pounds
Diameter	From	To	Material	From	To	
10	0	25	Bentonite	0	25	1300 #

How was seal placed: Method A B C D E
 Other Introduced from surface
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
6"	+18"	36"	.29"	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Liner: _____

Final location of sheets: _____

(7) PERFORATIONS/SCREENS:

Perforations Method Telescope
 Screens Type Johnson Material Stainless Steel

From	To	Slot size	Number	Diameter	Tele/pipe size	Casing	Liner
31' 5/8"	43' 7/8"	.016"		6"	Tele	<input type="checkbox"/>	<input type="checkbox"/>
43' 7/8"	48' 1/2"	.012"		6"	Tele	<input type="checkbox"/>	<input type="checkbox"/>
48' 1/2"	54' 1/2"	.014"		6"	Tele	<input type="checkbox"/>	<input type="checkbox"/>
54' 1/2"	58' 1/2"			5"	Full Pipe	<input checked="" 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
40	11' 4" @ 4 hrs	55'	1 hr.

Temperature of water 50' 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 Coos Latitude _____ Longitude _____
Township 30S N or S. Range 15W E or W. V
Section 11 SE 1/4 SE 1/4
Tax Lot 1600 Lot _____ Block _____ Subdivision _____
Street Address of Well (or nearest address) CROFT ROAD
OFF OF HWY 101 S. - WELL

(10) STATIC WATER LEVEL:
31' ft. below land surface. Date 8/13
Artesian pressure _____ lb. per square inch. Date _____

(11) WATER BEARING ZONES:
Depth at which water was first found 31'

From	To	Estimated Flow Rate
31	54	40 GPM

(12) WELL LOG: Ground elevation +/- 300'

Material	From	To
Sandy Clay Piece n	0	15
Clay w/ sand Brown	15	18
Clay w/ sand Gray	18	22
Sand Brown Fine	22	26
Sand/clay + Gravel Fine Brown	26	30
Sand Gravel Medium	30	36
Sand w/ gravel Brown Coarse	36	54
Clay w/ gravel Gray	54	55
Claystone Gray Hard	55	58

Date started 8/29/91 Completed 9/10/91

(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 knowledge and belief.

Signed: J. S. S. Date: 9/10/91 WWC Number: 61

(bonded) Water Well Constructor Certification:
I accept responsibility for the construction, alteration, or abandonment of 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: J. W. Mack Date: 9/10/91 WWC Number: 101

STATE OF OREGON
WATER WELL REPORT
(as required by ORS 537.765)

WATER RESOURCES DEPT. WATER RESOURCES DEPT.
SALEM, OREGON SALEM, OREGON (STARTCARD) #

T30s/R15w/11dc
16053

(1) OWNER: HARRY SPENCER Well Number: 39
Name GROWTH UNLIMITED TREE FARM
Address P.O. BOX 291
City LANGLOIS State OR. Zip 97450

(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 57'2" ft.
Explosives used Yes No Type _____ Amount _____

HOLE			SEAL			Amount sacks or pounds
Diameter	From	To	Material	From	To	
10"	0	18	CEMENT	0	18	800#
6"	18	58				

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:

Casing/Liner	Diameter	From	To	Gauge	Material			
					Steel	Plastic	Welded	Threaded
Casing:	6"	+1	39'11"	.250	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Liner:					<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Final location of shoe(s) _____

(7) PERFORATIONS/SCREENS:
 Perforations Method TELESCOPE
 Screens Type JOHNSON Material STAINLESS STEEL

From	To	Slot size	Number	Diameter	Tele/pipe size	Casing	Liner
38'10"	44'9"	.015			6"	<input type="checkbox"/>	<input type="checkbox"/>
44'9"	50'4"	.012			6"	<input type="checkbox"/>	<input type="checkbox"/>
50'4"	55'3 1/2"	.010			6"	<input type="checkbox"/>	<input type="checkbox"/>
55'3 1/2"	57'2"				5"	<input checked="" type="checkbox"/>	<input type="checkbox"/>

(8) WELL TESTS: Minimum testing time is 1 hour
 Pump Bailer Air Flowing Artesian
Yield gal/min 42 Drawdown 6'9" Drill stem at @ 5.3' Time 1 hr.

Temperature of water 52° 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 COOS Latitude _____ Longitude _____
Township 30 S N or S, Range 15 W E or W, W.M.
Section 11 SE 1/4 SE 1/4
Tax Lot 11600 Lot _____ Block _____ Subdivision _____
Street Address of Well (or nearest address) CROFT ROAD - OFF OF 101 SOUTH.

(10) STATIC WATER LEVEL:
25'6" ft. below land surface. Date 3/13/90
Artesian pressure _____ lb. per square inch. Date _____

(11) WATER BEARING ZONES:
Depth at which water was first found 25'

From	To	Estimated Flow Rate	SWL
23'	55'	80	25'6"

(12) WELL LOG: Ground elevation ± 300'

Material	From	To	SWL
CLAY, BROWN	0	6	
SAND w/ GRAVEL, BROWN	6	18	
GRAVEL w/ SAND, MED., BROWN	18	20	
GRAVEL w/ SAND, MED., GRAY	20	23	
GRAVEL w/ SAND, MED., RED	23	24	25'6"
SAND w/ GRAVEL, FINE, BROWN	24	28	
CLAY w/ SAND, BROWN	28	30	
SAND w/ GRAVEL, FINE, BROWN	30	45	
GRAVEL w/ SAND, MED., BROWN	45	50	
SAND, MED., BROWN	50	55	
CLAY, GRAY	55	58	

Date started 3/12/90 Completed 3/20/90

(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.
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 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.
WWC Number 1493
Signed Jim Mack Date 3/20/90

6-12685

USNR-10: 26975
POO-10: 367443

R. J. RALLS - GEOLOGIST

P.O. Box 389
Brookings, Oregon 97415

Phone
(503) 469-6053

well # 1 in Application dated 9/27/91

September 10, 1991

TO: Mr. Harry Spencer
Growth Unlimited Nursery, Inc.
P. O. Box 291
Langlois, OR, 97450

Subject: Hydrogeologic evaluation of proposed well Spencer #1
located approximately W. 650' & N. 900' from the
SE corner Section 11, T. 30 S., R. 15 W., W.&M.
off Croft Road, Coos County, Oregon

Dear Mr. Spencer:

The following presents our findings of a Hydrogeologic evaluation of the aquifer in the above subject well.

The purpose of this report is to address the Geology and Hydrogeology of the water bearing aquifer, with respect to utilization proposal of the well. It is understood that you intend to pump water from the well at a pump rate suitable for the agricultural needs in the Nursery.

SCOPE OF WORK

The work performed for this report includes a test pump monitoring of two test wells, geologic evaluation of nearby Well Drillers logs, review of the available geologic and hydrogeologic literature and calculations based on the findings of this information.

TOPOGRAPHY

The well is located atop nearly flat and level ground. This ground is the upper surface of a gentle west facing Marine Terrace. South of the well about 652 feet and below about 35.58 feet is Conner Creek. The slope between the Well and the Creek is gentle and consistent.

GEOLOGY

Bedrock

Bedrock in the well was encountered at about 55 feet below the surface. The upper surface of the bedrock is weathered and results in a residual gray clay, which is relatively impermeable.

Assignment of the Bedrock to a Formation is not possible, given the available information. However, it is likely that the bedrock is one of the following formations; 1) Otter Point Formation, Jurassic Age; 2) Roseburg Formation, Early Eocene Age; 3) Late Cretaceous sediments; 4) Other Sedimentary formation.

Regardless of the age of the Bedrock Formation, the bedrock type is believed to be sedimentary of Marine origin and older than 40 million years.

Marine Terrace Formation

The exposed geologic unit at the Well Site, is the upper surface of a Pleistocene elevated Marine Terrace. This Marine Terrace upper surface is believed to be equivalent to the Late Pleistocene Whisky Run Terrace.

The Marine Terrace materials consist of basal layers of clayey sands and gravels, grading upwards to gravelly sands in the mid-layers and well sorted fine to medium grained sands near the surface. These Marine Terrace materials were deposited in a near shore or shoreline environment during the Late Pleistocene and on top an unconformable and disconformable peneplained surface of the bedrock.

The Marine Terrace materials are permeable and forms a major unconfined aquifer in the area.

HYDROGEOLOGY

The hydrogeology of the well site was determined by Pump Test, with monitoring of two monitor wells. The production well is 6 inches diameter, with depths of screens, casings and other information as provided by the Well Driller Report (Appendix A). The Test wells were drilled to 40 feet deep at about 15 feet and 25 feet distance from the production well towards Conner Creek. The monitoring wells were lined with PVC perforated pipe.

The pump consisted of a submersible with intake at about 54 feet deep in the well below the surface ground. Water pumped from the well during the test was carried over 500 feet from the well toward the southwest and discharged into an open pond.

The testing done consisted of two different Pump Tests. The first test was started on Monday, August 26, 1991 with a continual Pump Rate of about 50 gpm for about 2 days until the afternoon of Wednesday, August 28, 1991, for a total pumping time of about 48 hours.

During the interval time of the first test, a major Cold Front and Storm passed over Western Oregon. Because the Drawdown in the monitor wells reacted poorly and very inconsistently, and because the Pump Rate was relatively low, the data collected from the first test was considered nondependable and inaccurate in Hydrogeologic evaluations (see Pump Test #1, Appendix B B-1 C-1).

The second Pump Test was started on about 11:00 AM Thursday, August 29, with a continual Pump Rate of about 69 gpm for about 4 days until the evening of Wednesday, September 2, 1991 (Appendix B, B-2). The drawdown curve of pump test #2 was graphed (Appendix C-2) and showed a steady curve believed representative of the Hydrogeologic conditions in the aquifer.

Evaluations of Pump Test #2

Evaluation of Pump Test #2, was determined using an analysis formula derived

by C. V. Theis (1935) and based on heat-flow analogy of nonequilibrium hydraulics in aquifers.

Theis formula presents:

$$Z_r = \frac{q}{4 T \pi} \int_u^\infty \frac{e^{-u}}{u} du$$

Z_r = Drawdown in Observation well at distance r from pumped well

q = Pump Rate

T = Transmissibility of the Aquifer

u = function of S_c (storage constant for aquifer), with respect to pumping time and the T transmissibility.

$$u = \frac{r^2 S_c}{4 T t}$$

t = time of pumping from beginning.

The integral in the Theis formula of $\int_u^\infty \frac{e^{-u}}{u} du = W(u)$ or the function of u.

If q is constant, then $Z_r =$ a constant of $W(u)$, where the type curve of r^2/t versus Z_r should be similar to the type curve of u versus $W(u)$.

$$\frac{r^2}{t} = \frac{4 T}{S_c} u$$

Table 6-3 (Appendix D) lists values of $W(u)$ for various values of u. From Table 6-3 a type curve was drawn on log log paper (Appendix E-1).

Using the data from drawdown and time monitored from well #1 in Test #2, a curve of Z_r versus r^2/t was drawn on log log paper (Appendix E-2).

By superimposing the graphed curve of $W(u)$ versus u (Appendix E-1) atop the graphed curve of Z_r versus r^2/t (Appendix E-2), with axes parallel, a common point taken from where the two curves coincide provided match points of:

Water Well & Conner Creek Parameters

Because Conner Creek is the closest flowing stream nearby to the Well Spencer #1, and analysis was made with respect to pump production from the well and Conner Creek.

Distance information between Spencer #1 well and Conner Creek was provided by John Prahar, Registered Liscence Surveyor in Oregon.

The following information is given as represented on drawing of Well and vicinity to Conner Creek (from page 5), from survey and well records.

- H_w - Depth of original water Well from surface to bedrock ---- 55 feet
- H_o - Thickness of original water level before pumping ----- 26.375 feet
- H_{creek} - Depth in well of elevation of Conner Creek ----- 35.58 feet
- r_1 - Distance between Spencer well and monitor well #1 ----- 15.00 feet
- r_2 - Distance between Spencer well and monitor well #2 ----- 25.00 feet

Evaluation

From the Pump Test #2 and the above given data it is possible to make evaluations of the aquafer and its associated Hydrogeology with respect to Conner Creek.

Recovery monitoring was not conducted in this evaluation after either Pump Test #1 and Pump Test #2. However prior to pump test number 2, the water level rebound in the Spencer #1 production well recovered to within 3½ inches of the original water level before Pump Test #1, within 22 ½ hours of recovery. This rebound recovery of the aquafer level between Pump Test #1 and Pump Test #2, is well within normal parameters and indicates a good flow and recharge within the aquafer.

From the Pump Test #2, using the Theis formula, the following:

Match Point coordinates (Appendix E-1 & E-2):

$$W(u) = 5.0; \quad u = .0039; \quad Z = 28 \text{ inches (2.33 ft)}; \quad r^2/t = 204 \text{ Ft}^2/\text{day}; \\ q = 69 \text{ gpm (13,314 ft}^3/\text{day)};$$

Therefore:

$$T = \frac{13,314 \times 5.0}{4 \times \pi \times 2.33 \text{ ft}} = \frac{q \times W(u)}{4 \times 3.14 \times Z}$$
$$= \frac{2,270 \text{ ft}^2/\text{day}}{\text{Transmissibility of aquafer}}$$

and

$$S_c = \frac{4 \times .0039 \times 2,270 \text{ ft}^2/\text{day}}{204} = \frac{4 \times u \times T}{r^2/t}$$
$$= \underline{0.174} \text{ Storage Constant of aquafer}$$

Transmissibility of Marine Terrace aquafer is --- 2,270 ft²/day

Storage constant of Marine Terrace aquafer is --- 0.174

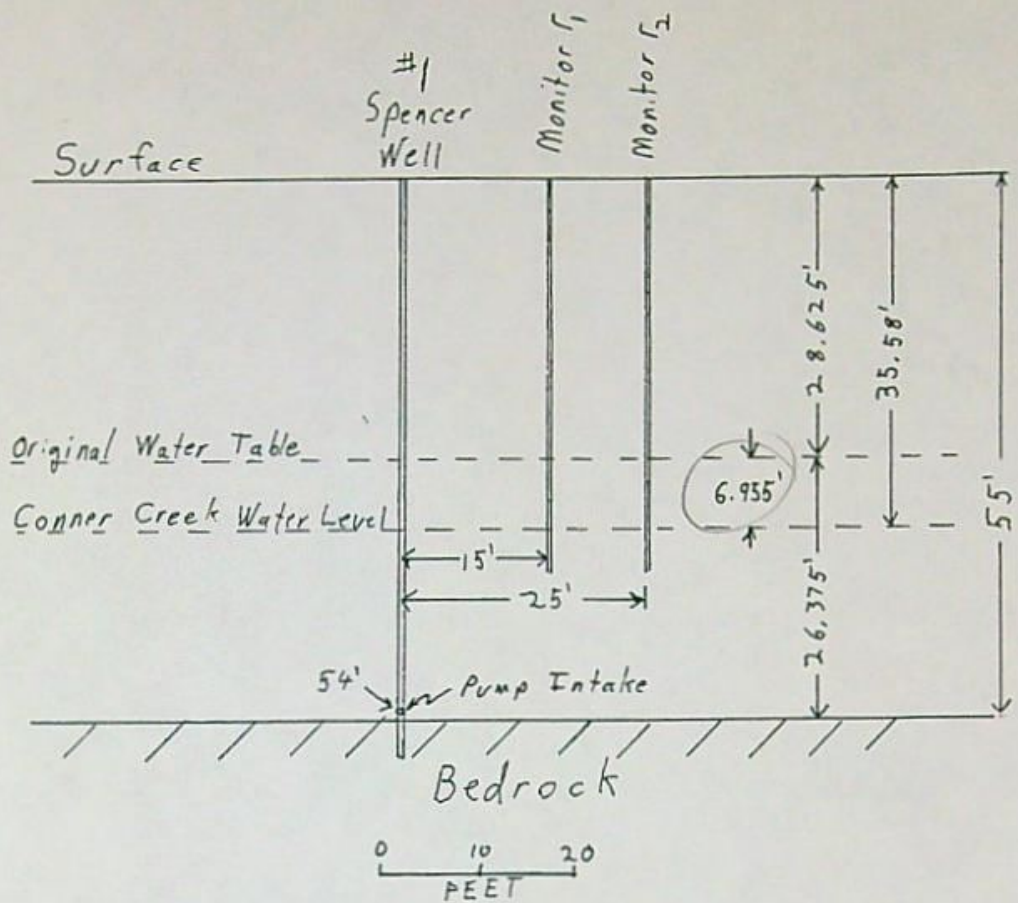
Marine Terrace Aquafer Character

From a study of the Well Drillers Log of Spencer Well #1 and of the other Logs of nearby wells (see location map page 7), it is concluded that the Marine Terrace is very consistent in thickness and grading of the layered materials. The upper surface of the Marine Terrace, where undissected by streams or creeks, slopes very gently towards the west. The Water Table from these logs, also indicates a nearly uniform surface with gentle slopes towards the west lying near parallel to the upper surface. In all the Drillers Logs in the vicinity to Spencer #1 Well, the water tables encountered were at least 5 feet above the level of the nearest stream and in many cases tens of feet above the level of the nearest stream.

The bedrock aquatard lying beneath the Marine Terrace, as evaluated from the Well Drillers Logs in the vicinity, is also consistently smooth surface with a predominate very gentle slope towards the west. The bedrock aquatard upper surface usually consists of tan to gray colored claystone.

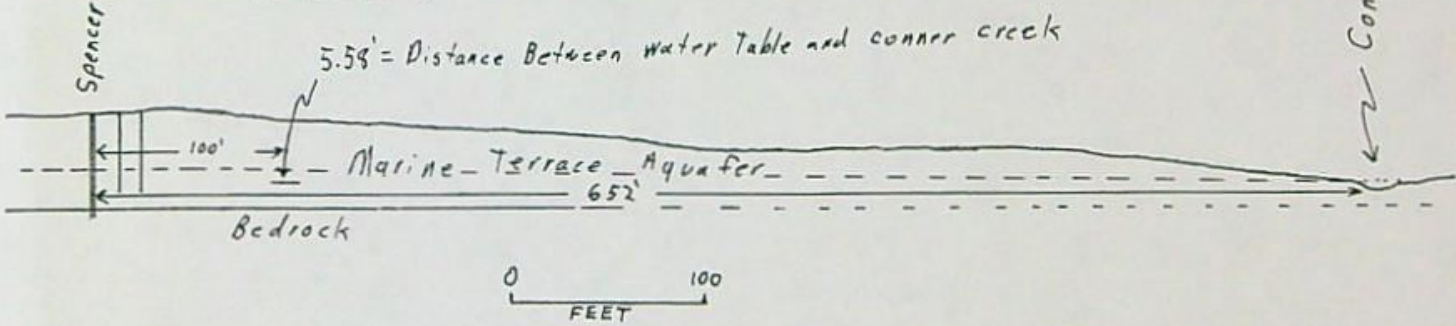
The following presents a schematic of the Spencer production well, Monitor wells r₁ and r₂, distances and thicknesses of water tables and Conner Creek.

DRAWING #1



Where does
 5.58' come
 from?

DRAWING #2



From the above information and using the determined transmissibility of the aquifer, a calculation was made to find the expected Pump Rate needed in Spencer Well #1 to produce a drawdown of 5.58 feet in an imaginary monitor well at distance 100 feet from Spencer well at 100 pumping days. This drawdown of 5.58' would be in level with Conner Creek but would still not influence Conner Creek through hydrogeologic connection.

Given: $r = 100$ feet and $Z_r = 5.58$ feet $t = 100$ days

$$u = \frac{100^2 \times 0.174}{4 \times 2,270 \times 100} = 0.001916 \quad \text{Therefore from tabel 6-3}$$

$$W(u) = 5.698 \quad \text{and} \quad 5.58 = \frac{q \times 5.698}{4 \times \pi \times 2,270} \quad \text{so } q = 27934 \text{ ft}^3/\text{day}$$

$$= 144 \text{ gpm}$$

Therefore to pull the water table down 5.58 feet at a distance of 100 feet from the well and pumping 100 days, it will be necessary to pump at 144 gallons per minute.

CONCLUSIONS

From the above we conclude that a proposed pump rate at the Spencer #1 well during the dry season, as the pump test was conducted, of at least 100 gallons per minute will not interfere or be interconnected with Conner Creek to the south.

Although we believe that a pump rate of about 100 gpm over a period of 100 days will not connect with Conner Creek, the limited permeability with respect to the aquifer thickness will limit the pump yield. In any case, the available pump yield can be increased when the water table is higher and decreased when the natural water table is lower.

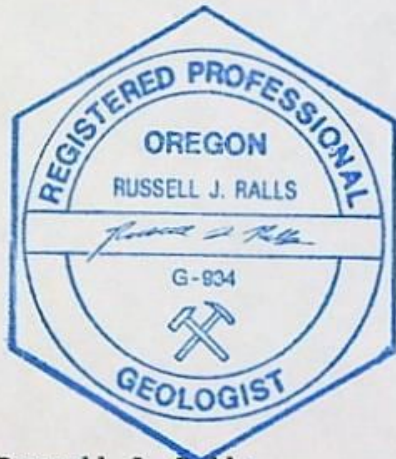
The estimated permeability of .0597 ft/min., is consistent with general permeabilities of coarse sands as encountered in the well bore. It is further believed that unrecorded thin clay layers within the aquifer impede or slow down the vertical migration of water within the aquifer, which accounts for the very tight cone of depression formed during the pump tests.

LIMITATIONS

This hydrogeologic report is believed to represent the geology and hydrogeology of the project area. The evaluations and conclusions presented herein, are believed representative of the well and its aquifer, but are limited to within the scope of work performed.

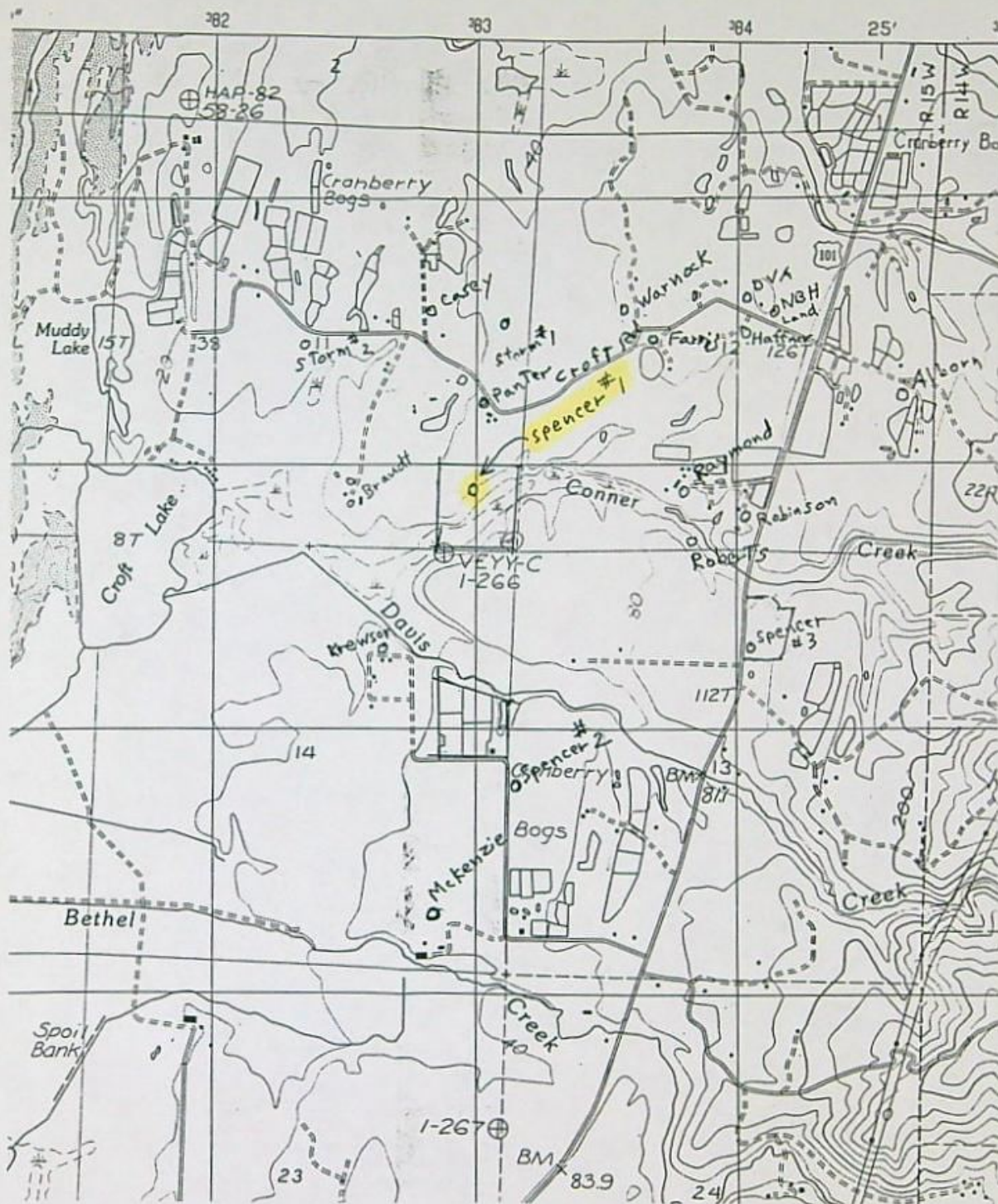
It has been a pleasure to be of service to you, and if there are questions concerning this report or its findings, please contact us.

Respectfully yours,



Russell J. Ralls

VICINITY MAP
U.S.G.S. 7½"



1 inch = 1000 feet

R. J. RALLS - GEOLOGIST

STATE OF OREGON
WATER WELL REPORT
(as required by ORS 537.765)

WATER RESOURCES DEPT. #1
SALEM, OREGON (START CARD) #

T30s/R15w/11d
16053

(1) OWNER: HARRY SPENCER Well Number: 39
Name GROWTH UNLIMITED TREE FARM
Address P.O. BOX 291
City LANGLOIS State OR. Zip 97450

(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 57'2"

Explosives used Yes No Type _____ Amount _____

HOLE		SEAL		Amount	
Diameter	From To	Material	From To	sacks or pounds	
10"	0 18	CEMENT	0 18	800#	
6"	18 58				

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: 6"	+1 37'11/4"	.250	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Liner:			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Final location of shoe(s) _____

(7) PERFORATIONS/SCREENS:

Perforations Method TELESCOPE
 Screens Type JOHNSON Material STAINLESS STEEL

From	To	Slot size	Number	Diameter	Tele/pipe size	Casing	Liner
38'10"	44'9"	.015			6"	<input type="checkbox"/>	<input type="checkbox"/>
44'9"	50'1/4"	.012			6"	<input type="checkbox"/>	<input type="checkbox"/>
50'1/4"	55'3/4"	.010			6"	<input type="checkbox"/>	<input type="checkbox"/>
55'3/4"	57'2"				5"	<input checked="" type="checkbox"/>	<input type="checkbox"/>

(8) WELL TESTS: Minimum testing time is 1 hour

Pump Bailer Air Flowing
 Artesian

Yield gal/min 42 Drawdown 6'9" Drill stem at @ 53' Time 1 hr.

Temperature of water 52° 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 COOS Latitude _____ Longitude _____
Township 30 S Nor S, Range 15 W E or W, WM.
Section 11 SE SE
Tax Lot 1600 Lot _____ Block _____ Subdivision _____
Street Address of Well (or nearest address) CROFT ROAD -
OFF OF 101 SOUTH.

(10) STATIC WATER LEVEL:

25'6" ft. below land surface. Date 3/13/90
Artesian pressure _____ lb. per square inch. Date _____

(11) WATER BEARING ZONES:

Depth at which water was first found 25'

From	To	Estimated Flow Rate	SWL
<u>23'</u>	<u>55'</u>	<u>80</u>	<u>25'6"</u>

(12) WELL LOG:

Ground elevation ± 300'

Material	From	To	SWL
CLAY, BROWN	0	6	
SAND w/ GRAVEL, BROWN	6	18	
GRAVEL w/ SAND, MED., BROWN	18	20	
GRAVEL w/ SAND, MED., GRAY	20	23	
GRAVEL w/ SAND, MED., RED	23	24	25'6"
SAND w/ GRAVEL, FINE, BROWN	24	28	
CLAY w/ SAND, BROWN	28	30	
SAND w/ GRAVEL, FINE, BROWN	30	45	
GRAVEL w/ SAND, MED., BROWN	45	50	
SAND, MED., BROWN	50	55	
CLAY, GRAY	55	58	

Date started 3/12/90 Completed 3/20/90

(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 _____ 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 Tom Mack WWC Number 1493 Date 3/20/90

Pump Test #1

Pump Rate ----- 48 to 52 Gallons per Minute
 50 GPM Average
 Time of Start ----- 12:25 PM 8/26/91 (August 26, 1991)
 Time of Stop ----- 12:25 PM 8/28/91 (August 28, 1991)
 Water Level Beginning of test-28 feet 4 inches below ground surface

Monitor #1 Well (radius = 15 feet)

	TIME			DRAWDOWN		R^2/t (ft ² X10 ⁵)
	Minutes	Hours		Feet	Inches	
Aug. 26	0	0	12:25 PM	0	0	
	4	0.066		0.8125	9.75	0.81
	6	0.1		1.00	12.0	0.54
	12	0.2		1.15625	13.87	.27
	22	0.37		1.1875	14.25	.15
	32	0.53		1.2708	15.25	.10
	42	0.70		1.28	15.36	.077
	52	0.87		1.29	15.48	.06
	67	1.12		1.31	15.72	.048
	99	1.65		1.34	16.08	.033
	122	2.03		1.343	16.12	.0265
	202	3.37		1.687	16.12	.0165
	267	4.45		1.563	18.76	.0121
	382	6.37		1.667	20.00	.0085
	607	10.12		1.563	18.76	.0053
	1057	17.62	Aug. 27	1.8125	21.75	.0031
	1442	24.03		1.77	21.24	.0023
	1807	30.12		1.833	22.00	.0018
	2877	47.95	Aug. 28	1.948	23.38	.0011

Monitor #2 Well (radius = 25.13 feet)

Aug. 26	4	0.07	12:25 PM	0.775	9.3	2.16
	6	0.10		0.83	10.0	1.52
	16	0.27		1.00	12.0	0.56
	26	0.43		1.042	12.5	.35
	36	0.60		1.083	13.00	.252
	46	0.77		1.09375	13.125	.198
	61	1.02		1.11458	13.375	.149
	126	2.1		1.167	14.00	.072
	201	3.35		1.458	17.50	.045
	266	4.43		1.375	16.50	.034
	381	6.35		1.3125	15.75	.024
	606	10.10		1.3958	16.75	.015
	1056	17.60	Aug. 27	1.50	18.00	.0086
	1441	24.02		1.5625	18.75	.0063
	1806	30.10		1.625	19.50	.0050
	2876	47.93	Aug. 28	1.75	21.00	.0031

PUMP TEST #2

Greenhouse Well

Pump Rate average ----- 69 gpm (13,314 Ft³/day)

Time of Start ----- 11:00 AM 8/29/91 (August 29, 1991)

Time of Stop ----- 8:25 PM 9/ 2/91 (September 2, 1991)

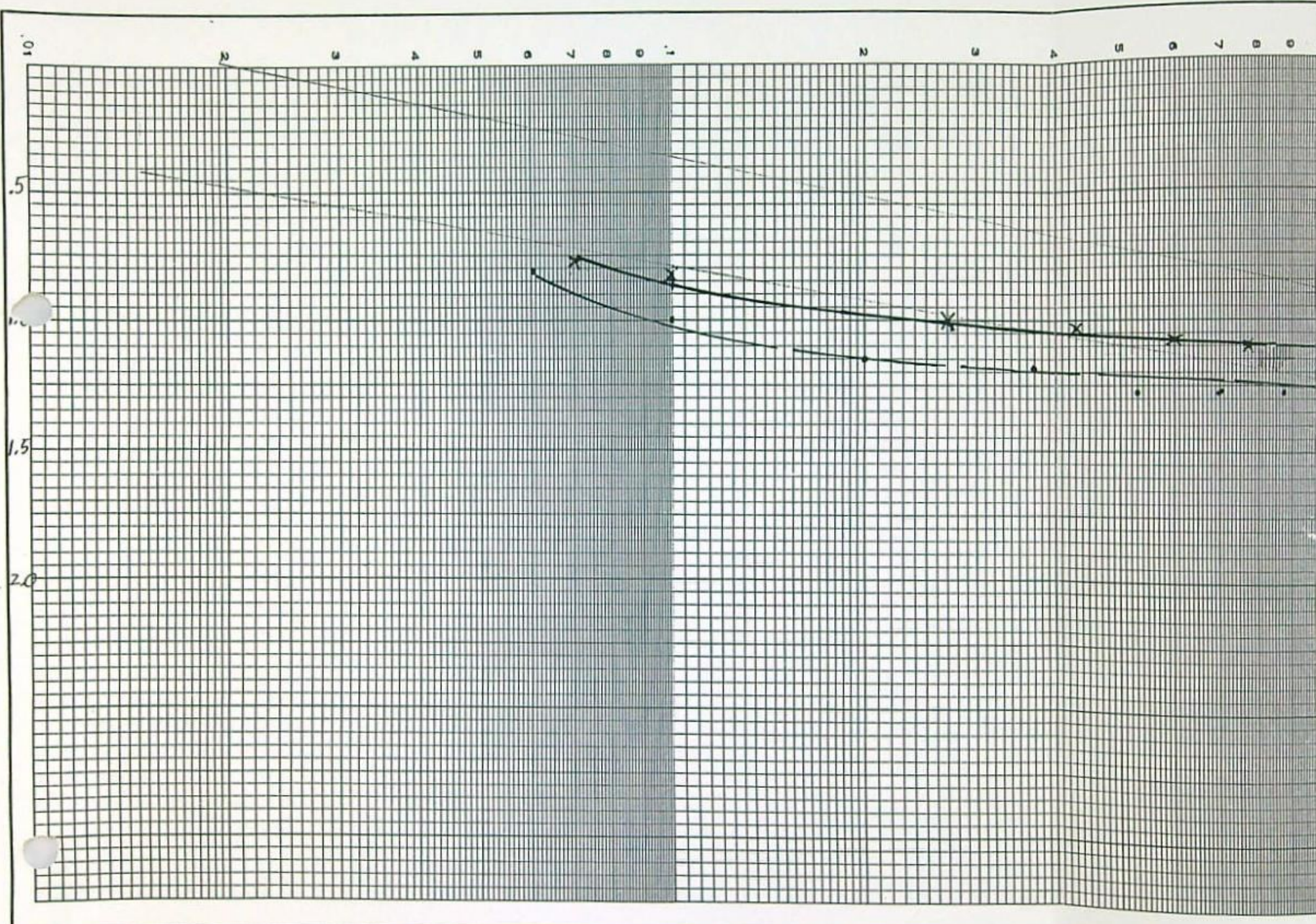
Water level beginning of test ---- 28 feet 7½ inches below ground surface *28.625'*

Monitor #1 Well (Radius = 15 feet)

TIME		DRAWDOWN		R ² /t (ft ² X10 ⁵)
Minutes	Hours	Feet	Inches	
14	.233	1.01	12.125	.232
29	.483	1.23	14.75	.112
44	.733	1.25	15.00	.0736
59	.983	1.27	15.25	.0549
74	1.233	1.29	15.50	.0438
89	1.48	1.33	16.00	.0364
104	1.733	1.34	16.125	.0312
119	1.983	1.364	16.375	.0272
239	3.98	1.54	18.50	.0136
359	5.98	1.68	20.125	.009
506	8.43	1.8125	21.75	.0064
599	9.98	1.875	22.50	.0054
1139	18.98	2.146	25.75	.0028
1679	27.98	2.33	28.00	.0019
2219	36.98	2.489	29.875	.0015
2759	45.98	2.594	31.125	.0012
3299	54.98	2.6875	32.25	.00098
4139	68.98	2.8125	33.75	.00078
5599	93.32	2.958	35.50	.00057
6324	107.43	3.021	36.252	.00051

Monitor #2 Well (Radius = 25.13 feet)

16	.27	1.00	12.00	.568
31	.52	1.04	12.5	.2933
46	.77	1.073	12.875	.1977
61	1.017	1.101	13.25	.1491
76	1.267	1.114	13.375	.1197
91	1.62	1.146	13.75	.0999
106	1.767	1.156	13.875	.0858
121	2.012	1.1875	14.25	.0751
241	4.012	1.354	16.25	.0377
361	6.017	1.469	17.625	.0252
508	8.47	1.58	19.00	.0179
601	10.02	1.646	19.75	.0151
1141	19.02	1.906	22.875	.0079
1681	28.02	2.0625	24.75	.0054
2221	37.02	2.1875	26.25	.0041
2761	46.02	2.292	27.50	.0033
3301	55.02	2.375	28.50	.00275
4141	69.02	2.489	29.875	.0022
5601	93.35	2.625	31.5	.0016
6326	105.43	2.677	32.124	



M k

Sw

T_{cor}

Rint

Rcor

M k

Sw

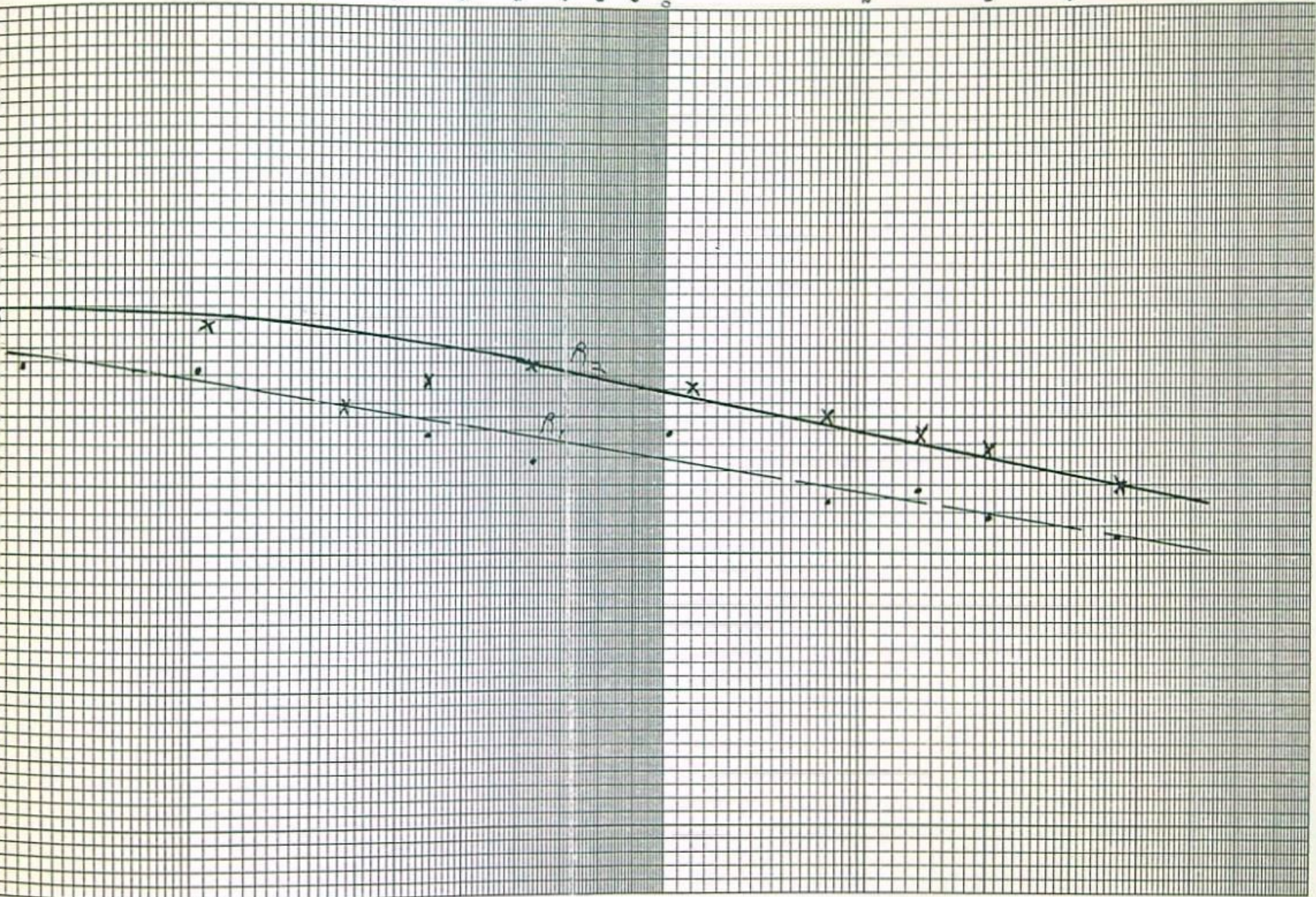
T_{cor}

Rint

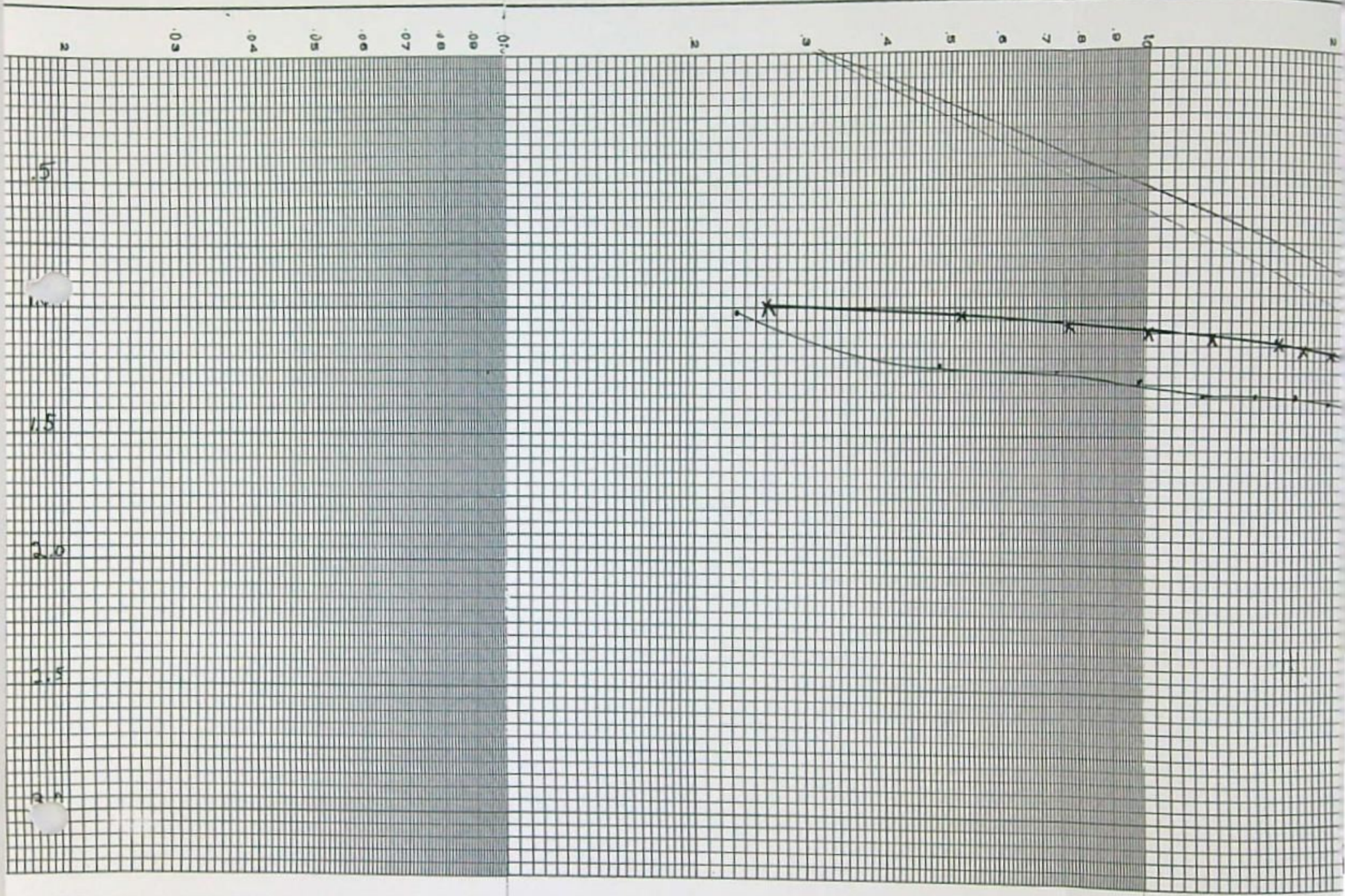
Rcor

Pump Test #1

0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50

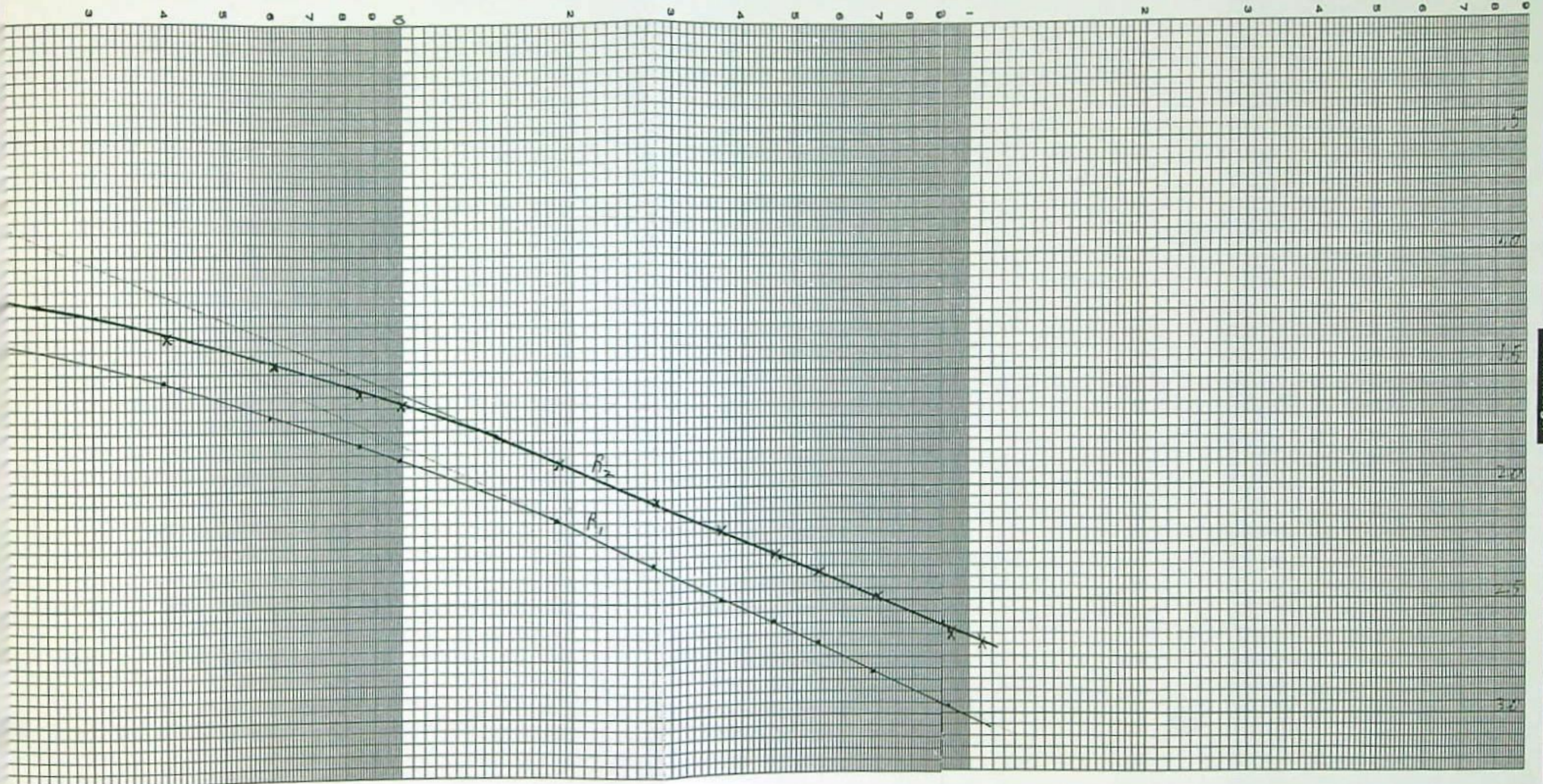


M	k	Sw	T _{cor}	R _{int}	R _{cor}	R _{xo}	CP	Por	SP	Gen
---	---	----	------------------	------------------	------------------	-----------------	----	-----	----	-----



k	Sw	T _{cor}	Rint	Rcor	M	k	Sw	T _{cor}	Rint	Rcor	M	k
---	----	------------------	------	------	---	---	----	------------------	------	------	---	---

Pump Test #2

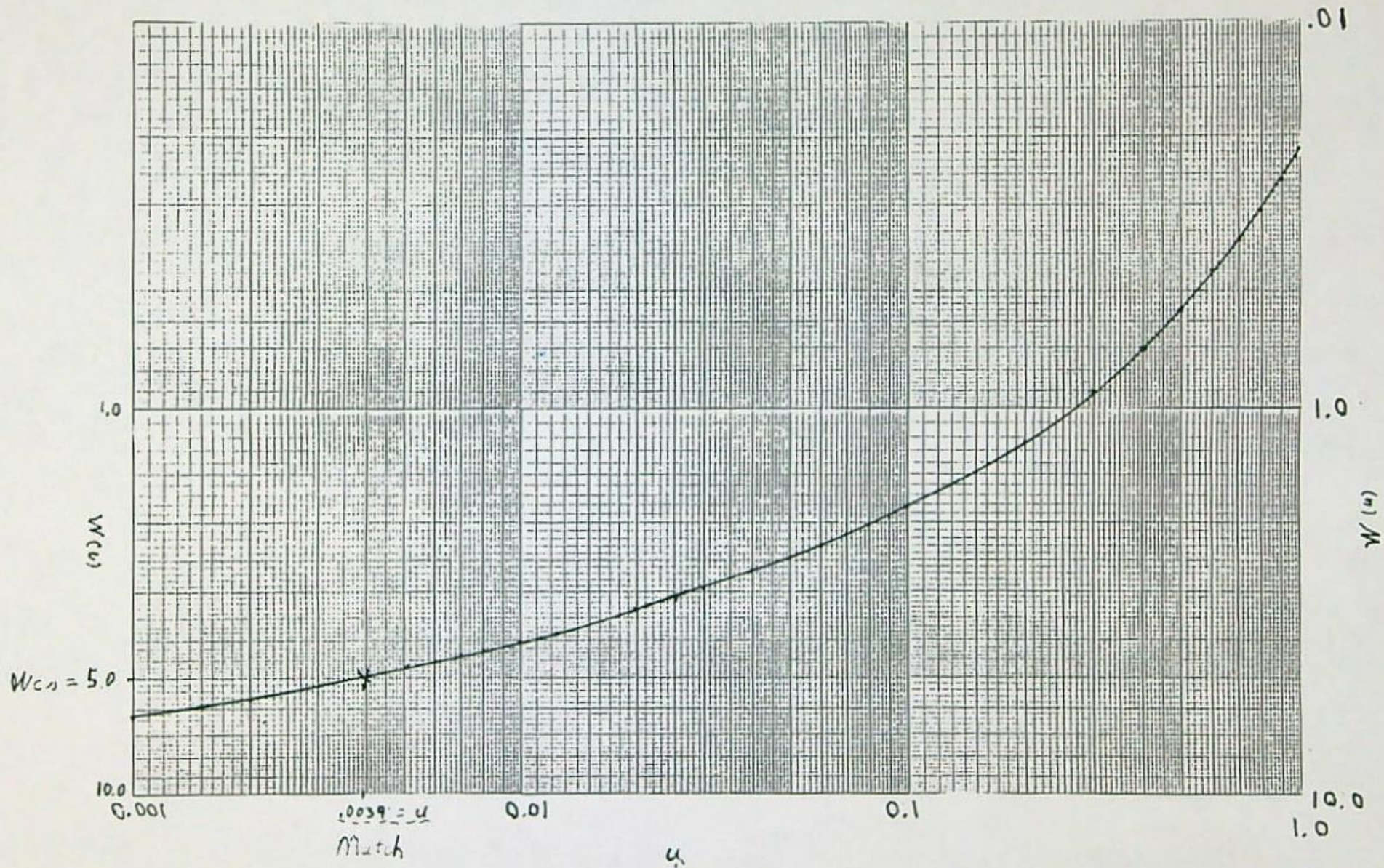


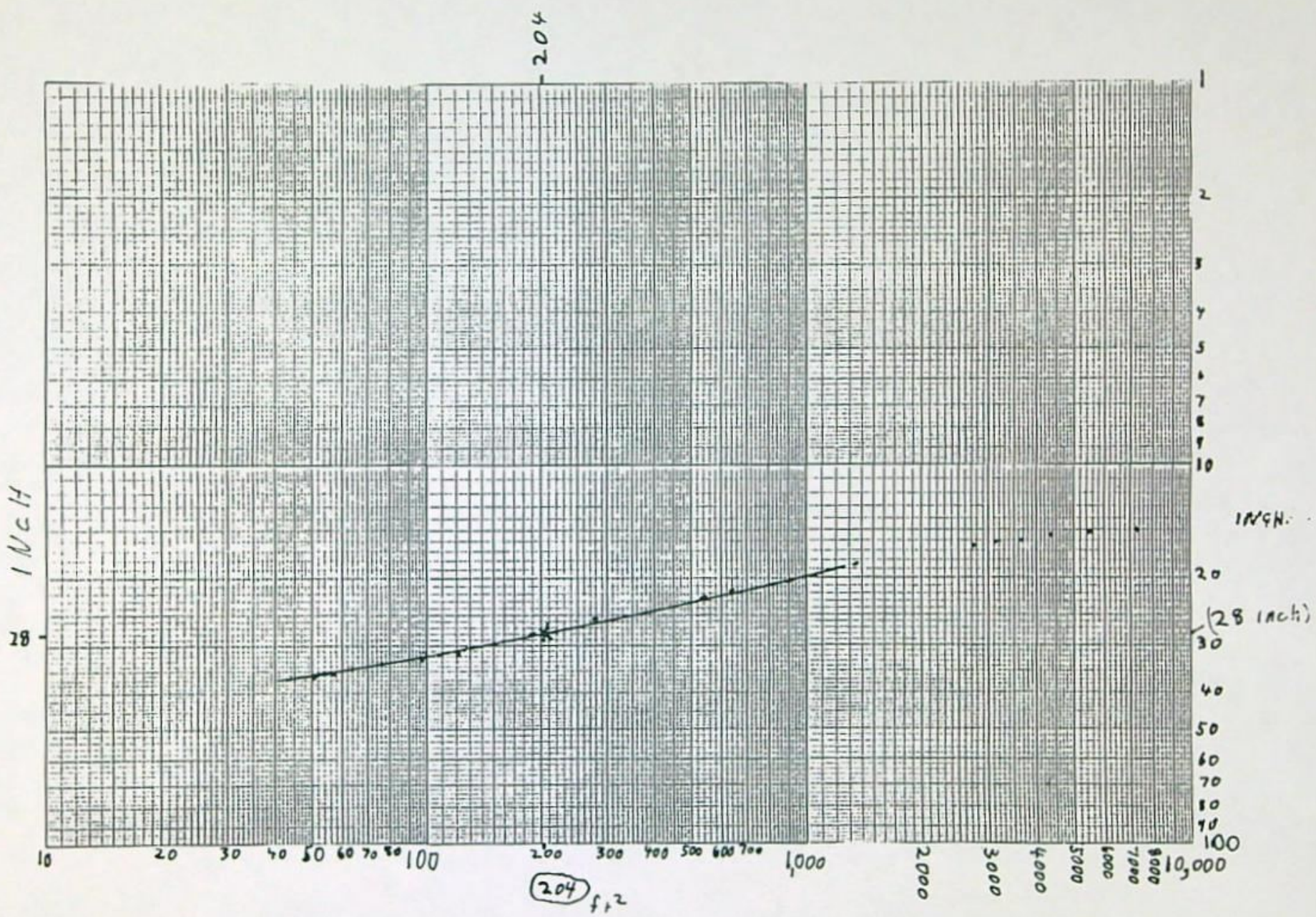
Sw	T _{cor}	R _{int}	R _{cor}	R _{xo}	CP	Por	SP	Gen	R _{xo}	CP	Por	SP	Gen
----	------------------	------------------	------------------	-----------------	----	-----	----	-----	-----------------	----	-----	----	-----

Table 6-3 Values of $W(u)$ for various values of u

u	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0
$\times 1$	0.219	0.049	0.013	0.0038	0.00114	0.00036	0.00012	0.000038	0.000012
$\times 10^{-1}$	1.82	1.22	0.91	0.70	0.56	0.45	0.37	0.31	0.26
$\times 10^{-2}$	4.04	3.35	2.96	2.68	2.48	2.30	2.15	2.03	1.94
$\times 10^{-3}$	6.33	5.64	5.23	4.95	4.73	4.54	4.39	4.26	4.14
$\times 10^{-4}$	8.63	7.94	7.53	7.25	7.02	6.84	6.69	6.55	6.44
$\times 10^{-5}$	10.95	10.24	9.84	9.55	9.33	9.14	8.99	8.86	8.74
$\times 10^{-6}$	13.24	12.55	12.14	11.85	11.63	11.45	11.29	11.16	11.04
$\times 10^{-7}$	15.54	14.85	14.44	14.15	13.93	13.75	13.60	13.46	13.34
$\times 10^{-8}$	17.84	17.15	16.74	16.46	16.23	16.05	15.90	15.76	15.65
$\times 10^{-9}$	20.15	19.45	19.05	18.76	18.54	18.35	18.20	18.07	17.95
$\times 10^{-10}$	22.45	21.76	21.35	21.06	20.84	20.66	20.50	20.37	20.25
$\times 10^{-11}$	24.75	24.06	23.65	23.36	23.14	22.95	22.81	22.67	22.55
$\times 10^{-12}$	27.05	26.36	25.95	25.66	25.44	25.26	25.11	24.97	24.86
$\times 10^{-13}$	29.36	28.66	28.26	27.97	27.75	27.56	27.41	27.28	27.16
$\times 10^{-14}$	31.66	30.97	30.56	30.27	30.05	29.87	29.71	29.58	29.46
$\times 10^{-15}$	33.96	33.27	32.86	32.58	32.35	32.17	32.02	31.88	31.76

Source: Adapted from [21].





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GLOSSARY

- Alteration -Changes brought about by physical or chemical means in the minerals of a rock; i.e. from one mineral to another or one fabric to another.
- Alteration Thermal -Change brought about by raising or lowering of temperatures.
- Alteration Dynamic -Change brought about by force and or movements.
- Broken Formation -A term used in formations which have undergone a process of break up, twisting, rotation and other forces.
- Deformation -To deform; Rearrange rock under earth forces.
- Deformation Shear Zones -A fault or fracture which displays crushed or broken material generally in a wide area of parallel faults.
- Deformation Fracture-The dislocation or splitting of a rock or mineral.
- Faults -A large fracture cutting through beds or formations generally in a sheet fashion.
- Fabrics Rock -The consistency or makeup of a rock including character in respect to it's physical features.
- Fabrics Sedimentary -Those rock fabrics in a sediment which were formed during the process of deposition or sedimentation and also those processes shortly thereafter; i.e. Bedding, Cut & Fill Structures, layering, ect. ect.
- Fabrics Metamorphic -Rock Fabrics associated with metamorphism; (which is closely brought about by Alteration).
- Fabrics Volcanic -Fabrics associated with volcanic rocks; Lava, Basalt, Tuffs, Pumice ect. ect..
- Jurassic -Second period of the Mesozoic era, in @ the time between 190 and 135 million years ago.
- Lithologies -A word pertaining to rocks and their compositions in respect to origin.
- Oligocene -An early epoch of the Tertiary, beginning about 40 million years ago and ending about 25 million years ago.
- Otter Point Fm. -An assymlage of Jurassic Deep Sea sedimentary and volcanic rocks.
- Pleistocene -An epoch of the latest age, beginning about 2 million years ago and ending about 10,000 years ago.
- Quaternary -A period of time including the Pleistocene up to today.
- Tectonic -A term used to describe the forces and motions in the earths crust.

R. J. RALLS - GEOLOGIST

RECEIVED

P.O. Box 389 — 15693 Ocean View Dr.
Brookings, Oregon 97415

Reference File G-12685

OCT 21 1991

Phone

WATER RES (503) 469-6053
SALEM, OREGON

October 5, 1991

Well # 2 on application Map

h77702:05-002
-5tk072:05-7557

TO: Mr. Harry Spencer
Growth Unlimited Nursery, Inc.
P. O. Box 291
Langlois, OR, 97450

SUBJECT: Hydrogeologic evaluation of Well located near the
Southeast corner of Section 11, T. 30 S., R. 15 W., W.&M.
Coos County, Oregon

Dear Mr. Spencer:

The following present our results of a hydrogeologic evaluation of the aquifer in the above subject well.

The purpose of this report is to address the Geology and Hydrogeology of the water bearing aquifer, with respect to utilization of the water in the aquifer by pumping from the well. It is understood that you intend to pump from the well a volume of water needed with respect to agricultural irrigation.

SCOPE OF WORK

The work performed for this report includes a test pumping of the well with respect to monitoring of the well and an adjacent monitor well. The work also includes measurements of the recovery of the well and monitor well after the pump test was finished.

The work also included site visits, general geologic reconnaissance of the area, review and evaluation of nearby Well driller logs of other wells in in the area, review of available geologic and hydrogeologic literature published by Government sources and calculations using Theis (1935) and Theim formulas for Hydrogeologic evaluations of the Transmissibilities and Storage Constants of the Aquifer.

NEARBY TOPOGRAPHY

At the well site and to the east and south, the topography is nearly flat with a gentle 5° western grade. From the well to the north and northwest, the ground surface slopes gently, about 8° towards Conner Creek.

Conner Creek is located at closest approach to the well at about 500 feet to the Northwest and about 39.36 feet below the ground surface at the well. These measurements were taken in September, 1991.

GEOLOGY

Bedrock

Bedrock is not exposed in the vicinity to the well, but was encountered at the bottom of the well at about 55 feet below ground surface. Bedrock in the well consisted of claystone, gray and hard, which makes up the aquatard upon which the wells aquafer rests.

From nearby well logs, it is interpreted that this bedrock represents an old marine sedimentary formation belonging to perhaps one of the following formations: Otter Point Formation - Late Jurassic; Myrtle Group formations - Late or Early Cretaceous; Various Tertiary Formations. In any case, the bedrock formation at the well and in the nearby area is nearly flat in its interface with the overlying Marine Terrace formation.

Marine Terrace Formation

From the bedrock aquatard to the surface and exposed in the nearby area to the well, there exists the aquafer of the well starting at the bottom with clayey gravels grading up to sandy gravels and grading up to clayey gravels and within 20 feet of the surface fine well sorted sands.

These materials represent a Pleistocene deposited Marine Terrace formation believed to belong to the Whiskey Run Terrace as observed in exposures at Whiskey Run north of Bandon, Oregon. These Marine sands, gravels and interbeds were deposits both unconformably and disconformably onto the peneplained upper surface of the bedrock during the latest interglacial warm spell when the earth's sea levels were 60 to 100 feet higher than today.

This Marine Terrace formation was water laid and represents the aquafer in the well unconfined in character.

HYDROGEOLOGY

The hydrogeology of the aquafer in the well was determined by Pump Test, first by monitoring drawdown under a constant pump rate in an adjacent monitor well to the pumping well and second, by measuring recovery in the pumping well after the pump was turned off.

The pump test data for the monitor well is shown in Appendix B and the pump data for the pumping well is shown in Appendix C.

Evaluations

The Transmissibility and Storage Constant for the aquafer was determined in two ways; 1) using a heat-flow analogy developed by C. V. Theis in 1935 as:

$$Z_r = \frac{q}{4\pi T} \int_0^{\infty} \frac{e^{-u}}{u} du \quad \text{and} \quad S_c = \frac{4uT}{r^2/t}$$

where $\frac{e^{-u}}{u} du = W(u)$ or a well function of u ;

and 2) using modified Theis equation where u is small as:

$$T = \frac{2.3 q}{4 \pi \Delta Z} \log \frac{t_2}{t_1} \quad \text{and} \quad S_c = \frac{2.25 T t_0}{r^2}$$

1)

Therefore using the Theis heat-analog and graphing on log-log the parameters of r^2/t (distance r from the monitor well to the pumping well) over t time since pumping began, versus Z drawdown of the water level in the monitor well since pumping began, a graph of Z versus r^2/t can be drawn as shown on Appendix D.

Because u is a hydrogeologic constant with respect to each aquifer unconfined, and can be represented as a function (W of u) or well function of u , then;

$$W(u) = -0.5772 - \ln u + u - \frac{u^2}{2 \cdot 2!} + \frac{u^3}{2 \cdot 2!} \dots \text{so on}$$

values of $W(u)$ can be calculated such as shown on Table 1 Appendix E.

A curve of $W(u)$ versus u is shown on log-log graph Appendix F.

Because the type curve of $W(u)$ versus u should be constant with the type curve Z versus r^2/t , match points can be found where the two curves coincide to provide constants for the Theis heat-flow analogy equation.

2)

Where the u is small a modified equation can be used based on Z (drawdown) Versus t (time) since began pumping. The data from Appendix B is drawn on log-linear, Appendix F.

Evaluations

1) Using Theis heat-analog and the parameters of the pump test we have:

Pumping rate ----- $q = 33\text{gpm} = 6368 \text{ ft}^3/\text{day}$

Distance of monitor well from pumping well - $r = 12.41$ feet

Superimposing graphs Appendix D over Appendix F we have match points:

u -----	0.0001
$W(u)$ -----	8.7
r^2/t -----	40.00
Z -----	64 inches = 5.33 feet

Therefore:

$$T \text{ (transmissibility)} = \frac{q}{4\pi Z} W(u) = \frac{6,368}{4 \cdot 5.33} \text{ (8.7)}$$

$$T = \frac{827 \text{ ft}^2/\text{day}}{4}$$

$$S_c \text{ (Storage Constant)} = \frac{4 u T}{r^2/t} = \frac{4 \times .0001 \times 827}{40.00}$$

$$S_c = .0083$$

2) Using modified Theis equation we have:

From Graph Appendix G t_0 ----- .012 hours = .0005 days

ΔZ ----- (5.3-3.92) = 1.38

$\log \frac{100}{10}$ ----- 1.0

$$T \text{ (transmissibility)} = \frac{2.3 q}{4\pi \Delta Z} \log \frac{100}{10} = \frac{2.3 \times 6,368}{4 \pi \cdot 1.38}$$

$$T = 846 \text{ ft}^2/\text{day}$$

$$S_c \text{ (Storage Constant)} = \frac{2.25 T t_o}{r^2} = \frac{2.25 \times 846 \times .012}{154 \times 24}$$

$$S_c = .0062$$

From the analog equation $T = 827 \text{ ft}^2/\text{day}$ compared to $T = 847 \text{ ft}^2/\text{day}$ using the modified equation. Because u is small these two calculations are very close.

Total thickness of the unconfined aquifer is, from well drillers log Appendix A, about 23 feet thick. Based on an average across the verticle in the aquifer the permeability is therefore:

$$K = \frac{\text{Transmissibility}}{\text{Thickness of Aquifer}} = \frac{827}{23} = .025 \text{ ft/min}$$

A permeability of .025 ft/min is well within normal range for a pebbly sand with intermixes of clay. It is further beleived that the water contained aquafer is tighter at the top than near the bottom.

Hydrogeologic Connections

Based on the above information and that within the Appendix's and the calculations of Transmissibility, hydrogeologic evaluations can be made with respect to maximum pumping yield using existing cased well over a given period of pumping time. From this maximum yield, determinations can be likewise made with respect to any hydrogeologic connections to nearby Creeks, such as Conner Creek, if possible.

1) Maximum Yield

Assume a drawdown at closest approach to the well of about $\frac{1}{2}$ foot, and assume a maximum drawdown of not more than 20.5 feet, over a period of not more than $\frac{1}{2}$ day pumping. The following yield is:

Given: $r = .5 \text{ feet}$ $Z_r = 20.5 \text{ feet}$ $t = .5 \text{ days}$

$$u = \frac{.5^2 \times .0083}{4 \times 827 \times .5} = .0000012 \text{ of } 1.2 \times 10^{-6} \text{ from Appendix F}$$

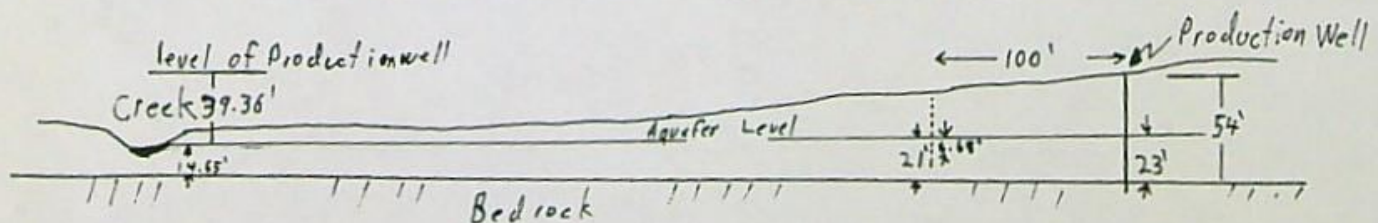
$W(u) = 13.102$ and from Theis equation analog

$$Z = \frac{q W(u)}{4 \pi T} \text{ where } 20.5 = \frac{q \times 13.102}{4 \times 827 \times T} \text{ Therefore } q = 16260 \text{ ft}^3/\text{day}$$

$$= 84 \text{ gpm}$$

2) Hydrogeologic Connection to Conner Creek

Assume a monitor well of not more than 100 feet northwest of the pumping well using the above maximum pumping of 84 gpm in the production well, the drawdown in a monitor well at such distance would be as follows:



DRAWING #1

From the above drawing, we can obtain the following parameters for evaluating expected drawdown in a well monitor 100 feet from the production well towards the creek.

$$\begin{aligned} \text{Given: } T &= 827 & S_c &= .0083 \\ r &= 100 \text{ feet} & q &= 16,260 \text{ ft}^2/\text{day} & t &= .5 \text{ days} \\ u &= \frac{r^2 S_c}{4Tt} = \frac{10000 \times .0083}{4 \times 827 \times .5} = .05 \text{ or } 5 \times 10^{-2} & & \text{From Appendix F} \\ W(u) &= 2.48 & & \text{and so} \\ Z \text{ (drawdown)} &= \frac{q W(u)}{4\pi T} = \frac{16260 \times 2.48}{4 \times \pi \times 827} = 3.9 \text{ feet drawdown} \end{aligned}$$

From figure Drawing #1, the distance verticle from the level of the creek to expected aquafer from a point 100 feet away from the pumping well towards the creek is 6.68 feet separation. The expected drawdown of 3.9 feet with a pump rate of 84 gpm will not in any way connect or interfere with Conner Creek.

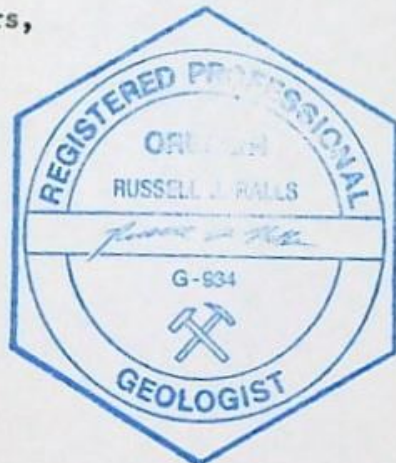
CONCLUSIONS

Production of well water from the well subject in this report will not connect or interfere with water in Conner Creek or any other nearby creek. Because the transmissibility and thin zone of water aquafer is limited, only a limited pump rate can be obtained. In this way any pump rate attempted will not damage or interfere with water flow in the nearby creek of Conner Creek, as during pump rates exceeding 84 gpm over $\frac{1}{2}$ day will likely go dry.

Recharge of the Aquafer is nearly immediate, see Appendix C, after pumping has been turned off.

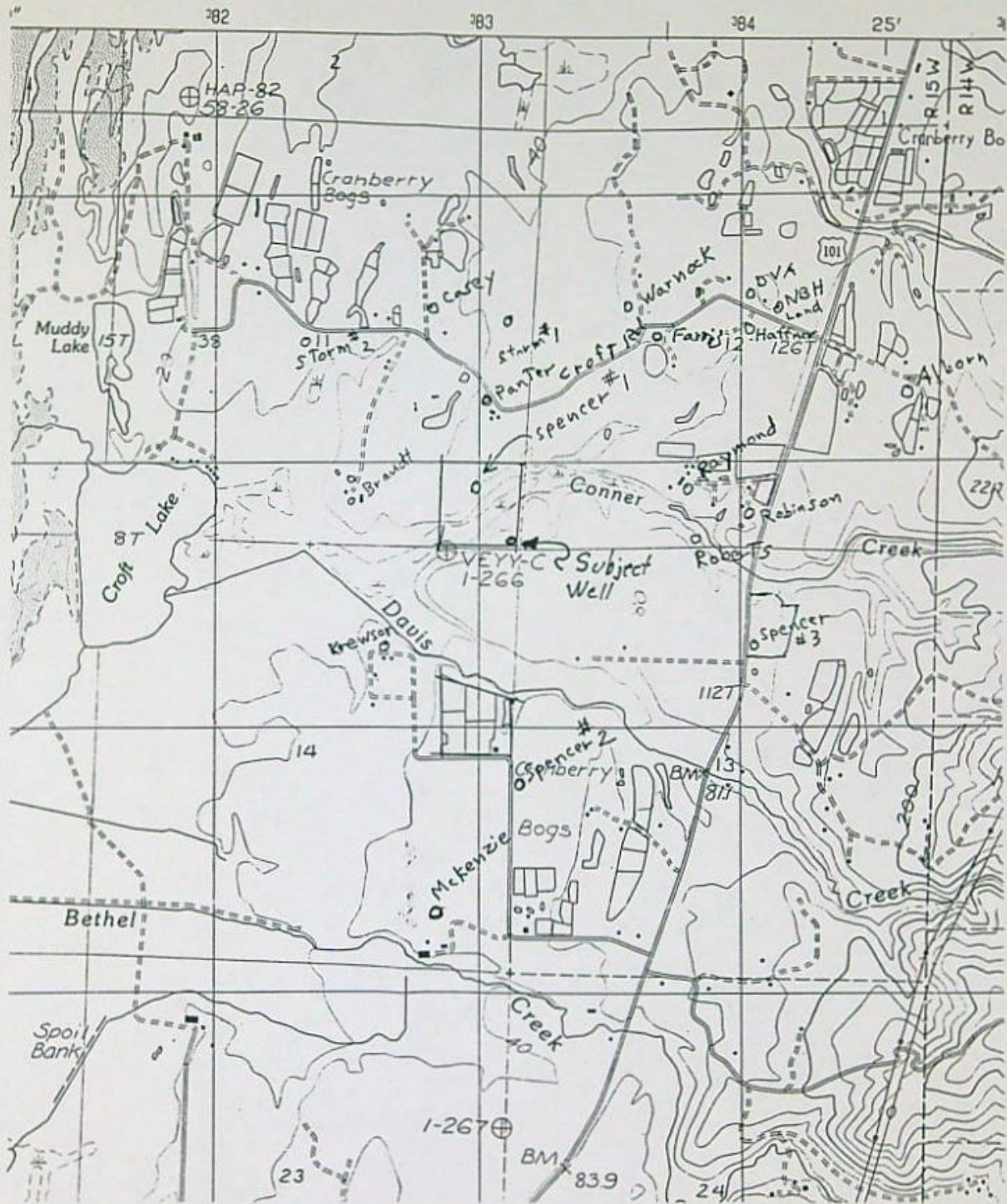
Because this is a new well, it can be expected that the permeabilities of the well bore materials will increase with likewise increase in Transmissibility. However, it is not likely that the increase will be significant or underscore the above conclusions.

Respectively yours,



Russell J. Ralls

VICINITY MAP
U.S.G.S. 7 1/2"



1 inch = 1000 feet

R. J. RALLS - GEOLOGIST

New Well @ SE Cor. Sec. 11
Croft Piece

Appendix A
T30S/R15W/11
26375

STATE OF OREGON
WATER WELL REPORT
(as required by ORS 537.765)

COURT 271

(START CARD) #

(1) OWNER: Well Number: 112
Name Herry Spomer Co. Inc. dba Unlimited Ties
Address _____
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 57 1/2 ft.
Explosives used Yes No Type _____ Amount _____

HOLE		SEAL		Amount sacks or pounds
Diameter	From To	Material	From To	
10	0 25	Portenite	0 25	1300 #

How was seal placed: Method A B C D E
 Other Introduced from surface
Backfill placed from _____ ft. to _____ ft. Material _____
Gravel placed from _____ ft. to _____ ft. Size of gravel _____

(6) CASING/LINER:

Casing/Liner	Diameter	From To	Gauge	Material		Type		
				Steel	Plastic	Welded	Threaded	
Casing	6"	+18"	36.875"	29	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Liner					<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Final location of sheets: _____

(7) PERFORATIONS/SCREENS:

Perforations Method Telescope
 Screens Type Johnson Material Stainless Steel

From	To	Slot size	Number	Diameter	Tele/pipe size	Casing	Liner
37 1/2	43 7/8	.016		6"	Tele	<input type="checkbox"/>	<input type="checkbox"/>
43 7/8	48 1/4	.012		6"	Tele	<input type="checkbox"/>	<input type="checkbox"/>
48 1/4	54 1/2	.014		6"	Tele	<input type="checkbox"/>	<input type="checkbox"/>
54 1/2	58 1/2			5"	5" Pipe	<input checked="" type="checkbox"/>	<input type="checkbox"/>

(8) WELL TESTS: Minimum testing time is 1 hour
 Pump Bailer Air Flowing Artesian
Yield gal/min 40 Drawdown 11' for 4 hrs Drill stem at 55' Time 1 hr.

Temperature of water 50' 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 Cook Latitude _____ Longitude _____
Township 30S N or S. Range 15W E or W. WM.
Section 11 SE SE
Tax Lot 1600 Lot _____ Block _____ Subdivision _____
Street Address of Well (or nearest address) CROFT ROAD
OFF OF HWY 101 S. WELCH

(10) STATIC WATER LEVEL: Static Artesian
31' ft. below land surface. Date 8/30/91
Artesian pressure _____ lb. per square inch. Date _____

(11) WATER BEARING ZONES:
Depth at which water was first found 31'

From	To	Estimated Flow Rate	SW
31	54	46 GPM	2

(12) WELL LOG: Ground elevation +130'

Material	From	To	SW
Sandy Clay Brown	0	15	
Clay w/ sand Brown	15	18	
Clay w/ sand Gray	18	22	
Sand Brown Fine	22	26	
Sand/clay + Gravel Fine Brown	26	30	
Sand Gray Medium	30	36	2
Sand w/ Gravel Brown Coarse	36	54	1
Clay w/ Gravel Gray	54	55	
Claystone Gray hard	55	58	

Date started 8/29/91 Completed 9/10/91

(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 knowledge and belief.
Signed John S. Sater II WWC Number 60 Date 26/8/91

(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 Jim Macke WWC Number 119 Date 9/26/91

PUMP TEST #1
DRAWDOWN MONITOR WELL

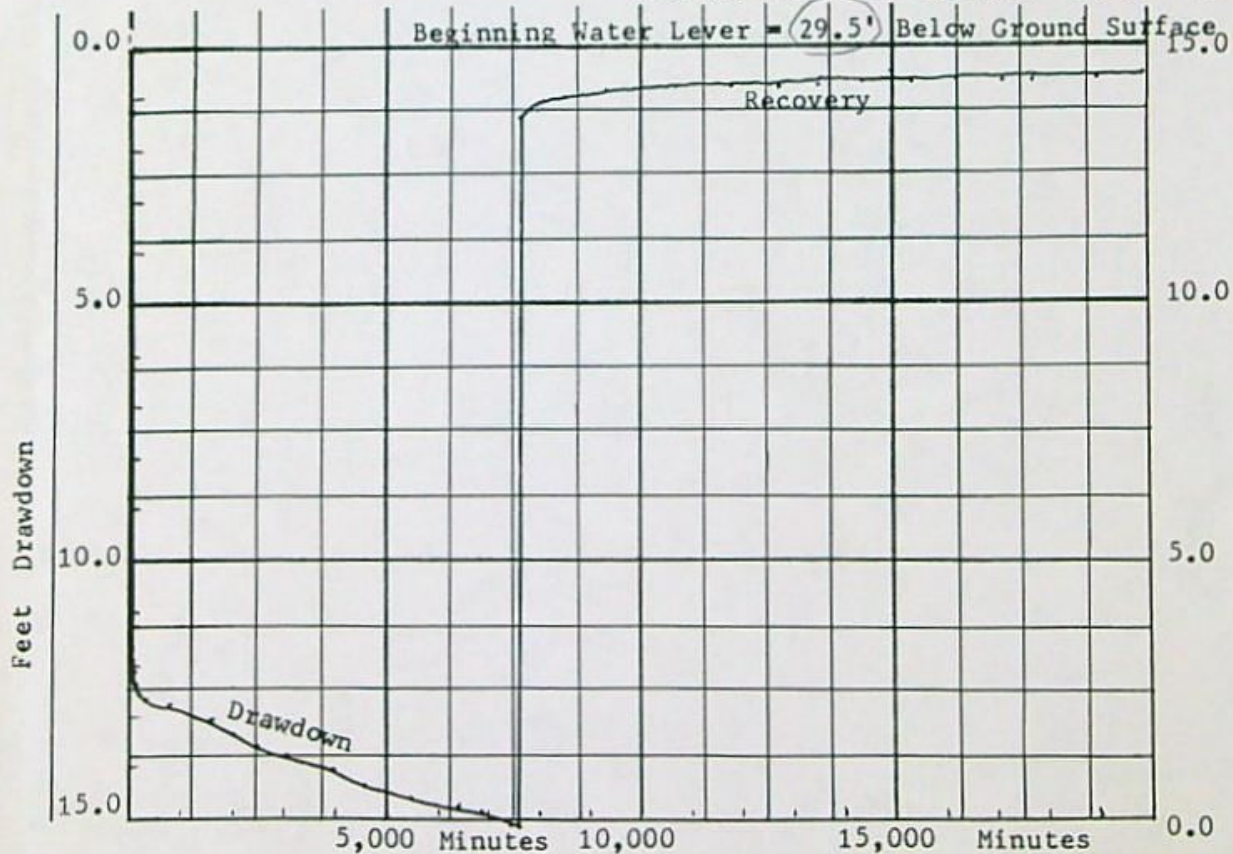
Southeast Corner Well

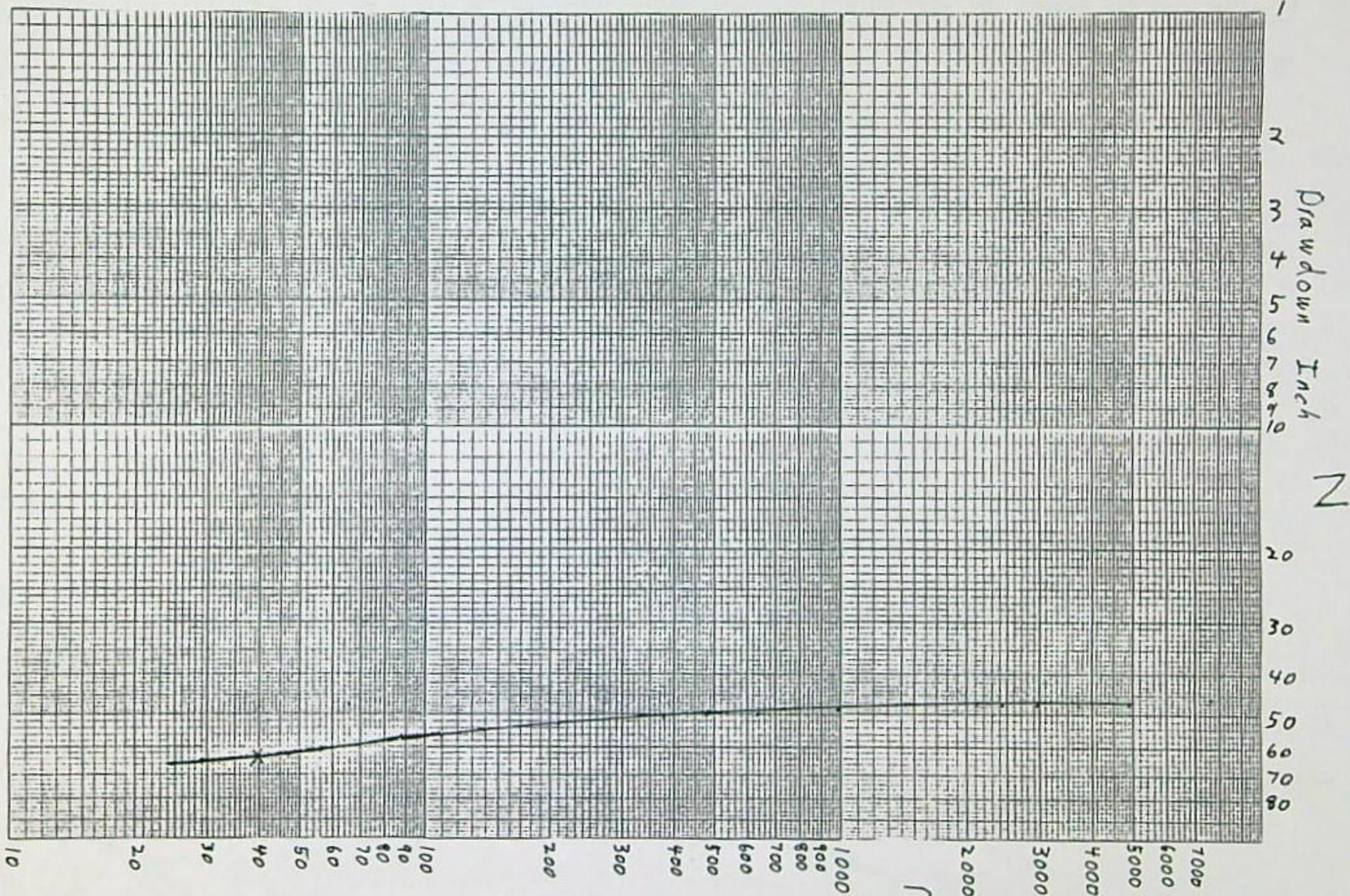
Pump Rate ----- 33 GPM (6,368 Ft³/day)
 Time of Start Pumping ----- 2:30 PM Sept. 14, 1991
 Time of Stop Pumping ----- 8:00 PM Sept. 19, 1991
 Water Level beginning of test ----- 29.5 feet below ground surface
 Radius distance of Monitor well from pump well -- 12.41 feet

	TIME		DRAWDOWN		R^2/t (ft ² X 10 ⁴)	
	Minutes	Hours	Feet	Inches		
9/14/91	0 (2:30PM)	0	<u>Start</u>	0	0	
	30	0.5		3.83	46.00	.739
	45	0.75		3.92	47.00	.493
	60	1.0		3.94	47.25	.370
	75	1.25		3.99	47.75	.296
	90	1.50		4.02	48.25	.246
	105	1.75		3.94	47.25	.211
	225	3.75		4.06	48.75	.098
	345	5.75		4.17	50.00	.064
	465	7.75		4.19	50.25	.048
	585	9.75		4.25	51.00	.038
9/15/91	1065	17.75		4.45	53.38	.021
	1545	25.75		4.57	54.88	.014
	2040	34.00		4.70	56.38	.011
9/16/91	2520	42.00		4.81	57.75	.0088
	3225	53.75		4.91	58.88	.0069
9/17/91	3960	66.00		5.03	60.38	.0056
	4680	78.00		5.10	61.25	.0047
9/18/91	5400	90.00		5.21	62.50	.0041
	6120	102.00		5.36	64.38	.0036
9/19/91	6840	114.00		5.42	65.00	.0032
	7545 (8:00PM)	125.75	<u>Finish</u>	5.46	65.50	.0029

PUMP TEST #1
DRAWDOWN & RECOVERY PUMPING WELL

	Drawdown			Recovery			Residual drawdown 5'
	Minutes	Inches	Feet	Minutes	Inches	Feet	
9/14/91	0 (2:30PM) Start	0	0	Pump Off 8:15PM	0	0	9/19/91
	30	143.25	11.93	9/19/91 2.5	173.5	13.46	1.67
	45	144.25	12.01	5.0	164.5	13.71	1.42
	60	145.00	12.08	-7.5	165.25	13.77	1.36
	75	145.5	12.125	10.0	165.5	13.79	1.34
	90	146.0	12.17	15.0	166.00	13.83	1.30
	105	146.5	12.21	20.0	166.50	13.87	1.26
	225	149.00	12.42	25.0	166.50	13.87	1.26
	345	150.25	12.52	35.0	166.75	13.89	1.24
	465	151.00	12.58	45.0	167.00	13.92	1.21
	585	152.00	12.67	60.0	167.75	13.99	1.14
9/15/91	1065	153.75	12.81	90.0	168.375	14.03	1.10
	1545	158.00	13.17	150.0	168.625	14.05	1.08
	2040	161.00	13.42	9/20/91 552.0	170.375	14.20	0.93
9/16/91	2520	163.75	13.65	960.0	171.50	14.29	0.84
	3223	166.5	13.87	1260.0	172.0	14.33	0.80
9/17/91	3960	169.50	14.13	9/21/91 1960.0	173.625	14.47	0.66
	4680	172.00	14.33	2700.0	173.75	14.49	0.54
9/18/91	5400	174.50	14.54	9/22/91 3465.0	174.00	14.50	0.63
	6120	177.00	14.75	4195.0	174.25	14.52	0.61
9/19/91	6840	179.50	14.96	9/23/91 4900.0	174.50	14.54	0.59
	7545	181.50	15.13	5670.0	175.00	14.58	0.55
8:15PM	7560 Stop	181.50	15.13	9/24/91 6320.0	175.25	14.60	0.53
				7095.0	175.375	14.61	0.52
				9/25/91 7770.0	175.375	14.61	0.52





Match Points

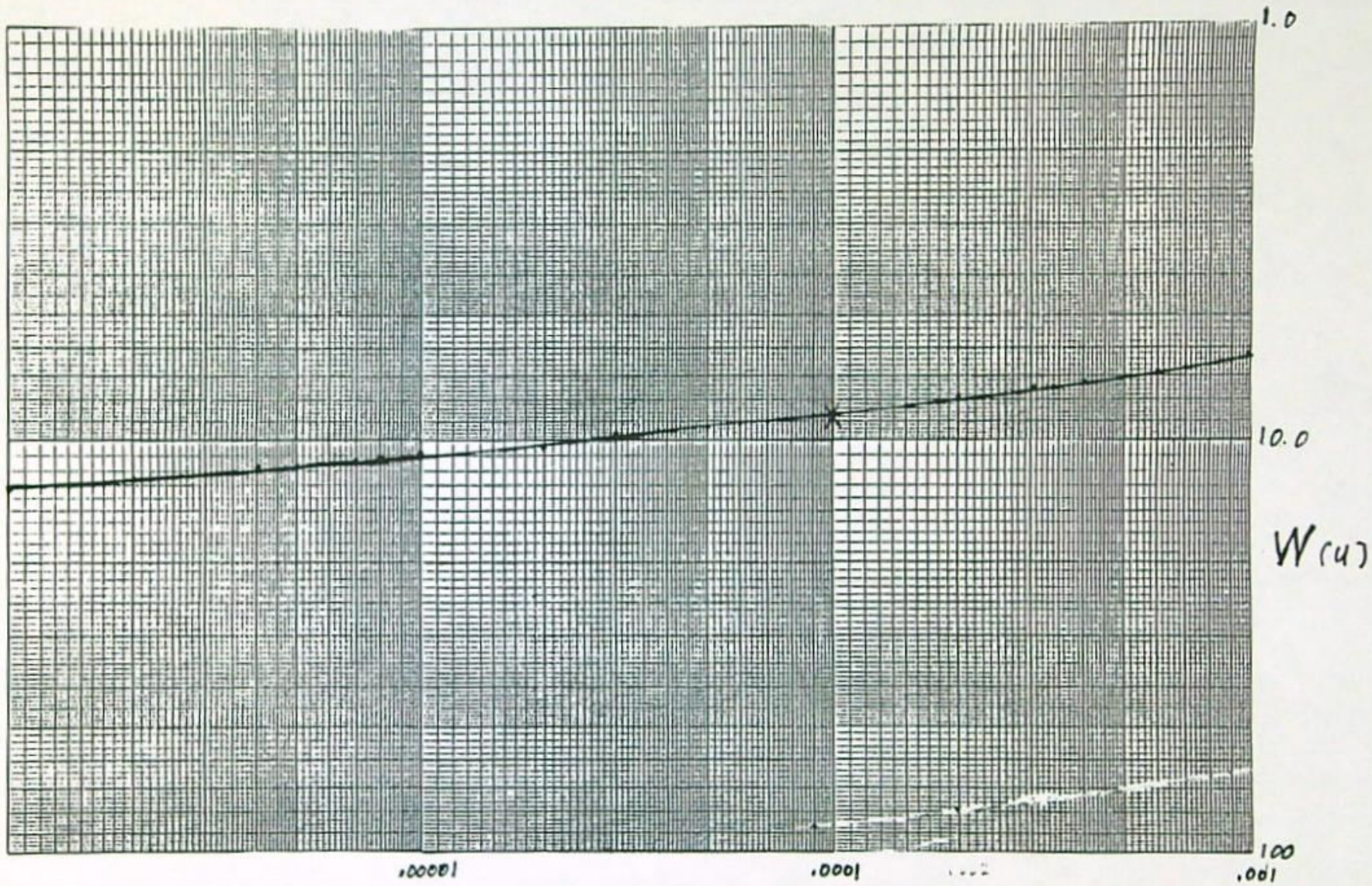
$$r^2/t = 40.0$$

$$z = 64'' = 5.33 \text{ feet}$$

Table 6-3 Values of $W(u)$ for various values of u

u	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0
$\times 1$	0.219	0.049	0.013	0.0038	0.00114	0.00036	0.00012	0.000038	0.000012
$\times 10^{-1}$	1.82	1.22	0.91	0.70	0.56	0.45	0.37	0.31	0.26
$\times 10^{-2}$	4.04	3.35	2.96	2.68	2.48	2.30	2.15	2.03	1.94
$\times 10^{-3}$	6.33	5.64	5.23	4.95	4.73	4.54	4.39	4.26	4.14
$\times 10^{-4}$	8.63	7.94	7.53	7.25	7.02	6.84	6.69	6.55	6.44
$\times 10^{-5}$	10.95	10.24	9.84	9.55	9.33	9.14	8.99	8.86	8.74
$\times 10^{-6}$	13.24	12.55	12.14	11.85	11.63	11.45	11.29	11.16	11.04
$\times 10^{-7}$	15.54	14.85	14.44	14.15	13.93	13.75	13.60	13.46	13.34
$\times 10^{-8}$	17.84	17.15	16.74	16.46	16.23	16.05	15.90	15.76	15.65
$\times 10^{-9}$	20.15	19.45	19.05	18.76	18.54	18.35	18.20	18.07	17.95
$\times 10^{-10}$	22.45	21.76	21.35	21.06	20.84	20.66	20.50	20.37	20.25
$\times 10^{-11}$	24.75	24.06	23.65	23.36	23.14	22.95	22.81	22.67	22.55
$\times 10^{-12}$	27.05	26.36	25.95	25.66	25.44	25.26	25.11	24.97	24.86
$\times 10^{-13}$	29.36	28.66	28.26	27.97	27.75	27.56	27.41	27.28	27.16
$\times 10^{-14}$	31.66	30.97	30.56	30.27	30.05	29.87	29.71	29.58	29.46
$\times 10^{-15}$	33.96	33.27	32.86	32.58	32.35	32.17	32.02	31.88	31.76

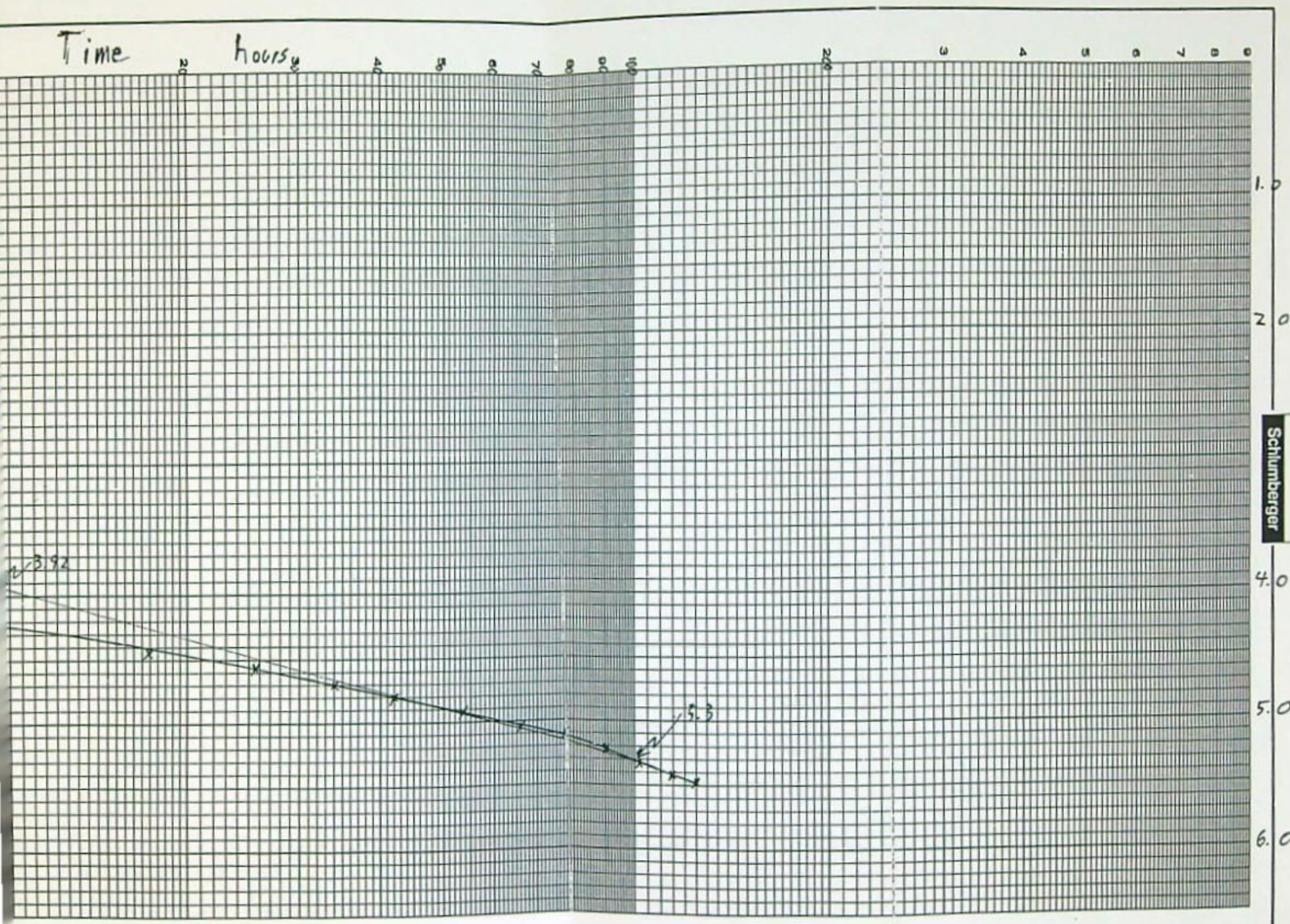
Source: Adapted from [21].



u

Match Points
 $u = .0001$
 $W(u) = 8.7$

Time hours



Schlumberger

Drawdown

M k Sw T_{cor} R_{int} R_{cor} R_{xo} CP Por SP Gen

Fraser Deed Description
Tax lot 100 S. 13 T. 30 S R. 15 W

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89 06 0320 - 3 1991

MEMORANDUM OF CONTRACT

WATER RESOURCES DEPT
BALEM, OREGON

SELLER : Donald E. Brooks

BUYERS : Russell S. Fraser and Patti R. Fraser, husband and wife

ADDRESS OF BUYERS : Route 1, Box 1519
Bandon, OR 97411

DATE OF CONTRACT: JUNE 7, 1989

DESCRIPTION OF PROPERTY: Refer to EXHIBIT A attached hereto and hereby by reference incorporated herein and made a part hereof.

The above named Seller did, by contract bearing date set forth above, enter into an agreement to sell to the above named Buyers the above described property.

This memorandum does not contain the entire agreement, but is made solely for the purpose of recording the existence of said agreement. The true and actual consideration for the property was \$100,000.00.

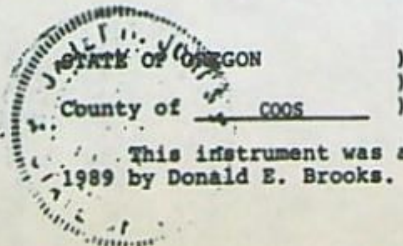
The final installment payment on this contract, unless sooner paid, will be due and payable on April 1, 2004.

THIS INSTRUMENT WILL NOT ALLOW USE OF THE PROPERTY DESCRIBED IN THIS INSTRUMENT IN VIOLATION OF APPLICABLE LAND USE LAWS AND REGULATIONS. BEFORE SIGNING OR ACCEPTING THIS INSTRUMENT, THE PERSON ACQUIRING FEE TITLE TO THE PROPERTY SHOULD CHECK WITH THE APPROPRIATE CITY OR COUNTY PLANNING DEPARTMENT TO VERIFY APPROVED USES.

Until a change is requested, all tax statements shall be sent to the Buyers at the address set forth above.

Dated this 7th day of JUNE, 1989.

Donald E. Brooks Seller



)
) ss.

This instrument was acknowledged before me on June 7, 1989 by Donald E. Brooks.

[Signature]
Notary Public for Oregon
My Commission Expires 10-16-1990

MEMORANDUM OF CONTRACT

Application No. 6-12685
Permit No.

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To Whom it May Concern:

OCT - 3 1991

We are aware that Harry G. Spencer is filing for water rights on 2 acres of future cranberry bogs on property in Tax Lot 100 of Sec. 13 T. 30S, R. 15W, W.M. in Coos County, Oregon, and we have no objections to that filing.

WATER RESOURCES DEPT.
SALEM, OREGON

Signed

Russell Fraser
Lathin Fraser

Date

9/27/91
9-27-91

Application No. G-12685
Permit No. _____
RIGHT OF WAY EASEMENT

Roberts-Raymond

State Copy

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OCT - 3 1991

KNOW ALL MEN BY THESE PRESENTS, that we the undersigned, for a good and valuable consideration, receipt thereof acknowledged, do hereby grant unto Growth Unlimited Nursery, Inc., an Oregon Corporation whose Post Office address is p.o. Box 291, Langlois, Oregon, 97450, and to its successors or assigns, the right to enter upon the land of the undersigned, situated in the County of Coos, State of Oregon, described as follows:

portions of Tax lots 1501 and 1500 in the N $\frac{1}{2}$ of the NW $\frac{1}{4}$ of Section 12 T. 30S R. 15W, W.M., as illustrated in attached Exhibit "A".

and to construct, reconstruct, operate and maintain on the above described land and/or upon all roads abutting said lands, an underground 4 inch water transmission line.

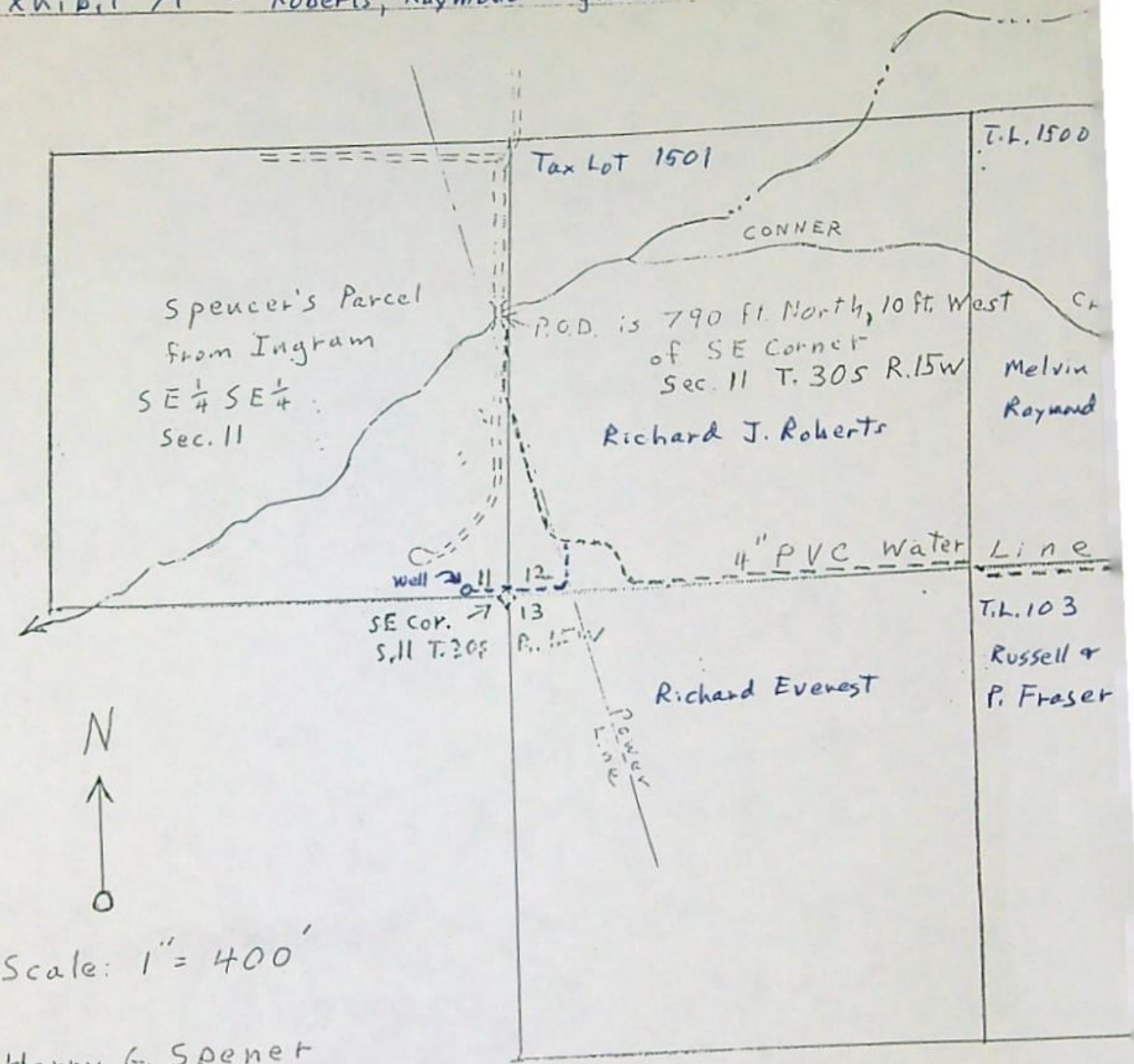
The undersigned covenant that they are the owners of the above described lands, and that said lands are free and clear of all encumbrances and liens whatsoever, except those held by the following persons:

IN WITNESS THEREOF, the undersigned have set their hand and seal this 10th day of September, 1991.

OWNERS SIGNATURE:

Richard J. Roberts 9-10-91
Melvin Raymond

Exhibit "A" - Roberts, Raymond Agreement



Scale: 1" = 400'

Harry G. Spener
Water Right Application
from SE 1/4 SE 1/4 Sec. 11
T. 30S R. 15W

Date: May 17, 1985

Application No. 6-12685
Permit No.

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OCT - 3 1991

APPLICATION FOR A PERMIT TO APPROPRIATE GROUNDWATER
IN THE NAME OF HARRY G. SPENCER

WATER RESOURCES DEPT.
SALEM, OREGON

SUPPLEMENTAL SHEET

NAMES AND ADDRESSES OF OTHER PROPERTY OWNERS INVOLVED

Oregon Highway Division
District Engineer
1155 South 5th Street
Coos Bay, Oregon 97420
(Pipeline crossing, Pacific Coast Highway #101)

Russell Fraser
Route 1 Box 1519
Bandon, Oregon 97411
(Pipeline crossing and place of use)

Richard J. Roberts
310 Railroad Street
Brookings, Oregon 97415

Melvin Raymond
Rt. 1 Box 1515
Bandon, OR 97411

~~N/A
or Richard Everest
P.O. Box 295
Langlois, OR 97450~~

APPLICATION AND PERMIT TO OCCUPY OR
PERFORM OPERATIONS UPON A STATE HIGHWAY

See Oregon Administrative Rule, Chapter 734, Division 55

OSWRD
copy

PERMIT NUMBER

07M36015

GENERAL LOCATION			PURPOSE OF APPLICATION (TO CONSTRUCT/OPERATE/MAINTAIN)		
HIGHWAY NAME AND ROUTE NUMBER OREGON COAST HIGHWAY			<input type="checkbox"/> POLE LINE	TYPE	
HIGHWAY NUMBER 9	COUNTY CURRY		<input type="checkbox"/> BURIED CABLE	TYPE OCT 21 1991	
BETWEEN OR NEAR LANDMARKS LANGLOIS AND BANDON			<input type="checkbox"/> PIPE LINE	TYPE WATER RESOURCES DEPT. SALEM, OREGON	
HWY. REFERENCE MAP NUMBER 2B-9-5	DESIGNATED FREEWAY <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	IN U.S. FOREST <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	<input type="checkbox"/> NON-COMMERCIAL SIGN		
APPLICANT NAME AND ADDRESS Harry Spencer P.O. Box 291 Langlois, OR 97450 Phone: 347-4114			<input checked="" type="checkbox"/> MISCELLANEOUS OPERATIONS AND/OR FACILITIES AS DESCRIBED BELOW.		
BOND REQUIRED <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO		REFERENCE: OAR 734-55-035 (2)	AMOUNT OF BOND \$		
INSURANCE REQUIRED <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO		REFERENCE: OAR 734-55-035 (1)	SPECIFIED COMP. DATE EXISTING		

DETAIL LOCATION OF FACILITY

(For more space use back of application or attach additional sheets)

MILE POINT	MILE TO POINT	ENGINEERS STATION	ENGINEERS TO STATION	SIDE OF HIGHWAY OR ANGLE OF CROSSING	DISTANCE FROM		BURIED CABLE OR PIPE		* OPEN CUT	SPAN LENGTH
					CENTER LINE	R/W LINE	DEPTH	SIZE AND KIND		
284.12	---	502+90	---	90°	30-0-30	0-30-0				

SPECIAL PROVISIONS (For more space use back of application or attach additional sheets)

* 1—OPEN CUTTING OF PAVED OR SURFACED AREAS ALLOWED?

YES [OAR 734-55-040 (10)] NO [OAR 734-55-040 (9)]

2—TRAFFIC CONTROL REQUIRED?

YES [OAR 734-55-025 (6)] NO

3—WITHIN 48 HOURS BEFORE BEGINNING WORK AND AFTER COMPLETING THE PERMIT WORK, THE APPLICANT OR HIS CONTRACTOR SHALL NOTIFY THE DISTRICT REPRESENTATIVE AT TELEPHONE NUMBER (503) 269-9121. A COPY OF THIS PERMIT AND ALL ATTACHMENTS SHALL BE AVAILABLE AT THE WORK AREA. ORS 757.541 REQUIRES EXCAVATORS TO LOCATE AND PROTECT ALL EXISTING UNDERGROUND UTILITIES. AVOID INJURY AND ADDED EXPENSE — CALL BEFORE YOU DIG.

4- Applicant to maintain an existing 4 inch water line through State Highway right-of-way via 6' culvert.

5- This water line has been in existence for 20 plus years.

6- Water line is attached to the top portion of the culvert and is not an obstruction problem.

7- Repairs and regular maintenance by applicant is allowable. In the event the existing line needs replaced or a change in size, all rights through the culvert will be revoked. The applicant will be required to cross the right-of-way by use of a boring or some other suitable method.

IF THE PROPOSED APPLICATION WILL AFFECT THE LOCAL GOVERNMENT, THE APPLICANT SHALL ACQUIRE THE LOCAL GOVERNMENT OFFICIAL'S SIGNATURE BEFORE ACQUIRING THE DISTRICT MAINTENANCE SUPERVISOR'S SIGNATURE.

LOCAL GOVERNMENT OFFICIAL SIGNATURE X	TITLE	DATE
When this application is approved by the Department, the applicant is subject to, accepts and approves the terms and provisions contained and attached; and the terms of Oregon Administrative Rule, Chapter 734, Division 55, which is by this reference made a part of this permit.	DISTRICT MAINTENANCE SUPERVISOR OR REPRESENTATIVE X <i>[Signature]</i>	DATE COMPLETE APPLICATION RECEIVED 10-15-91
APPLICANT <i>d ba Growth Unlimited Nursery, Inc</i>	APPLICATION DATE 10/10/91	DATE
X <i>Harry D. Spencer</i>	REGIONAL ENGINEER OR REPRESENTATIVE X <i>[Signature]</i>	
TITLE <i>Owner of waterline & adjacent property</i>	TELEPHONE NUMBER (503) 347-4114	UTILITY PERMIT SUPERVISOR X
		APPROVAL DATE

Application No. 6-12685
Permit No. _____

Fraser

state copy

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RIGHT OF WAY EASEMENT

OCT - 3 1991

KNOW ALL MEN BY THESE PRESENTS, that we the undersigned, for a good and valuable consideration, receipt thereof acknowledged, do hereby grant unto Growth Unlimited Nursery, Inc., an Oregon Corporation whose Post Office address is p.o. Box 291, Langlois, Oregon, 97450, and to its successors or assigns, the right to enter upon the land of the undersigned, situated in the County of Coos, State of Oregon, described as follows:

Portions of Tax Lots 100 and 103 in the NW $\frac{1}{4}$, NE $\frac{1}{4}$ and the NE $\frac{1}{4}$ NW $\frac{1}{4}$ of Sec. 13 Twp, 30S Rge. 15W, W.M. Coos County, Or. as illustrated in attached Map Exhibit "A"

and to construct, reconstruct, operate and maintain on the above described land and/or upon all roads abutting said lands, an underground 4 inch water transmission line.

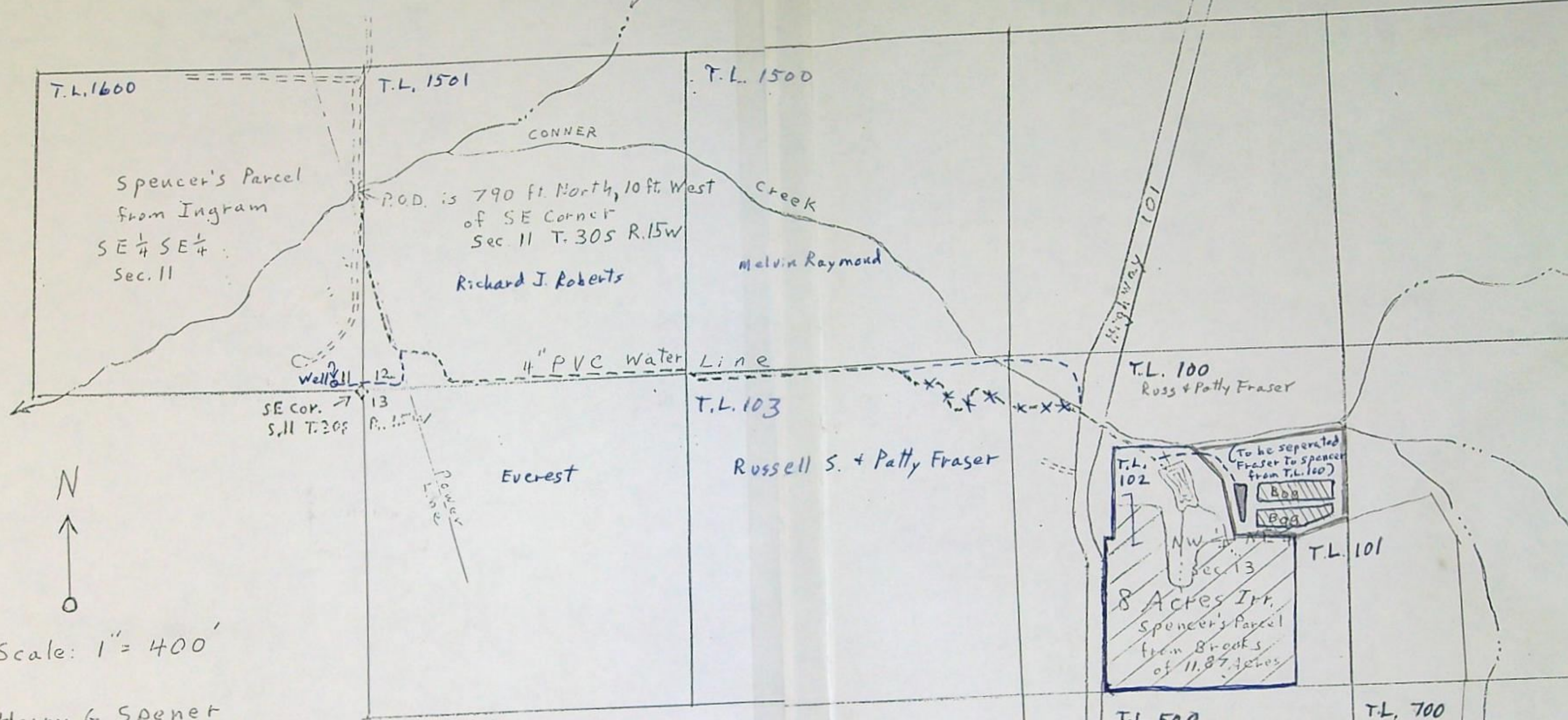
The undersigned covenant that they are the owners of the above described lands, and that said lands are free and clear of all encumbrances and liens whatsoever, except those held by the following persons:

IN WITNESS THEREOF, the undersigned have set their hand and seal this 10 day of SEPT, 1991.

OWNERS' SIGNATURE:

Russell S Fraser
Scott Fraser

Exhibit "A" - Fraser Agreement



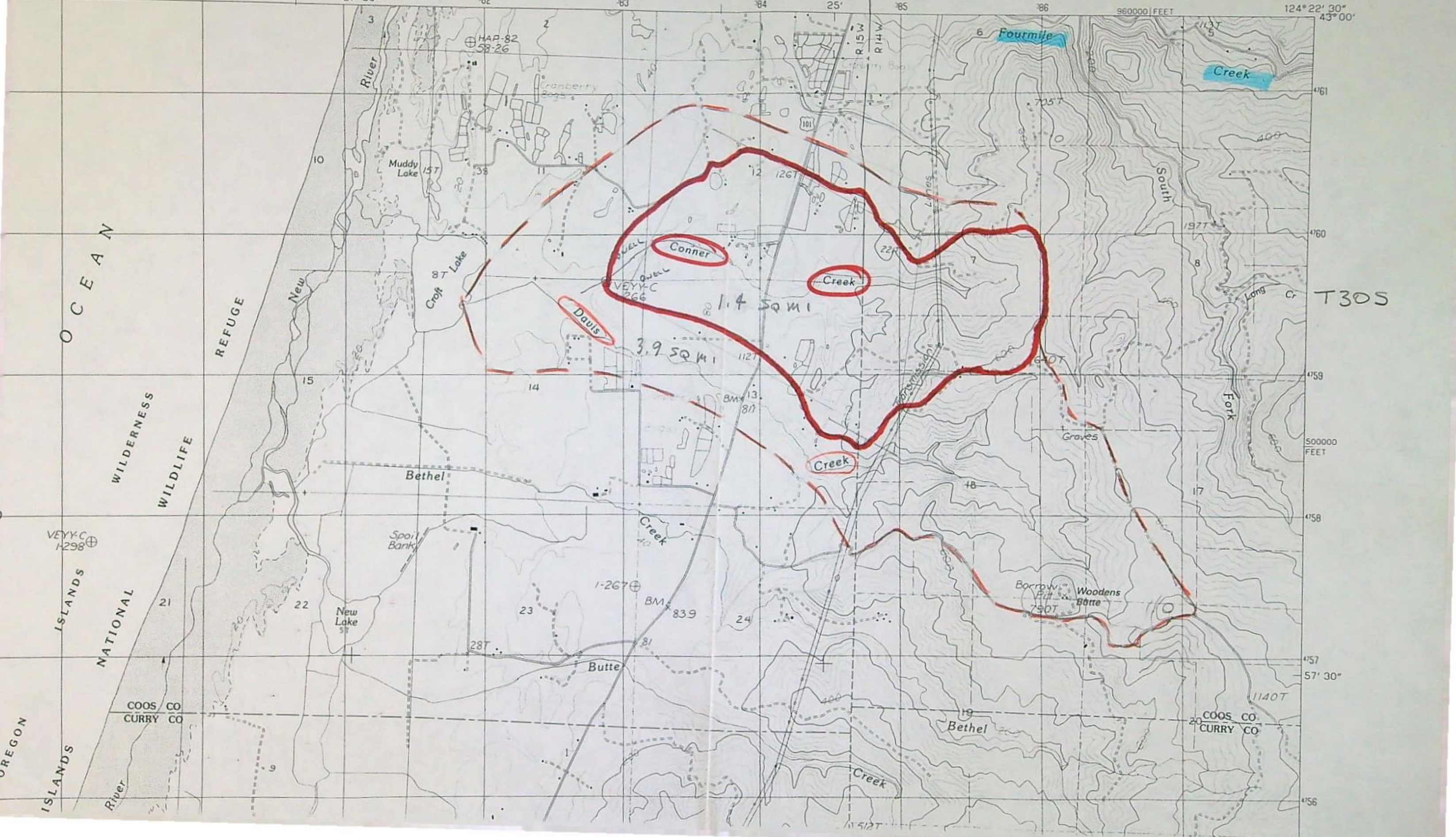
Scale: 1" = 400'

Harry G. Spener
 Water Right Application
 from SE 1/4 SE 1/4 Sec. 11
 T. 30S R. 15W
 Date: May 17, 1985

Map Key
 - - - - = Existing 4" PVC Water Line of Growth Unlimited
 x-x-x-x = discarded section of Growth Unlimited 4" PVC Water Line.

R15W 14W WM

79 80 27' 30" 82 83 84 25' 85 86 960000 FEET 124° 22' 30" 43° 00'



T30S

OCEAN

REFUGE

WILDERNESS
WILDLIFE

ISLANDS
NATIONAL

OREGON

COOS CO
CURRY CO

COOS CO
CURRY CO

APPLICATION MAP

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IN THE NAME OF HARRY G SPENCER

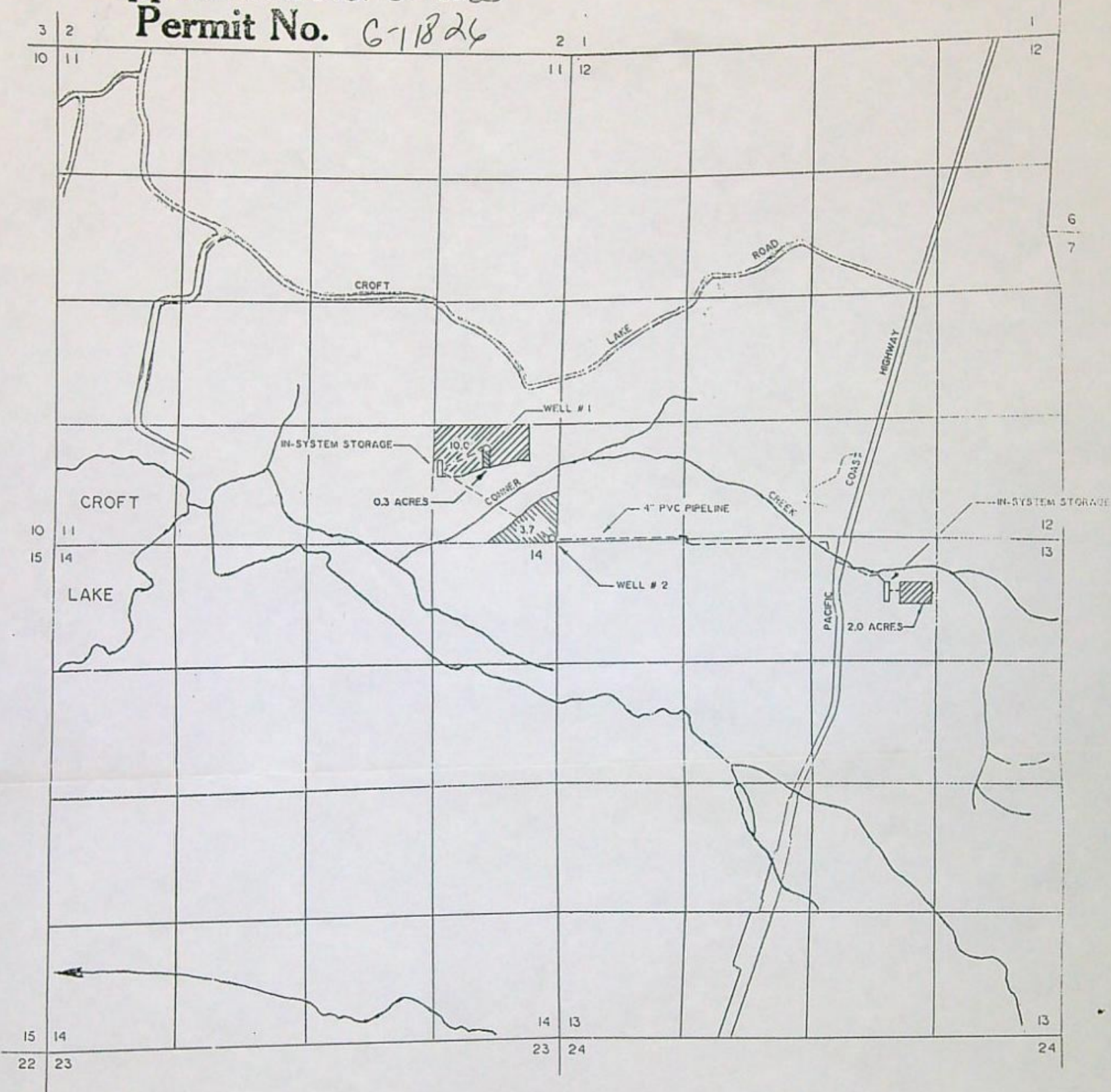
OCT - 3 1987



WATER RESOURCES DEPT.
STATE OF OREGON

SECTIONS 11, 12, AND 13, T30S, R15W, W.M.

Application No. G-12685

Permit No. G-11826



-  CRANBERRY USE
-  NURSERY OPERATIONS

WELL # 1 IS LOCATED 1030 FEET NORTH AND 750 FEET WEST FROM THE SOUTHEAST CORNER OF SECTION 11.

WELL # 2 IS LOCATED 5 FEET NORTH AND 20 FEET WEST FROM THE SOUTHEAST CORNER OF SECTION 11, BOTH WELLS BEING WITHIN THE SOUTHEAST 1/4 OF THE SOUTHEAST 1/4 OF SECTION 11, TOWNSHIP 30 SOUTH, RANGE 15 WEST, W.M., COOS COUNTY.

THE PURPOSE OF THIS MAP IS TO IDENTIFY THE LOCATION OF THE WATER RIGHT. IT IS NOT INTENDED TO PROVIDE INFORMATION RELATIVE TO THE LOCATION OF PROPERTY OWNERSHIP BOUNDARY LINES.

Certified Water Right Examiner
#054 WRE
James F. Goeson
James F. Goeson
Nov. 19, 1987
STATE OF OREGON



KNOW ALL MEN BY THESE PRESENTS, That Floyd Ingram and Billie Ingram, Husband and Wife, and Kenneth Ingram and Beverly Ingram, Husband and Wife, hereinafter called the grantor, for the consideration hereinafter stated, to grantor paid by Harry G. Spencer and Patricia M. Spencer, Husband and Wife, hereinafter called the grantee, does hereby grant, bargain, sell and convey unto the said grantee and grantee's heirs, successors and assigns, that certain real property, with the tenements, hereditaments and appurtenances thereunto belonging or appertaining, situated in the County of Coos and State of Oregon, described as follows, to-wit:
 The SE 1/4 of the SE 1/4 of Section 11, Township 30 South, Range 15 West of the Willamette Meridian, Coos County, Oregon.

Tenant in common an undivided 4/5 interest to Harry S. Spencer and an undivided 1/5 interest to Patricia M. Spencer

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OCT - 3 1991

WATER RESOURCES DEPT.
SALEM, OREGON

Application No. 6-12685
 Permit No.

(IF SPACE INSUFFICIENT, CONTINUE DESCRIPTION ON REVERSE SIDE)

To Have and to Hold the same unto the said grantee and grantee's heirs, successors and assigns forever. And said grantor hereby covenants to and with said grantee and grantee's heirs, successors and assigns, that grantor is lawfully seized in fee simple of the above granted premises, free from all encumbrances

and that grantor will warrant and forever defend the said premises and every part and parcel thereof against the lawful claims and demands of all persons whomsoever, except those claiming under the above described encumbrances.

The true and actual consideration paid for this transfer, stated in terms of dollars, is \$ 40,000.00

However, the actual consideration consists of or includes other property or value given or promised which is the whole part of the consideration (indicate which). (The sentence between the symbols @, if not applicable, should be deleted. See ORS 93.030.)

In construing this deed and where the context so requires, the singular includes the plural and all grammatical changes shall be implied to make the provisions hereof apply equally to corporations and to individuals.

In Witness Whereof, the grantor has executed this instrument this _____ day of _____, 19____; if a corporate grantor, it has caused its name to be signed and seal affixed by its officers, duly authorized thereto by order of its board of directors.

THIS INSTRUMENT WILL NOT ALLOW USE OF THE PROPERTY DESCRIBED IN THIS INSTRUMENT IN VIOLATION OF APPLICABLE LAND USE LAWS AND REGULATIONS. BEFORE SIGNING OR ACCEPTING THIS INSTRUMENT, THE PERSON ACQUIRING FEE TITLE TO THE PROPERTY SHOULD CHECK WITH THE APPROPRIATE CITY OR COUNTY PLANNING DEPARTMENT TO VERIFY APPROVED USES.

Floyd Ingram
Billie Ingram
Kenneth Ingram
Beverly Ingram

STATE OF OREGON, }
 County of Coos } ss.
August 19, 1983

STATE OF OREGON, County of _____) ss.
 _____, 19_____

Personally appeared the above named Floyd Ingram, Billie Ingram, Kenneth Ingram and Beverly Ingram

Personally appeared _____ and _____ who, being duly sworn, each for himself and not one for the other, did say that the former is the _____ president and that the latter is the _____ secretary of _____

and acknowledged the foregoing instrument to be their voluntary act and deed.

_____ a corporation, and that the seal affixed to the foregoing instrument is the corporate seal of said corporation and that said instrument was signed and sealed in behalf of said corporation by authority of its board of directors; and each of them acknowledged said instrument to be its voluntary act and deed.

Before me: [Signature]
 (OFFICIAL SEAL)
 Notary Public for Oregon
 My commission expires: 6-22-89

Before me: _____
 (OFFICIAL SEAL)
 Notary Public for Oregon
 My commission expires: _____
 (If executed by a corporation, affix corporate seal)

Floyd and Billie Ingram, and Kenneth and Beverly Ingram
Highway 42, Norway, Oregon 97460
 GRANTOR'S NAME AND ADDRESS

STATE OF OREGON, }
 County of _____ } ss.
 I certify that the within instru-

OK

WARRANTY DEED



KNOW ALL MEN BY THESE PRESENTS, That Floyd Ingram and Billie Ingram, Husband and Wife, and Kenneth Ingram and Beverly Ingram, Husband and Wife, hereinafter called the grantor, for the consideration hereinafter stated, to grantor paid by Harry G. Spencer and Patricia M. Spencer, Husband and Wife, hereinafter called the grantee, does hereby grant, bargain, sell and convey unto the said grantee and grantee's heirs, successors and assigns, that certain real property, with the tenements, hereditaments and appurtenances thereunto belonging or appertaining, situated in the County of COOS and State of Oregon, described as follows, to-wit: The SE 1/4 of the SE 1/4 of Section 11, Township 30 South, Range 15 West of the Willamette Meridian, Coos County, Oregon.

Tenant in common an undivided 4/5 interest to Harry S. Spencer and an undivided 1/5 interest to Patricia M. Spencer

RECEIVED

OCT - 3 1991

WATER RESOURCES DEPT. SALEM, OREGON

Application No. 6-12685
Permit No.

(IF SPACE INSUFFICIENT, CONTINUE DESCRIPTION ON REVERSE SIDE)

To Have and to Hold the same unto the said grantee and grantee's heirs, successors and assigns forever. And said grantor hereby covenants to and with said grantee and grantee's heirs, successors and assigns, that grantor is lawfully seized in fee simple of the above granted premises, free from all encumbrances

and that grantor will warrant and forever defend the said premises and every part and parcel thereof against the lawful claims and demands of all persons whomsoever, except those claiming under the above described encumbrances.

The true and actual consideration paid for this transfer, stated in terms of dollars, is \$ 40,000.00

Ⓞ However, the actual consideration consists of or includes other property or value given or promised which is the whole part of the consideration (indicate which). Ⓞ (The sentence between the symbols Ⓞ, if not applicable, should be deleted. See ORS 93.030.)

In construing this deed and where the context so requires, the singular includes the plural and all grammatical changes shall be implied to make the provisions hereof apply equally to corporations and to individuals.

In Witness Whereof, the grantor has executed this instrument this _____ day of _____, 19____; if a corporate grantor, it has caused its name to be signed and seal affixed by its officers, duly authorized thereto by order of its board of directors.

THIS INSTRUMENT WILL NOT ALLOW USE OF THE PROPERTY DESCRIBED IN THIS INSTRUMENT IN VIOLATION OF APPLICABLE LAND USE LAWS AND REGULATIONS. BEFORE SIGNING OR ACCEPTING THIS INSTRUMENT, THE PERSON ACQUIRING FEE TITLE TO THE PROPERTY SHOULD CHECK WITH THE APPROPRIATE CITY OR COUNTY PLANNING DEPARTMENT TO VERIFY APPROVED USES.

Floyd Ingram
Billie Ingram
Kenneth Ingram
Beverly Ingram

STATE OF OREGON, }
County of Coos } ss.
August 19 _____, 19 88

STATE OF OREGON, County of _____) ss.
_____, 19 _____

Personally appeared the above named Floyd Ingram, Billie Ingram, Kenneth Ingram and Beverly Ingram

Personally appeared _____ and _____ who, being duly sworn, each for himself and not one for the other, did say that the former is the _____ president and that the latter is the _____ secretary of _____

and acknowledged the foregoing instrument to be their voluntary act and deed.

_____, a corporation, and that the seal affixed to the foregoing instrument is the corporate seal of said corporation and that said instrument was signed and sealed in behalf of said corporation by authority of its board of directors; and each of them acknowledged said instrument to be its voluntary act and deed.

Before me: [Signature]
(OFFICIAL SEAL)
Notary Public for Oregon
My commission expires: 6-22-89

Before me: _____
(OFFICIAL SEAL)
Notary Public for Oregon
My commission expires: _____
(If executed by a corporation, affix corporate seal)

Floyd and Billie Ingram, and Kenneth and Beverly Ingram
Highway 42, Norway Oregon 97460
GRANTOR'S NAME AND ADDRESS
Harry and Patricia Spencer
P.O. Box 291
Langlois, Or. 97450
GRANTEE'S NAME AND ADDRESS

STATE OF OREGON, }
County of _____ } ss.
I certify that the within instrument was received for record on the _____ day of _____, 19____, at _____ o'clock _____ M., and recorded in book/reel/volume No. _____ on _____

After recording return to:

SPACE RESERVED FOR

STATE OF OREGON
WATER WELL REPORT
 (as required by ORS 537.765)

Well # 2
 SE Cor S. 11

RECEIVED

OCT - 3 (START CARD) # 26375

T305/R15w/11

(1) OWNER: Well Number: 112
 Name: SE Cor S. 11
 Address: _____
 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 58' 1/2"
 Explosives used Type _____ Amount _____

HOLE		SEAL		Amount	
Diameter	From To	Material	From To	sacks	pounds
10"	0' 25'	Epoxy	0' 25'	1300	#

How was seal placed: Method A B C D E
 Other introduced from surface
 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
6"	+15'	36'	.29"	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Liner: _____

Final location of sheets: _____

(7) PERFORATIONS/SCREENS:
 Perforations Method Telescope
 Screens Type Johnson Material Stainless Steel

From	To	Slot size	Number	Diameter	Tele/pipe size	Casing	Liner
43' 7 1/2"	43' 7 1/2"	.016"		6"	Tele	<input type="checkbox"/>	<input type="checkbox"/>
43' 7 1/2"	48' 1 1/2"	.012"		6"	Tele	<input type="checkbox"/>	<input type="checkbox"/>
48' 1 1/2"	54' 1 1/2"	.014"		6"	Tele	<input type="checkbox"/>	<input type="checkbox"/>
54' 1 1/2"	58' 1 1/2"			5"	5" Pipe	<input checked="" type="checkbox"/>	<input type="checkbox"/>

(8) WELL TESTS: Minimum testing time is 1 hour
 Pump Bailer Air Flowing Artesian
 Yield gal/min: 40 Drawdown: 11' for 4 hrs Drill stem at: 55' Time: 1 hr.

Temperature of water 50' 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: SALEM OREGON Latitude: _____ Longitude: _____
 Township: 30S N or S, Range: 15W E or W, WM.
 Section: 11 SE 1/4 SE 1/4
 Tax Lot: 1600 Lot: _____ Block: _____ Subdivision: _____
 Street Address of Well (or nearest address): OFF OF HWY 101 S. - Well #2

(10) STATIC WATER LEVEL:
31' ft. below land surface. Date: 8/30/91
 Artesian pressure _____ lb. per square inch. Date: _____

(11) WATER BEARING ZONES:

Depth at which water was first found: 31'

From	To	Estimated Flow Rate	SWL
31'	54'	40 gpm	1'

(12) WELL LOG: Ground elevation +1200'

Material	From	To	SWL
Sandy Clay Fine n	0	15	
Clay w/ sand Fine n	15	18	
Clay w/ sand Gray	18	27	
Sand Fine n Fine	22	26	
Sand/Clay + Gravel Fine n	26	30	
Sand Gray medium	30	36	
Sand w/ Gravel Fine n Coarse	36	41	
Clay w/ Gravel Gray	41	45	
Claystone Gray hard	45	58	

G-12685

Date started 8/29/91 Completed 9/10/91

(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: John S. Felt WWC Number 65
 Date: 8/29/91

(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: Lee Mack WWC Number 111
 Date: 9/10/91

STATE OF OREGON
WATER WELL REPORT
(as required by ORS 537.785)

Well No. 39
Greenhouse Well

T30S/R15W/11
16053

OCT (START CARD) # 16053

(1) OWNER: HARRY SPENCER Well Number: 39
Name GROWTH UNLIMITED TREE FARM
Address P.O. BOX 291
City LANGLOIS State OR. Zip 97450

(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 57'2"
Explosives used Yes No Type _____ Amount _____

HOLE			SEAL			Amount sacks or pounds
Diameter	From	To	Material	From	To	
10"	0	18	CEMENT	0	18	800#
6"	18	58				

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:

Casing/Liner	Diameter	From	To	Gauge	Steel		Plastic		Welded		Threaded	
					Yes	No	Yes	No	Yes	No	Yes	No
Casing	6"	+1	37'11"	.250	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" 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 TELESCOPE
 Screens Type JOHNSON Material STAINLESS STEEL

From	To	Slot size	Number	Diameter	Tele/pipe size	Casing	Liner
38'10"	44'9"	.015		6"	6"	<input type="checkbox"/>	<input type="checkbox"/>
44'9"	50'4"	.012		6"	6"	<input type="checkbox"/>	<input type="checkbox"/>
50'4"	55'3 1/2"	.010		6"	6"	<input type="checkbox"/>	<input type="checkbox"/>
55'3 1/2"	57'2"			5"	5"	<input checked="" 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
42	6'9"	@ 53'	1 hr.

Temperature of water 52° 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 COOS Latitude _____ Longitude _____
Township 30 S N or S, Range 15 W E or W, WM
Section 11 SE W SE W
Tax Lot 1600 Lot _____ Block _____ Subdivision _____
Street Address of Well (or nearest address) CROFT ROAD - OFF OF 101 SOUTH.

(10) STATIC WATER LEVEL:
25'6" ft. below land surface. Date 3/13/70
Artesian pressure _____ lb. per square inch. Date _____

(11) WATER BEARING ZONES:

Depth at which water was first found 25'

From	To	Estimated Flow Rate	SW
23'	55'	80	25

(12) WELL LOG: Ground elevation ± 300'

Material	From	To	SW
CLAY, BROWN	0	6	
SAND w/ GRAVEL, BROWN	6	18	
GRAVEL w/ SAND, MED., BROWN	18	20	
GRAVEL w/ SAND, MED., GRAY	20	23	
GRAVEL w/ SAND, MED., RED	23	24	35
SAND w/ GRAVEL, FINE, BROWN	24	28	
CLAY w/ SAND, BROWN	28	30	
SAND w/ GRAVEL, FINE, BROWN	30	45	
GRAVEL w/ SAND, MED., BROWN	45	50	
SAND, MED., BROWN	50	55	
CLAY, GRAY	55	58	

Application No. 6-12685
Permit No. _____
Date started 3/12/70 Completed 3/20/70

(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 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 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.
WWC Number 149
Signed Jim Mack Date 3/20/70

612685

AUTOMATIC COVER SHEET

SECURITY BANK

P.O. BOX 89

BANDON, OR 97411

Telephone (503) 347-2401

FAX Number (503) 347-3531

DATE: December 9, 91

TO: Don Miller

FAX #: 1-378-8130

FROM: Harry Spencer

5 PAGES SENT

INCLUDING COVER PAGE

SE 1/4 OF THE SE 1/4 OF SECTION 11, TWP 30S., R.15W., WM

LOCATIONAL SURVEY/STUDY

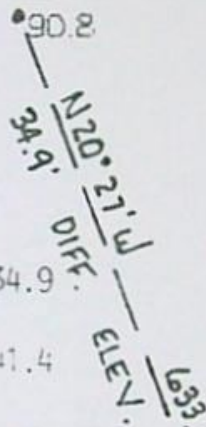
PREPARED FOR: HARRY SPENCER
P.O. BOX 291
LANGLOIS, OR 97450

PREPARED BY: PRAHAR SURVEYING
1045 BALTIMORE #1
BANDON, OR 97411
(503)347-9517

DATE: DEC. 9, 1991

FINDINGS: WELL #1 to creek, HD=633.1
ELEV DIFF=34.9
WELL #2 to reserv. HD=501.0'
ELEV DIFF=41.4

WELL #1

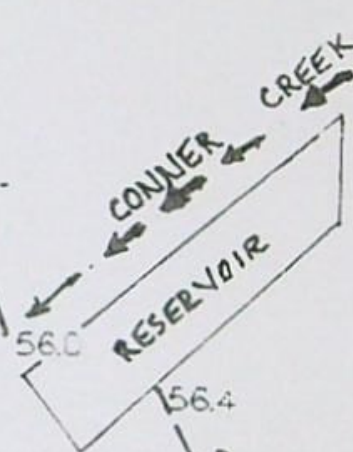


102.1

1320.0

NORTH

9702.1



P.D.D PER APP. # 69884

REGISTERED
PROFESSIONAL
LAND SURVEYOR

[Signature]
OREGON
JULY 10, 1982
JOHN P. PRAHAR
2009

HARRY SPENCER/SE 1/4 SE 1/4

SCALE: 200 ft/in 26.40in/mi

"Complete
Service of
Water Systems"

BANDON WELL & PUMP COMPANY

Licensed
Bonded &
Insured

JIM MACK - Owner

Quality Wells
& Pumps

Route 1, Box 1115
McTimmons Road
Bandon, OR 97411
(503) 347-3178

Water
Filter
Systems

December 5, 1991

To Whom It May Concern:

The flow tests for Mr. Harry Spencer, Growth Unlimited Trees, were performed using the following equipment:

Flow Meter:

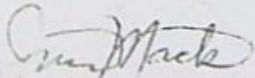
2" Bronze Badger Recordall II, Type M-II, Class II,
Turbo Water Meter (Serial Number: 90059763), with
full port, 2" Bronze Gate Valve, for restricting
water flow.

Depth Meter:

300' ACTAT Well Sounder & 300' Powers 65L.

If you have any questions, please call me.

Sincerely,



✓ Jim Mack

JAM/lcm

Used on Well # 1 by Greenhouse

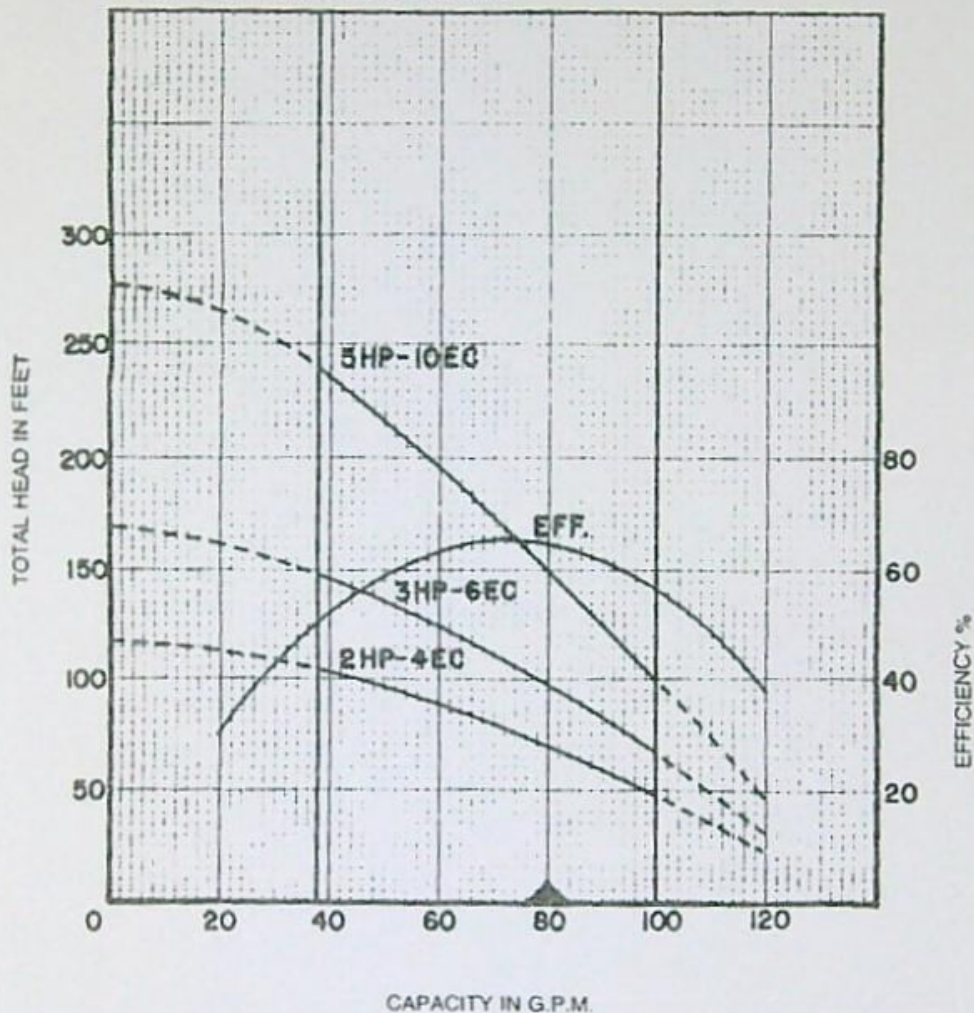
RED JACKET

BIG-FLO®

80 GPM SERIES "EC" PUMPS

5 HP Red Jacket Pump
Model 500 CNI-10EC

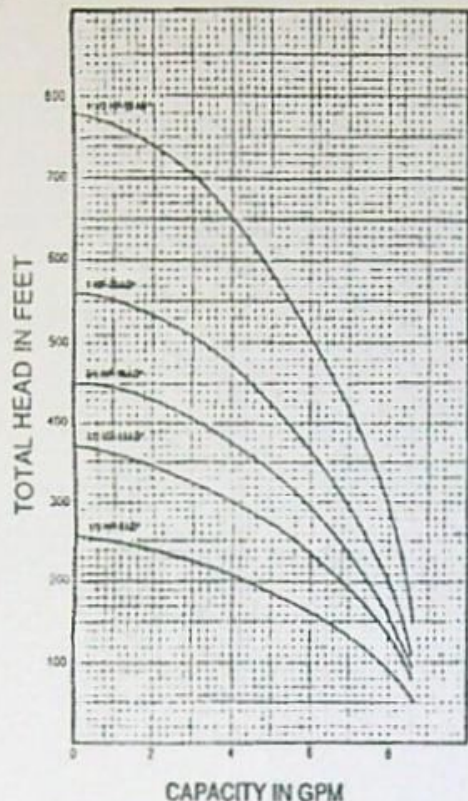
PERFORMANCE CURVES



CAPACITY IN GALLONS PER MINUTE AGAINST DISCHARGE PRESSURES SHOWN

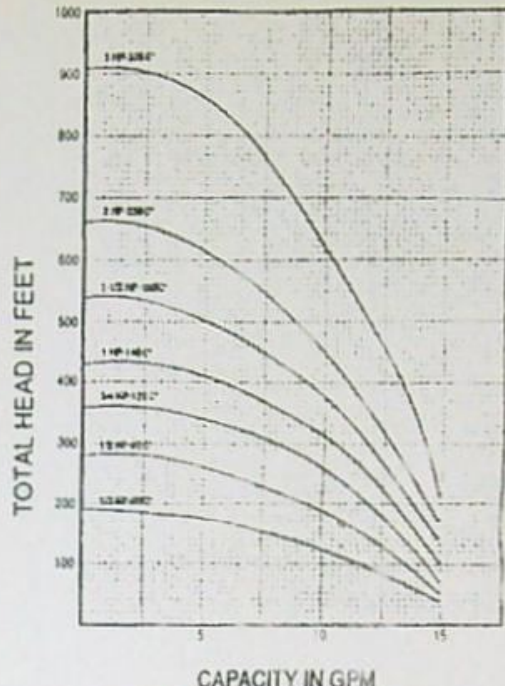
PUMP NO.	0 LBS.			20 LBS.			40 LBS.			60 LBS.		
	4EC	6EC	10EC	4EC	6EC	10EC	4EC	6EC	10EC	4EC	6EC	10EC
	2	3	5	2	3	5	2	3	5	2	3	5
40	105	120		55	65	110		50	90			70
60	85	105		25	75	100		30	85			60
80	60	90	110		60	95			75			50
100	35	75	105		40	85			65			40
140		45	85			70			45			
180			70			50						
220			50			20						
260			25									

**PERFORMANCE CURVES FOR
5 GPM SUBMERSIBLE SERIES "AD"**



±"U" Available in 1/2 thru 1 HP Only.

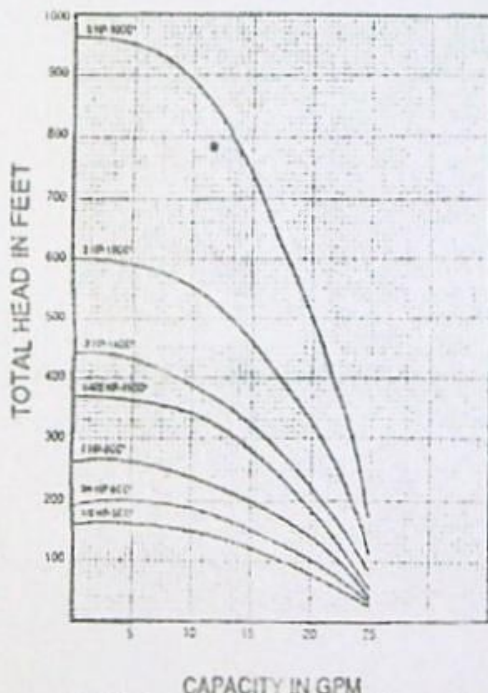
**PERFORMANCE CURVES FOR
10 GPM SUBMERSIBLE SERIES "BC"**



±"U" Available in 1/2 thru 1 HP Only.

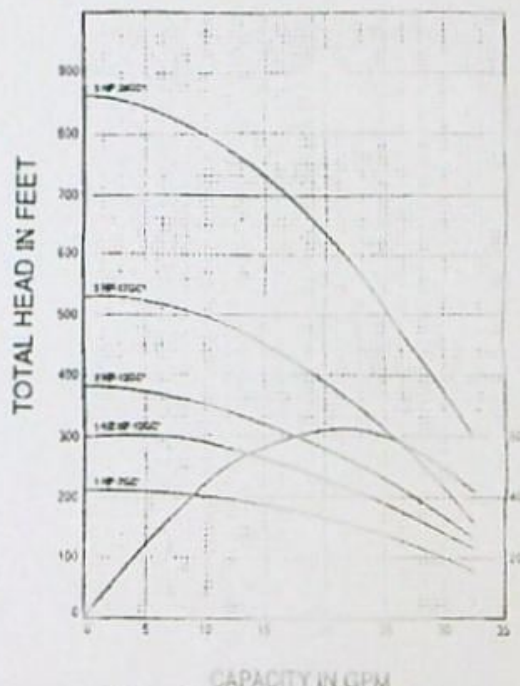
*2 HP Red Jacket Pump
Model 200 CNI-N12GC*

**PERFORMANCE CURVES FOR
18 GPM SUBMERSIBLE SERIES "CC"**



±"U" Available in 1/2 thru 1 HP Only.

**PERFORMANCE CURVES FOR
22 GPM SUBMERSIBLE SERIES "GC"**



±"U" Available in 1 HP Only.

MOST EFFICIENT AREAS

1. Locate your pumping level (the distance from the level of the water in your well to ground level) along the left margin.
2. Decide how much water you need (gallons per minute) and find it along the bottom of the chart.
3. Read across from your pumping level and up from your water needs. Where the lines intersect, you will find the model that best suits you needs.

The N 1/2 of the NE 1/4 and SE 1/4 of the NE 1/4 of Section 13, Township 30 South, Range 15, West of the Willamette Meridian, Coos County, Oregon; lying East of Highway 101.

EXCEPT: A Parcel of land in the NW 1/4 of the NE 1/4 of Section 13, Township 30 South, Range 15 West of the Willamette Meridian, Coos County, Oregon, more particularly described as follows: Beginning at a pipe on the south line of said NW 1/4 of the NE 1/4, on the east E/W edge of State Highway 101, said point being located North 89° 38' 37", East 305.98 feet from the C-4- 1/16-C corner; thence North 89° 38' 37" East, 801.44 feet to a pipe; thence North 08° 23' 31" East, 511.58 feet to a pipe; thence South 88° 19' 36" West, 207.09 feet to a rod; thence North 30° 31' 59" West, 179.31 feet to a rod; thence North 53° 44' 35" West, 260.91 feet to a rod; thence South 87° 20' 55" West, 289.91 feet to the East Right of Way of said Highway 101; thence Southerly along said East Right of Way of Highway 101, 800 feet, more or less, to the point of beginning.

ALSO EXCEPT: A parcel of land located in the NW 1/4 of the NE 1/4 and the NE 1/4 of the NE 1/4 of Section 13, Township 30 South, Range 15 West of the Willamette Meridian, Coos County, Oregon, the following description is a compass and tape survey of a parcel of land in the above subsection, the bearings and distances should be considered approximate only and the iron pipes are the actual corners: Beginning at the NE 1/16th corner of Section 13, Township 30 South, Range 15 West of the Willamette Meridian, Coos County, Oregon; thence North 89° 38' East 273 feet to a 2 inch iron pipe; thence North 78° 30' East 43.0 feet to a 2 inch iron pipe; thence North 73° 30' East 480 feet to a 2 inch iron pipe; thence North 19° 00' West 172 feet to a 2 inch iron pipe; thence South 73° 00' West 424 feet to a 2 inch iron pipe; thence South 14° 30' West 520 feet to a 2 inch iron pipe; thence North 89° 38' East to a 5/8 inch rod which is the NE 1/16 corner to the point of beginning.

ALSO EXCEPT: A parcel of land in the SE 1/4 of the NE 1/4 of Section 13, Township 30 South Range 15, West of the Willamette Meridian, in Coos County, Oregon described as follows: Beginning at the Northwest corner of said SE 1/4 of the NE 1/4 running thence East 273 feet along the North line of said SE 1/4 of the NE 1/4 to a point; thence in a straight line to the Southwest corner of said SE 1/4 of the NE 1/4; thence along the west line of said SE 1/4 of the NE 1/4 to the point of beginning.-----

SUBJECT TO AND EXCEPTING:

1. As disclosed by the tax roll the premises herein described are classified as Forest Lands. In the event of declassification, said premises will be subject to additional taxes and interest pursuant to the provisions of ORS Chapter 321.
2. Rights of the public in streets, roads and highways.

FAX TRANSMISSION COVER SHEET
COOS COUNTY ANNEX

DATE: 12-10-91 TIME: 0856

TO: Donn Miller
Name
OWRD
Organization
378-8130
FAX Number

FROM: J. P. Drolet
Name
Watermaster
Department

Coos County Annex 503-396-2690
Coquille, Ore. 97423 FAX Number

Number of pages 2 (including this cover sheet)

Description of Transmittal: Attached Harry Spencer asked that I FAX the

Please call (503) 396-3121 ext. 254 if transmittal is incomplete or unreadable.

MISCELLANEOUS MEASUREMENTS

P. 02

	Stream	Location	1/4	G.H.	W	A	Q	A.T.	W.T.	Remarks
05-27-89	South Outlet of Craft Lake Trib. to New River	75' south of New River	NE 1/4 Sec 14 T30S R15W	—	2.25	0.89	0.37	—	—	Taken after rain storm
08-23-89	South Outlet of Craft Lake Trib to New River	" "	NE 1/4 SW 1/4 NE 1/4 Sec 14 T30S R15W	—	1.00	0.18	0.04	59°	70°	Intermittent Rain for 2 days
05-25-89	N. Outlet of Craft Lake Trib. to New River	20' below the dam	NE 1/4 Sec 14 T30S R15W	—	7.50	3.91	5.72	—	—	Taken after heavy RAIN STORM
05-27-89	N. Outlet of Craft Lake Trib to New River	" " "	NE 1/4 SW 1/4 SE 1/4 Sec 14 T30S R15W	—	7.50	4.13	5.50	—	—	
07-17-89	" " "	" " "	" " "	—	7.00	3.47	1.63	65°	66°	
08-23-89	" " "	" " "	" " "	—	6.50	2.41	1.57	59°	69°	Had 2 days inter- mittent RAIN
09-29-89	" " "	" " "	" " "	—	6.00	1.72	0.36	61°	65°	
05-25-89	Conner Cr. Trib. to Davis Cr.	110' above its confluence w/ Davis Cr.	NE 1/4 Sec 14 T30S R15W	—	2.00	1.37	3.00	—	—	Taken after heavy RAIN STORM
07-17-89	" " "	" " "	NW 1/4 NW 1/4 NE 1/4 Sec 14 T30S R15W	—	2.25	1.65	0.71	71°	64°	
08-23-89	" " "	" " "	" " "	—	3.00	2.34	0.66	64°	62°	Had 2 days of rain with this storm
09-29-89	" " "	" " "	" " "	—	3.00	2.41	0.49	61°	63°	
05-25-89	Davis Cr. Trib. to Craft Lake	Above the confluence of Conner Cr.	NW 1/4 Sec 14 NE 1/4 Sec 14 T30S R15W	—	7.00	1.78	1.70	—	—	Taken after heavy rain storm
07-17-89	DAVIS Cr	" " "	NW 1/4 NW 1/4 NE 1/4 Sec 14 T30S R15W	—	7.00	1.66	0.76	71°	62°	
08-23-89	" " "	" " "	" " "	—	7.00	1.24	0.73	64°	62°	Had 2 days of intermittent rain
09-29-89	" " "	" " "	" " "	—	5.50	1.03	0.30	61°	63°	
05-27-89	Unnamed stream, trib to Craft Lake	100' above its confluence w/ Craft Lake	NE 1/4 Sec 14 T30S R15W	—	1.50	0.50	0.28	—	—	Taken after heavy rain storm
07-17-89	UN'ID Stream, trib to " "	" " "	NE 1/4 SE 1/4 SE 1/4 Sec 10 T30S R15W	—	1.55	0.32	0.09	65°	61°	
08-23-89	" " "	" " "	" " "	—	1.25	0.04	0.06	59°	61°	
07-17-89	Conner Cr. Trib. to Davis Cr.	4' below Spooner River outlet	NW 1/4 Sec 14 SE 1/4 Sec 14 T30S R15W	—	3.75	4.40	1.00	60°	64°	Measure taken here above normal measuring station Conner Cr.

DEC-10-91 TUE 8:58

Summary of quantities for the CROFT L (tributary of NEW R) and its tributaries.

5/ 6/1982

- / Non-Canceled rights only
- / Supplemental diversions only
- / Groundwater rights included
- / Surface water rights included
- / Reservoir rights not included

Application Permit	GLC/LOT	Location	Use	Priority	Source	Quantity	Status	
CONNER CR + DAVIS CR								
S 71842	0	SENE 12 205 15W	CR	9/16/1981	RESERVOIR	6.200 AFT ----- 9.200 AFT	✓	
UNW STR + CONNER CR								
S 71276	0	SENE 12 205 15W	CR	10/31/1981	UNW STR	0.350 CFS ----- 0.350 CFS	✓	
Totals								

Total CFS:		0.35						
Total AFT:		9.20						

92
91
90
89
88
87
86
85
84
83
82
81
80

5/ 5/1992

Summary of quantities for the CROFT L (tributary of NEW R) and its tributaries.

- / Non-Canceled rights only
- / Primary diversions only
- / Groundwater rights included
- / Surface water rights included
- / Reservoir rights not included

Application Permit OLC/LDT Location Use Priority Source Quantity Status

SPENCER

CROFT L > NEW R

0	12895	0	SESE 11	305	15W	CR	10/ 3/1991	WELL 1	0.178 CFS	V
0	12895	0	SESE 11	305	15W	CR	10/ 3/1991	WELL 2	0.178 CFS	V

									0.356 CFS	

DAVIS CR > CROFT L

0	11046	0	SENE 14	305	15W	TC	10/12/1991	UNW STR/SPENCE	1.350 CFS	V
0	12893	0	SAWE 14	305	15W	CR	10/15/1991	SUMP 1	0.300 CFS	V
0	12893	0	SEW 14	305	15W	CR	10/15/1991	SUMP 2	0.370 CFS	V
0	12893	0	SEW 14	305	15W	CR	10/15/1991	SUMP 3	0.460 CFS	V
0	12705	0	SAWE 14	305	15W	CR	11/12/1991	SUMP 1	0.400 CFS	V
0	12705	0	SAWE 14	305	15W	CR	11/12/1991	SUMP 2	0.100 CFS	V
0	12705	0	SEWE 14	305	15W	CR	11/12/1991	X WELL	0.100 CFS	V

									3.350 CFS	

CONNER CR > DAVIS CR

0	12341	0	SENE 14	305	15W	TC	10/13/1991	SPENCER SUMP	0.300 CFS	V
0	12855	0	DAWE 12	305	15E	CR	9/16/1991	SUMP	0.780 CFS	V
0	12692	0	SAW 12	305	15W	CR	10/14/1991	WELL 1	1.407 CFS	V
0	12158	0	SAWE 12	305	15W	CR	1/28/1992	UNW STR	0.900 CFS	V
0	12158	0	SESW 12	305	15W	CR	1/28/1992	UNW STR	0.900 CFS	V
0	12805	0	SENE 13	305	15W	CR	3/ 5/1992	SUMP 1	0.440 CFS	V

									4.517 CFS	

NEED
SUPPLEMENTAL
NO SENIOR DATES TO
G-12685

1.35

0.03
0.78

2.16 CFS

0 12701 0 WENE 13 320 154 OR 10/21/1991 SUMP WELL 0.350 CFS Y

0.350 CFS

Totals

Total CFS: 0.57

Total AFT: 0.00

SEP 1994

BEFORE THE WATER RESOURCES COMMISSION
OF THE STATE OF OREGON

In the Matter Of)
Groundwater Permit)
G-11826, Application)
G12685)

PETITION FOR RECONSIDERATION

Pursuant to OAR 690-01-005, 137-04-080 and ORS 183.484(2), 536.075, WaterWatch files this petition for reconsideration of the water right permit G-11826 issued by the Director October 5, 1994. Given the omission of pertinent supporting data, conflicting Department analysis, misinterpretation of one of the governing rules, utilization of the wrong standard of review, prejudice to other applicants, endangered species concerns, and basic public interest concerns, WaterWatch requests that the Commission reconsider and rescind the permit, group it with the other pending applications for the New River Basin, and wait to process it, along with the others, until adequate data on the surface water and ground water resource is collected and analyzed.

The Permit

On October 5, 1994 the Oregon Water Resources Department (hereinafter the Department) issued water right G-11826 to Harry G. Spencer for cranberry and nursery operations. The Water Resources Commission (hereinafter Commission) had found, on September 9, 1994, that the proposed use of water would not impair or be detrimental to the public interest.

The groundwater appropriation granted by this permit lies within the Croft Lake area of the New River Basin. This basin is a unique and fragile ecosystem that is home to a number of rare plant and animal species, many of them listed or petitioned for listing under state and federal Endangered Species Acts. Stocks of coho and fall chinook are currently listed by ODFW as state sensitive, and coho are currently being considered for listing under the federal ESA.

This fragile ecosystem is coming under increasing pressure from development interests, especially the cranberry industry. There are currently over 70 applications (groundwater, surface, and reservoir) pending within this basin, with a majority of those being within the Croft Lake area. Most of these applications will impact already low flows in the basin. Staff itself has acknowledged that "[m]ost of these applications request appropriation of surface water, or groundwater found to have the potential for interference with surface water flows." See staff report for Agenda Item H.2, September 9, 1994. While federal and state agencies recognize that

the resource is overappropriated, they do not have adequate data to quantify their observations (i.e. dry streambeds). Without such data, water availability cannot be adequately determined.

Testimony of Dan Carpenter, BLM, and Stephanie Birchfield, ODFW, WRC Meeting October 28, 1994.

Amidst this uncertainty surrounding the capacity of the resource to support new uses, the Commission, at its September 9, 1994 meeting, approved this application for groundwater withdrawal. They determined that issuance would not be detrimental to the public interest because there was no potential for substantial interference.

The Commission erred in its determination for six reasons. First, the Commission's determination was based, in large part, on the staff report laid before it. This staff report was devoid of some pertinent information from the files which might have led the Commission to make a determination other than they did, including some contradictory staff determinations regarding the potential for substantial interference. Second, the governing Division 9 rules were not properly applied. Third, the Commission applied the wrong standard of review. Rather than analyze the proposed use to see if it would harm public welfare, health and safety, the Commission looked to see if it would harm existing rights. Existing rights are not at issue here. Fourth, this permit was granted out of order and thus unfairly prejudiced other applicants. Fifth, there was no discussion about the effect the potential listing of coho would have on this use. And sixth, the permit as approved did not contain adequate conditions to protect the public interest in the resource.

1. Omission of pertinent supporting data

The Oregon Administrative Rules mandate that in determining whether the proposed water use may impair or be detrimental to the public interest, the Commission shall consider the facts set forth in the application and supporting data. OAR 690-11-185(4)(a).

With regards to this application, the Department provided the Commission a staff report which included the Department's most recent groundwater/hydrology report that determined that there was no potential for substantial interference. However, the staff report did not include an earlier groundwater/hydrology report and supporting memoranda that found just the opposite. potential for substantial interference existed. Nor did it include any information that explained the Department's change in position regarding the potential for substantial interference.

As noted above, the Division 11 rules require that the Commission review supporting data. These past reports are arguably pertinent to the Commission's undertaking of a public interest review because they show that there is, at the very least uncertainty surrounding the potential for substantial interference. Arguably, it could be determined that there is the potential for substantial interference based upon the Department's analysis as a whole.

WaterWatch has attached the pertinent reports and memos that the Commission should have been provided with before the Commission so that they could have adequately whether the potential for substantial interference existed. As we explained in our protest, there are two different staff determinations in the application file which are apparently based on the same data. The first determination concluded there was potential for substantial interference. See Memo to File G-12685 from Sarah Meyer, 12/5/91. The subsequent determination back tracked slightly, although not completely, and "tentatively" concluded that the proposed use "may have low potential for substantial interference." Memo to File from Mike Zwart, 10/6/92. Staff acknowledged that this conclusion was "a tentative conclusion, and strong permit conditions were suggested." Memo to Carol Spence from Mike Zwart, 1/16/93. However, the permit conditions do nothing to eliminate interference or protect the public uses of the surface water resource. In addition, Department staff acknowledged the data used to make this tentative determination failed to contain "pre-test water level data," had "minimal water level recovery rate," and required "assumptions to be made regarding test conditions." Memo to File from Mike Zwart, 10/6/92. And finally, in a more recent memo, staff once again stated that "it was tentatively concluded that the wells may have low potential for substantial interference with Conner Creek." Memo to File from Mike Zwart, 8/22/94.

2. Misapplication of the Division 9 Rules

Despite the uncertainty the Department has exhibited regarding the potential for substantial interference, there seems to be no question that the aquifer is both unconfined and hydraulically connected to Conner Creek. See Memo from Mike Zwart to File, 2/16/93.

The Department's Division 9 rules require the Department to determine whether the proposed wells produce water from a confined or unconfined aquifer. OAR 690-09-040(1). The rules also require the Department to determine the distance of the proposed wells to surface water sources and whether the aquifer is hydraulically connected to surface waters. OAR 690-09-040. The rules then allow certain assumptions to be made depending upon the outcome of these determinations and require further analysis of the applications if the proposed uses do not fit within these assumptions. Id.

A review of the application file reveals that the aquifer is both unconfined and hydraulically connected to Conner Creek and that the proposed point of appropriation is within 1/4 mile of Conner Creek. See Memo from Mike Zwart to File, 2/16/93. Thus, under the Division 9 rules these facts mandate an assumption that there is potential for substantial interference. OAR 690-09-040(4)(a).

The rules do provide the applicant leverage to refute these assumptions. The applicant did submit data collected by their own hydrologist that asserted that the amount of withdrawal would not be seen in Conner Creek. See Memo to file from Sarah Meyer, 12-5-91. Department staff analyzed this data and concluded that "Ralls' hydrogeological report was very informative

and it presented a lot of valid data, yet, there was nothing in the report to suggest that no hydraulic connection was occurring and that there was not a potential for substantial interference." *Id.* Based on this, Department staff concluded that "[d]ue to the proximity of the wells to the creek and the aquifer characteristics gained from the Ralls geological report, I think it is accurate to assume both hydraulic connection to Conner Creek and that the potential for substantial interference exists. *Id.*

Despite this, at the Commission meeting of September 9 Mike Zwart testified that although this proposed use would tap an unconfined aquifer and that the surface and groundwater were hydraulically connected, he believed the potential for substantial interference was low. Audio Tapes of WRC Meeting, 9/9/94. His determination seemed to be based on the fact that there are low permeability soils at the proposed site of the well. Thus, he argued, the assumption made pursuant to OAR 690-09-040(4)(a) was rebutted.

WaterWatch disagrees that the assumption was properly rebutted. However, even if it was, what seems to have been unclear at the Commission meeting is that the Commission could still have found that the potential for substantial interference existed. Under OAR 690-09-040(5) a groundwater appropriation that is hydraulically connected to surface waters (and isn't covered by subsection 4, which this use no longer is per the rebutted assumption) could be found to have the potential for substantial interference. In making this determination, the Department should have considered at least a) the potential for a reduction in streamflow or surface water supply, b) the potential to impair or detrimentally affect the public interest as expressed by an applicable closure on surface water appropriation, minimum perennial streamflow, or instream water right with a senior priority date, c) the percentage of the ground water appropriations that was, or would have become, surface water, d) whether the potential for interference would be immediate or delayed, or e) the potential for cumulative adverse impact on streamflow or surface water supply.¹

Applying these standards (at a minimum) the Department should have found the potential for substantial interference. Given the large number of groundwater and surface water applications in the area—that the staff has acknowledged will impact surface resources—it is likely that these proposed appropriations will reduce surface water supply and add to the cumulative effects of withdrawals on the resource.

¹ Note—these are the minimum parameters the Department should have looked at. They could also have looked at other factors such as the ACEC designation, the presence of potentially listed species under the federal Endangered Species Act.

3. Standard of Review

The Ground Water Act of 1955 (GWA)(ORS 537.505 et seq) governs the use of ground water in Oregon. Applications for new uses of ground water filed pursuant to ORS 537.615 are subject to review under ORS 537.620 and may be rejected or approved subject to ORS 537.620 through 537.625. The GWA sets forth two standards by which to gauge the effect of the proposed use: 1) whether the proposed new use will "impair or substantially interfere with existing rights to appropriate surface water by others" (ORS 537.620.3), and 2) to ensure the "protection of the public welfare, safety and health" when making groundwater permitting decisions (ORS 537.620(5)).

As noted, the over 70 pending applications in the New River Basin are posing a threat to the water resources of the area, and upon the many unique species that depend upon them. Given that the biggest threat is to the actual resource, rather than to existing water right holders, the Commission was in error in limiting the applicable standard of review to whether the proposed new use would "impair or substantially interfere with existing rights". It is not existing rights which are at issue. It is the health of the ecosystem as a whole. An ecosystem that is not protected by any quantifiable right. Thus, the Commission should have analyzed this application in light of their duty to protect the public welfare, safety, and health. In doing such, it would be apparent that protection of the waters that fed one of the last remaining wild places in Oregon was in the paramount interest of the "public welfare." For this and other reasons, the Commission should rescind this permit.

4. Prejudice to other applicants

As noted, there are over 70 applications pending in the New River Basin. Of these 70, at least 13 are senior in priority date to this permit. The Commission has directed the Department to process applications in the order received. In this case, not only did the Department violate the Commission's directive by bringing this application forward out of order, but the Commission itself violated its own order. This was in error and unfairly prejudiced those applicants with senior priority dates.

The approval of this application also prejudiced those applicants with junior rights. Because of concern over the water resource of the New River Basin, the Director has stated that she will group many of the pending applications together. By excluding this application from that grouping, and processing in advance of resource determinations that will bind the other applicants, the Department and the Commission have unfairly prejudiced all the other applicants who hope to procure some of this scarce resource.

5. Endangered Species Concerns

Coastal Coho, which utilize the New River System for various stages of their life cycle, have been petitioned for listing under the state and federal Endangered Species Act. These Acts place a burden on the Commission. Under the state Act, the Commission is required to consult with the Oregon Department of Fish and Wildlife to ensure that any action taken by the Commission is consistent with ODFW programs to conserve the species or, if no plan is in place, that the act will not "reduce the likelihood of the survival or recovery of the threatened species of endangered species." ORS 496.182(2). The federal Act prohibits the "taking" of endangered species. 16 USCA § 1538(a)(1)(B). Taking is defined in Section (3)(18) includes "harm" as well as killing and capturing. 16 USCA § 1532 (19). The regulatory definition of "harm" includes "significant habitat modification or degradation where it actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding or sheltering." 50 CFR § 17.3. Thus it is clear that actions by the Commission can rise to the level of an unpermitted taking of a species if habitat destruction or modification harms a listed species. See Palilia v. Hawaii Department of Land and Natural Resources, 649 F.Supp. 1070 (D. Hawaii 1986), aff'd, 852 F.2d 1106 (9th Cir. 1988). Significantly, the above referenced Palilia case, the oft-cited case on habitat alteration rising to the level of take, involved a state agency that allowed goats to destroy the food source of an endangered bird. Taking water from fish is at least as clear a causal connection.

The issuance of this permit in the face of probable coastal coho listing was not in the public interest. Given the precarious state of the resource, the Commission erred in giving away water which may in fact be needed by a listed species. Moreover, by doing such, they may, in the long run, be relinquishing the state's control over this water resource by basically setting up a situation whereby the only way to get the proper flows for fish is to have the federal government come in and set up an area of critical habitat under the Act. 16 USCA § 1533(b)(2). It has been a goal of the state not to allow resource conflicts to reach the level where federal intervention removes the state control. The proposed approval of this application will inevitably lead to these issues being resolved in Washington D.C. not in Oregon.

6. Public Interest in the resource is not protected by conditions as proposed

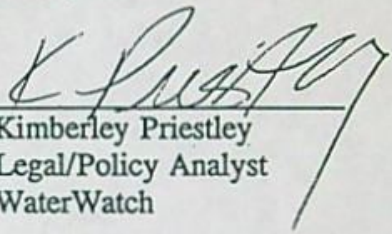
The permit fails to contain conditions that would protect the public interest in the resource. The permit does allow for regulation of water use, but only if it interferes with any prior surface or ground water rights. It does not allow for regulation if public instream needs are interfered with. As noted, it is the health of the water resource and the ecosystem it supports which is of great concern to federal and state agencies, various environmental groups, and the public at large. The Commission, in granting this permit without proper conditioning violated its duty to protect the public interest. For this and the aforementioned reasons the permit should be rescinded.

Moreover, given the combination of low stream flows and lack of data, the measuring and reporting conditions on this permit are inadequate. The permit does require measurement and reporting of the total duty of water used, however it still does not require measurement and reporting of both rate and duty and does not require reporting of the place and nature of use. These requirements are necessary in order to control the proposed sue and to ensure protection of the resource. For these and the aforementioned reasons the permit should be rescinded.

Conclusion

For the above reasons, WaterWatch respectfully requests that the Commission reconsider and rescind the permit, group it with the other pending applications for the New River Basin, and wait to process it, along with the others, until adequate data is collected and analyzed.

Respectfully submitted this 15 day of December, 1994.


Kimberley Priestley
Legal/Policy Analyst
WaterWatch

TO: Water Rights Section

Spencer

Unsent to WFC 9/19/94

FROM: Groundwater/Hydrology Section

Meeker

SUBJECT: Application G-12685

1. ✓ PER THE S. Coast Basin rules, one or more of the proposed POA's is/is not within 4 feet/mile of a surface water source (Conner Creek) and taps a groundwater source hydraulically connected to the surface water.

1 630 } Conner Creek
2 500 }

2. BASED UPON OAR 690-09 currently in effect, I have determined that the proposed groundwater use
a. will, or) have the potential for substantial interference with the nearest surface water
b. will not } source, namely Conner Creek; or
c. will, if properly conditioned, adequately protect the surface water from interference:
i. The permit should contain condition #(s) _____;
ii. The permit should contain special condition(s) as indicated in "Remarks" below;
iii. The permit should be conditioned as indicated in item 4 below; or
d. will, with well reconstruction, adequately protect the surface water from substantial interference.

Treat as surface water

3. BASED UPON available data, I have determined that groundwater for the proposed use
a. will, or) likely be available in the amounts requested without injury to prior rights and/or
b. will not } within the capacity of the resource; or
c. can, if properly conditioned, avoid injury to existing rights or to the groundwater resource;
i. The permit should contain condition #(s) _____;
ii. The permit should contain special condition(s) as indicated in "Remarks" below;
iii. The permit should be conditioned as indicated in item 4 below.

4. a. THE PERMIT should allow groundwater production from no deeper than 100 feet below land surface;
b. The permit should allow groundwater production from no shallower than 100 feet below land surface;
c. The permit should allow groundwater production only from the _____ groundwater reservoir between approximately _____ ft. and _____ ft. below land surface;
d. Well reconstruction is necessary to accomplish one or more of the above conditions.
e. One or more POA's commingle 2 or more sources of water. The applicant must select one source of water per POA and specify the proportion of water to be produced from each source.

REMARKS: _____

WELL CONSTRUCTION (If more than one well doesn't meet standards, attach an additional sheet.)

5. THE WELL which is the point of appropriation for this application does not meet current well construction standards based upon:
- a. review of the well log;
 - b. field inspection by _____;
 - c. report of CWRE: _____;
 - d. other: (specify) _____

6. THE WELL construction deficiency:
- a. constitutes a health threat under Division 200 rules;
 - b. commingles water from more than one groundwater reservoir;
 - c. permits the loss of artesian head;
 - d. permits the de-watering of one or more groundwater reservoirs;
 - e. other: (specify) _____

7. THE WELL construction deficiency is described as follows: _____

8. THE WELL was, or was constructed according to the standards in effect at the time of original construction or most recent modification.
- I don't know if it met standards at the time of construction.

RECOMMENDATION:

- A. I recommend including the following condition in the permit:
 "No water may be appropriated under terms of this permit until the well(s) has been repaired to conform to current well construction standards and proof of such repair is filed with the Enforcement Section of the Water Resources Department."
- B. I recommend withholding issuance of the permit until evidence of well reconstruction is filed with the Enforcement Section of the Water Resources Department.
- C. REFER this review to Enforcement Section for concurrence.

THIS SECTION TO BE COMPLETED BY ENFORCEMENT PERSONNEL

I concur in G/H's recommendation A or B above relating to conditioning or withholding the permit.
 _____, 1991.
 (Signature)

I do not concur in G/H's recommendation A or B above relating to conditioning or withholding the permit for the following reasons: _____

 _____, 1991.
 (Signature)

STATE OF OREGON
WATER RESOURCES DEPARTMENT

INT. OFFICE MEMO

DATE: 12-5-91

TO: File G12685

FROM: Sarah Meyer *SM*

SUBJECT: Hydraulic Connection and Potential for Substantial Interference

As a result of Harry Spencer's inquiry on the status of his water right application, a repeat investigation was done on the hydraulic connection and potential for substantial interference from his two proposed pumping wells. Mr. Spencer had hired a geologist, R.J. Ralls, to investigate the situation and Mr. Ralls concluded that there was no hydraulic connection or potential for substantial interference. However, the initial evaluation from the groundwater section showed hydraulic connection and the potential for substantial interference in accordance with the WRD Administrative Rules 690-09-040. Because the two wells are unconfined and within one-fourth mile from Conner Creek, they are defined in the rules as being both hydraulically connected and having the potential for substantial interference. The existence of a hydraulic gradient between the creek and the wells is irrelevant in this kind of analysis because the wells are still intercepting groundwater that would have eventually added to the creek flow. There is flexibility in the rules that provide the applicant leverage to refute this method of evaluation. Since the applicant provided additional hydrogeological information from a licensed geologist, the Department felt a second, more in depth, review was justified.

The second review involved an analysis of Mr. Ralls hydrogeological reports of the two wells. According to Mr. Ralls, the two wells were tapping into an unconfined aquifer but the amount of withdrawal would not be seen in Conner Creek. Using parameters calculated from the results of two four day pump tests, Mr. Ralls based this conclusion on the amount of drawdown seen one hundred feet from each pumping well. At one hundred feet, well #1, pumping at 144 gpm for 100 days, would cause 5.58 feet of drawdown and well #2, pumping at 84 gpm for half a day, would cause 3.9 feet of drawdown. By extending this drawdown the distance to the creek, he concluded no effects would be seen.

As a double check, the data obtained from the pump tests was redrawn into graphs and hydraulic parameters were recalculated. The range of recalculated transmissivities included those calculated by Mr. Ralls as did the values of storativity for well # 2. However, Mr. Ralls storativity value for well #1 fell outside of our recalculated range of storativities.

		TRANSMISSIVITY	STORATIVITY
R.J. Ralls	well #1	16,982 gpd/ft	.174
	well #2	6,187-6,329 gpd/ft	.0062-.0083
WRD	well #1	8,280-22,770 gpd/ft	.107-.023
	well #2	2,708-34,065 gpd/ft	.0066

Plugging these values into Jenkins' Model gives the following results for the time at 25% stream depletion:

R.J. Ralls	well #1	7.24 days
	well #2	1.18-1.61 days
WRD	well #1	0.71-9.13 days
	well #2	0.23-2.93 days

All these values are well within the guidelines outlined in the rules which refer to the 25% depletion within 30 days of pumping (with respect to substantial interference). Ralls' hydrogeological report was very informative and it presented a lot of valid data, yet, there was nothing in the report to suggest that no hydraulic connection was occurring and that there was not a potential for substantial interference. Due to the proximity of the wells to the creek and the aquifer characteristics gained from the Ralls geological report, I think it is accurate to assume both hydraulic connection to Conner Creek and that the potential for substantial interference exists.

P.02

	Stream	Location	Depth	G.H.	W	A	Q	A.T.	W.T.	Remarks
05-27-89	South Outlet of Croft Lake Trib. to New River	75' south of Power line	NE 1/4 Sec 10 T30S R15W	—	2.25	0.89	0.37	—	—	Taken after rain storm
08-23-89	South Outlet of Croft Lake trib to New River	" "	NE 1/4 Sec 10 T30S R15W	—	1.00	0.18	0.04	59°	70°	Intermittent for 2 days
05-25-89	N. Outlet of Croft Lake Trib. to New River	20' below the dam	NE 1/4 Sec 10 T30S R15W	—	7.50	3.91	5.72	—	—	Taken after RAIN STOP
05-27-89	N. Outlet of Croft Lake trib to New River	" "	NE 1/4 Sec 10 T30S R15W	—	7.50	4.13	5.50	—	—	
07-17-89	" "	" "	" "	—	7.00	2.47	1.63	65°	60°	
08-23-89	" "	" "	" "	—	6.50	2.41	1.57	59°	69°	Had 2 days intermittent
09-27-89	" "	" "	" "	—	6.00	1.72	0.36	61°	65°	
05-25-89	Conner Cr. Trib. to Davis Cr.	110' above the dam	NE 1/4 Sec 10 T30S R15W	—	2.00	1.37	3.23	—	—	Taken after RAIN STOP
07-17-89	" "	" "	NE 1/4 Sec 10 T30S R15W	—	5.25	1.65	0.71	71°	64°	
08-23-89	" "	" "	" "	—	3.00	2.36	0.66	64°	62°	Had 2 days without rain
09-29-89	" "	" "	" "	—	3.00	2.41	0.49	61°	63°	
05-25-89	Davis Cr. Trib. to Croft Lake	Abundant flow	NE 1/4 Sec 10 T30S R15W	—	7.00	1.78	1.70	—	—	Taken after rain storm
07-17-89	DAVIS Cr	" "	NE 1/4 Sec 10 T30S R15W	—	7.00	1.66	0.76	71°	62°	
08-23-89	" "	" "	" "	—	4.00	1.21	0.73	64°	63°	Had 2 days intermittent
09-29-89	" "	" "	" "	—	5.50	1.03	0.30	61°	63°	
05-27-89	Unnamed stream, trib to Croft Lake	" "	NE 1/4 Sec 10 T30S R15W	—	1.50	0.50	0.28	—	—	Taken after rain storm
07-17-89	UNIND Stream, trib to Croft Lake	" "	NE 1/4 Sec 10 T30S R15W	—	1.55	0.32	0.09	65°	61°	
08-23-89	" "	" "	" "	—	1.25	0.51	0.01	59°	67°	
07-17-89	Conner Cr. Trib. to Davis Cr.	45' below Spencey Mill	NE 1/4 Sec 10 T30S R15W	—	3.75	4.40	1.00	60°	64°	leaves taken above water means section contaminated

DEC 10-91 TUE 8:58

FAX TRANSMISSION COVER SHEET
COOS COUNTY ANNEX

DATE: 12-10-91

TIME: 0856

TO:

Donn Miller

Name

OWRD

Organization

378-8130

FAX Number

FROM:

T. P. Drolet

Name

Watermaster

Department

Coos County Annex
Coquille, Ore. 97423

503-396-2690
FAX Number

Number of pages 2 (including this cover sheet)

Description of
Transmittal:
Attached

Harry Spencer asked that I FAX the

Please call (503) 396-3121 ext. 254 if transmittal is incomplete or unreadable.

December 12, 1991

INTER-OFFICE MEMO

TO: Tom Shook

FROM: E. George Robison

Subject: Flows for Davis Cr. basin

Here are the flows for the Davis Cr. basin. I gave you flows derived from both the model and from basin ratios with nearby Ferry Cr. near Bandon. I recommend that you use the model flows because the Ferry Cr. data was based on data taken during the 1976-77 season and then extended out. While the extension gets rid of the drought effect in general, I think the distribution of flows generated from it was flattened somewhat by the drought.

Flow evaluation for Davis and Conner Cr. South Coast Basin Streamflows in 50% Exceedence Mean monthly flows CFS

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Davis Mod.	23.9	20.3	17.2	11.2	5.6	5.3	3.3	2.4	2.5	3.9	10.3	28.2
Davis Rat.	15.2	14.1	12.8	10.2	6.9	4.0	2.5	2.0	2.3	3.8	10.4	17.1
Conn. Mod.	8.2	6.8	5.8	3.9	1.9	1.6	1.0	0.7	0.7	1.3	3.6	10.0
Conn. Rat.	5.4	5.0	4.6	3.6	2.4	1.4	0.9	0.7	0.8	1.4	3.7	6.1

cc Fred Lissner
Barry Norris
Steve Applegate

STATE OF OREGON
WATER RESOURCES DEPARTMENT

INTEROFFICE MEMO

To: FILE

Date: October 6, 1992

From: MICHAEL ZWART^{MZ}

Subject: APPLICATION G-12685, HARRY SPENCER

Geologist Russell Ralls prepared a report, dated August 18, 1992, in support of this application. A copy was hand delivered to me by Kip Lombard at the August 28th Commission meeting. The principal conclusion of the report is that Conner Creek and its associated marsh are part of a perched water table which is separated from the marine terrace deposits developed by the applicant's wells. A review of the report prompted Donn Miller and me to review the file and earlier reports by Mr. Ralls, giving particular emphasis to the aquifer tests conducted at the two wells.

Mr. Ralls concludes in this latest report that Conner Creek and its marsh are perched on a layer of "ball clay." He believes that the clay acts as a confining bed for underlying confined aquifers that are actually in better hydraulic connection with the marine terrace deposits developed by the subject wells. He bases this conclusion on the prevalence of the clay encountered in many of the test borings and the deeper test well, and on one water level measurement in the deeper test well which indicated a lower head than Conner Creek for those confined aquifers.

I disagree with those conclusions. The aquifer developed by the subject wells is a water-table (unconfined) aquifer. This is supported by the aquifer tests covered in the earlier reports. The water levels in the wells has a higher head than Conner Creek, indicating a groundwater gradient toward the creek. Therefore, Conner Creek is likely in hydraulic connection with, and is a discharge area for, this water-table aquifer. The local presence of a clay layer, which appears to vary in thickness, may result in local steepening of the gradient and in a generally poor hydraulic connection with the creek. If the deeper confined aquifers encountered in the test well were actually hydraulically isolated from the creek, I would have expected the confined water level to have a higher head than the creek, resulting in a much lower groundwater gradient between the test well and the subject wells than is indicated in the cross-section in the report. I believe that the final water level reported for the test well may be depressed due to insufficient time (30 minutes) for the water level to equilibrate prior to measurement.

The aquifer test data were analysed to attempt to confirm or deny the presence of a recharge response. The data were not ideal for this purpose. In particular, the lack of any pre-test water level data and minimal water level recovery data required certain assumptions to be made regarding the test conditions. However, analysis of the drawdown data does not indicate that the wells are subject to a recharge response, at least during the first four days of pumping. Therefore, on this basis, it is tentatively concluded that the proposed use of groundwater may

Michael Zwart

October 6, 1992

Page 2

have low potential for substantial interference with Conner Creek, despite the fact that the wells develop a water-table aquifer that is hydraulically connected to it. A superseding review form is included with this memo. Permit condition 4I is recommended.

The three reports prepared by Mr. Ralls were based on work performed by him in support of his client's application. In the case of the earlier two reports, no communication with the Groundwater/Hydrology Section took place prior to his work. Had this occurred, it would likely have resulted in additional data being collected, allowing additional analyses to better verify the lack of a recharge response at the wells. Prior to undertaking such work on their own, it is recommended that applicants confer with staff hydrogeologists regarding the types of additional information that could be provided to attempt to rebut the presumption of hydraulic connection and/or the potential for substantial interference.

STATE OF OREGON
WATER RESOURCES DEPARTMENT

INTEROFFICE MEMO

To: CAROL SPENCE

Date: February 16, 1993

From: MIKE ZWART *MJZ*


Subject: APPLICATIONS G-12701, G-12705, G-12655 and G-12685

As you indicated, these applications are in the same general area, yet they received different reviews pursuant to the Division 9 rules. The Harry Spencer application (G-12685) received the only "favorable" review. This review was changed from an earlier unfavorable review on the basis of aquifer test data that indicated that the proposed use may have low potential for interference with Conner Creek. This was, however, a tentative conclusion, and strong permit conditions were suggested. It is likely that the aquifer developed is both unconfined and hydraulically connected to Conner Creek here, and elsewhere in the vicinity.

All determinations regarding the potential for substantial interference with surface water are rebuttable, and Mr. Spencer provided sufficient evidence to rebut the earlier determination. These data (Mr. Spencer's) do not bear on the other applications, however. Such data, if provided by the other applicants, may or may not rebut the determinations made. The other applicants in this case have not provided any additional data to support their applications. Fred Lissner has, since the time of these reviews, made an effort to have the same hydrogeologist review applications in the same area as a way of ensuring consistency.

To: STEVE BROWN

Date: August 22, 1994

From: MIKE ZWART 

Subject: HARRY SPENCER STAFF REPORT INSERT

Fred has asked that I write a paragraph or so about the reason the Division 9 review which I did reversed an earlier one done by Sarah Gates.

The applicant retained the services of Russell J. Ralls, a Registered Professional Geologist (G-934) to assist in his efforts to obtain a permit. Mr. Ralls prepared three separate reports for the applicant. The first two, dated September and October 1991, detail the results of aquifer tests at each of the applicant's two wells. A third report, dated August 1992, made the conclusion that the nearby surface water source, Conner Creek, is perched on a layer of clay, and therefore not hydraulically connected with the aquifer penetrated by the applicant's wells. Groundwater/Hydrology Section staff did not agree with that conclusion. However, staff analysed the data provided in the earlier reports to determine whether those data indicated the presence of a recharge boundary. The data were not ideal for such an analysis, but did not indicate a clear recharge response after four to five days of continuous pumping. On this basis, it was tentatively concluded that the wells may have low potential for substantial interference with Conner Creek. Since this conclusion was tentative, resource protection permit condition 4I was recommended on the review form and cover memo.

DETAILED REPORT ON WATER AVAILABILITY

Basin: South Coast

Stream: DAVIS CR

> CROFT L

Water Availability Subbasin: 5008000000000000

Exceedance Level: 50

Time: 11:22

Date: 05/02/1994

Month	Natural Stream Flow	CU + Stor Prior to 1/1/93	Water Available 1/1/93	CU + Stor After 1/1/93	Net Minimum Flow	Instream Water Rights	Net Water Available
1	28.10	5.40	22.70	.08	22.60	.00	22.60
2	31.10	5.50	25.60	.09	25.50	.00	25.50
3	26.70	5.10	21.60	.07	21.50	.00	21.50
4	13.10	5.17	7.93	.03	7.90	.00	7.90
5	5.41	5.32	.09	.00	.09	.00	.09
6	6.14	5.67	.47	.00	.47	.00	.47
7	4.71	5.97	-1.26	.00	-1.26	.00	-1.26
8	3.15	5.81	-2.66	.00	-2.66	.00	-2.66
9	2.26	5.42	-3.16	.00	-3.16	.00	-3.16
10	2.89	5.17	-2.28	.00	-2.28	.00	-2.28
11	14.70	5.28	9.42	.03	9.39	.00	9.39
12	30.70	5.40	25.30	.08	25.20	.00	25.20
Stor	10100	2570	6770	23	6750	0	6750

STATE OF OREGON
WATER WELL REPORT
(as required by ORS 537.765)

Well No. 39
Warehouse Well

T30S/R15W/11
16053
(START CARD)

(1) OWNER: HARRY SPENCER Well Number: 39
Name: GROWTH UNLIMITED TREE FARM
Address: P.O. BOX 291
City: LANGLOIS State: OR Zip: 97450

(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: 57'2"
Explosives used Yes No Type: Amount:

HOLE		SEAL		Amount sacks or pounds
Diameter	From To	Material	From To	
10"	0-1.8	CEMENT	0-1.8	800#
6"	1.8-5.8			

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
6"	4'1"	37'11"	12.5	<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"/>
				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Final location of shoe(s):

(7) PERFORATIONS/SCREENS:

Perforations Method: TELESCOPE
 Screens Type: JOHNSON Material: STAINLESS STEEL

From	To	Slot size	Number	Diameter	Tele/pipe size	Casing	Liner
38'10"	44'9"	.015		6"	6"	<input type="checkbox"/>	<input type="checkbox"/>
44'9"	50'1/4"	.012		6"	6"	<input type="checkbox"/>	<input type="checkbox"/>
50'1/4"	55'3/4"	.010		6"	6"	<input type="checkbox"/>	<input type="checkbox"/>
55'3/4"	57'2"			5"	5"	<input checked="" 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
42	6'9"	@ 53'	1 hr.

Temperature of water: 52° 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: COOS
Township: 30 S Nor S, Range: 15 W or W, WM
Section: 11 SE SE SE
Tax Lot: 1600 Lot: Block: Subdivision:
Street Address of Well (or nearest address): CROFT ROAD
OFF OF 101 SOUTH

(10) STATIC WATER LEVEL:
75'10" ft. below land surface Date: 3/13/90
Artesian pressure _____ lb. per square inch Date: _____

(11) WATER BEARING ZONES:
Depth at which water was first found: 25'

From	To	Estimated Flow Rate	SW
23'	55'	80	25

(12) WELL LOG: Ground elevation: 300'

Material	From	To	SW
CLAY BROWN	0	6	
SAND & GRAVEL BROWN	6	1.8	
GRAVEL/SAND, MED. BROWN	1.8	20	
GRAVEL/SAND, MED. GRAY	20	23	
GRAVEL/SAND, MED. RED	23	24	25
SAND & GRAVEL FINE BROWN	24	28	
CLAY/SAND BROWN	28	30	
SAND & GRAVEL FINE BROWN	30	46	
GRAVEL/SAND, MED. BROWN	46	50	
SAND, MED. BROWN	50	55	
CLAY GRAY	55	57	

Application No. 6-12685
Permit No. _____

Date started: 3/12/90 Completed: 3/20/90

(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.
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 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.
WWC Number 149
Signed Jim Mack Date 3/20/90

STATE OF OREGON
WATER WELL REPORT
(as required by ORS 537.765)

Well # 21 NEGE 'EU' T305/R15W/11
 O.I. 133W 2017
 E. Co. S. 1) OCT - 3 (S90IT CARD) 26375

(1) OWNER: Harry Spomer / Growth Unlimited
 Name Harry Spomer / Growth Unlimited
 Address 1111 1/2 N. Main St. Salem, OR 97301
 City Salem State OR Zip 97301

WATER COURSE OF DEPTH by legal description:
 SALEM, OREGON
 Township 30S North Range 15W East of W.W.
 Section 11 SE 1/4
 Tax Lot 1600 Lot 1 Block 1 Subdivision 1
 Address of Well (or nearest address) 1111 1/2 N. Main St. Salem, OR 97301

(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 Other
 Thermal Injection Other

(5) BORE HOLE CONSTRUCTION:
 Special Construction approval: Yes No
 Depth of Completed Well 22' 1/2
 Amount 1300'

HOLE SEAL

Diameter From	To	Material	From	To	Amount
10"	16"	Bentonite	0'	25'	1300'

How was seal placed? Method: A B C D E Other introduced from surface
 Backfill placed from 0' to 25' Material Bentonite
 Gravel placed from 0' to 25' Material Bentonite

(6) CASING/LINER:

Casing	Diameter	From	To	Gauge	Steel	Plastic	Welded	Threaded
	6"	+18"	35'	25'	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Liner: _____
 Final location of sheet: _____

(7) PERFORATIONS/SCREENS:

Method Telescope
 Type Johnson Material Stainless Steel

From	To	Slot size	Number	Diameter	Tele/pipe	Casing	Liner
37' 6"	43' 7 1/2"	.016		6"	Tele	<input type="checkbox"/>	<input type="checkbox"/>
43' 7 1/2"	48' 2 1/2"	.012		6"	Tele	<input type="checkbox"/>	<input type="checkbox"/>
48' 1 1/2"	54' 1 1/2"	.014		6"	Tele	<input type="checkbox"/>	<input type="checkbox"/>
54' 1 1/2"	58' 1 1/2"			5"	E.I.P.R	<input checked="" type="checkbox"/>	<input type="checkbox"/>

(8) WELL TESTS: Minimum testing time is 1 hour
 Pump Bailer Air Flowing Artesian
 Yield gal/min 40 Drawdown 11' for 4 hrs Drill stem at 55' Time 1 hr.
 Temperature of water 50' 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: _____

(10) STATIC WATER LEVEL:
 Date 8/29/91
 Depth 31'
 Artesian pressure 110' per square inch Date _____

(11) WATER BEARING ZONES:

From	To	Estimated Flow Rate
0'	31'	45

(12) WELL LOG:

From	To	Estimated Flow Rate
0'	12'	15
12'	16'	16
16'	22'	22
22'	26'	26
26'	30'	30
30'	31'	31

Date started 8/29/91 Completed 9/12/91

(unbonded) Water Well Constructor Certification:
 I certify that the work 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 knowledge and belief.
 Signed J. S. Suter WWC Number 61 Date 9/26/91

(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 belief.
 Signed J. W. Mack WWC Number 149 Date 9/26/91

Certificate of Service

I certify that on this 1st day of December, 1994, a copy of WaterWatch's Petition for Reconsideration for Permit G-11826 (Application G-12685) was served on each of the following by first class mail, postage paid, in the United States Mail from Portland, Oregon, enclosed in a sealed envelope and addressed as follows:

Kip Lombard
Attorney for Harry G. Spencer
P.O. Box 1090
Ashland, OR 97520

Martha Pagel, Director
Water Resources Department
158 12th Street NE
Salem, OR 97310

Cliff S. Bentz, Vice Chair
Water Resources Commission
Yturri, Rose, Burnham, Ebert & Bentz
P.O. Box S
Ontario, OR 97914

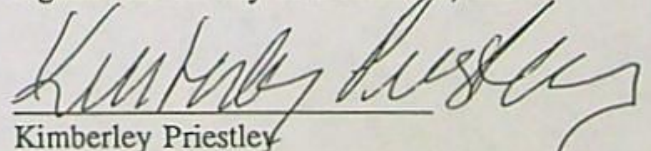
John L. Frewing
Water Resources Commission
Portland General Electric
121 SW Salmon
Portland, OR 97204

Anita Johnson
Water Resources Commission
2288 Birch Lane
Eugene, OR 97403

Nancy E. Leonard
Water Resources Commission
225 W. Olive Room 110
Newport, OR 97365

Michael Jewett
Water Resources Commission
353 Ridge Road
Ashland, OR 97520

Signed this 1st day of December, 1994


Kimberley Priestley

APPLICATION MAP

IN THE NAME OF HARRY G SPENCER

SECTIONS 11, 12, AND 13, T30S, R15W, W.M.

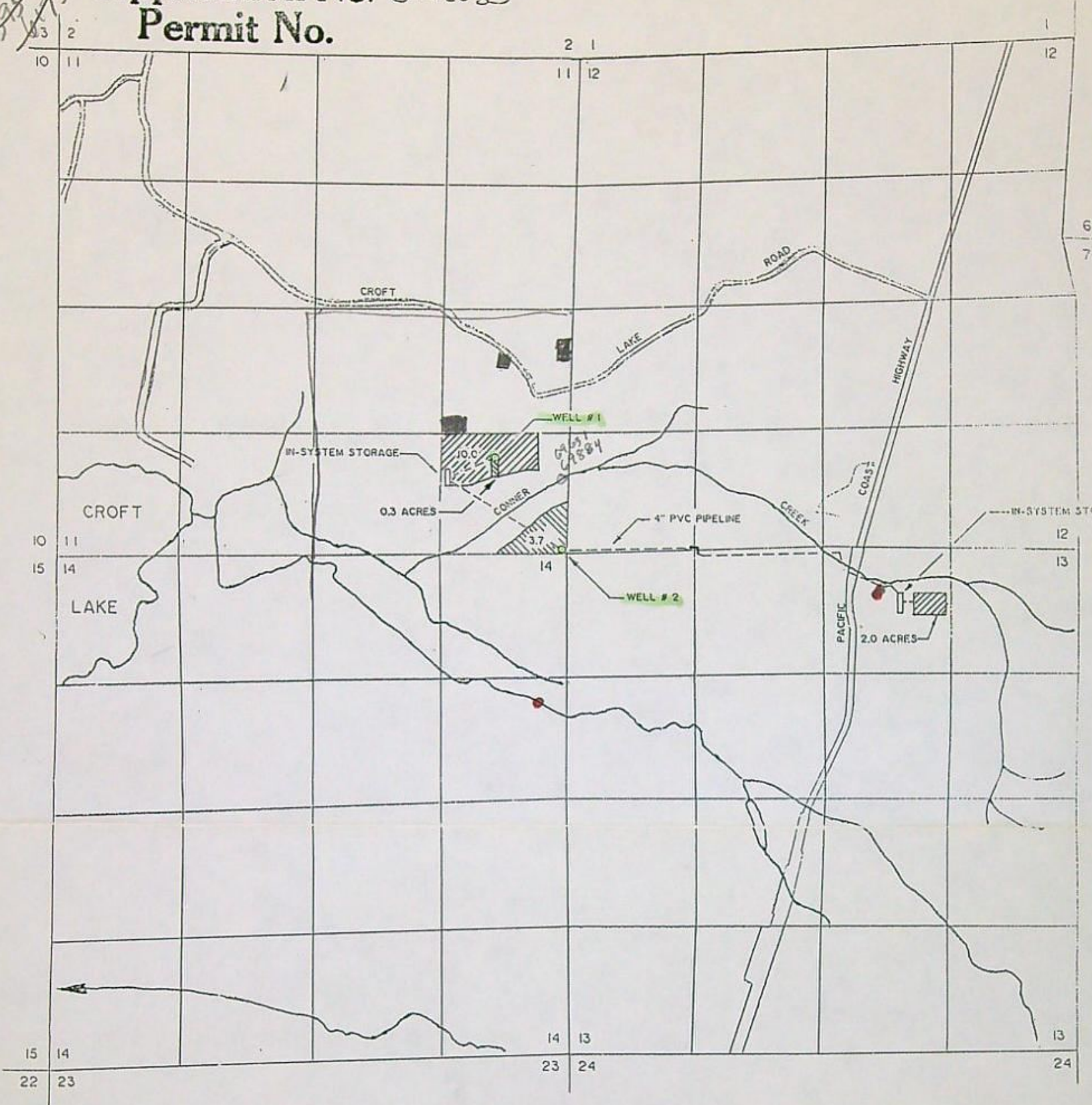
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001-3 1987

WATER RESOURCES DEPT.
1111 10th St. N.E.

Application No. G-12685
Permit No.

1320 FEET



-  CRANBERRY USE
-  NURSERY OPERATIONS

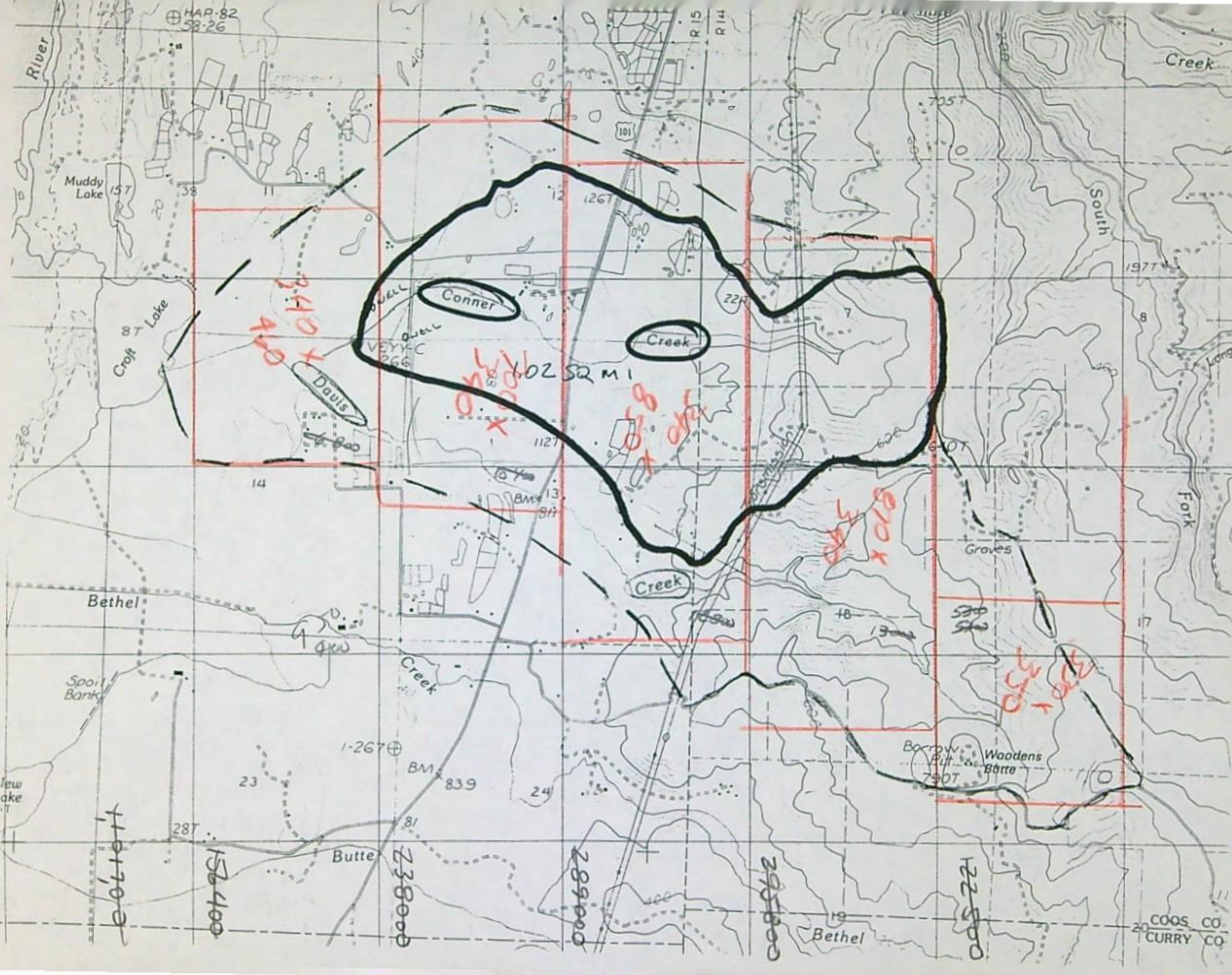
WELL # 1 IS LOCATED 1030 FEET NORTH AND 750 FEET WEST FROM THE SOUTHEAST CORNER OF SECTION 11.

WELL # 2 IS LOCATED 5 FEET NORTH AND 20 FEET WEST FROM THE SOUTHEAST CORNER OF SECTION 11, BOTH WELLS BEING WITHIN THE SOUTHEAST 1/4 OF THE SOUTHEAST 1/4 OF SECTION 11, TOWNSHIP 30 SOUTH, RANGE 15 WEST, W.M., COOS COUNTY.

THE PURPOSE OF THIS MAP IS TO IDENTIFY THE LOCATION OF THE WATER RIGHT. IT IS NOT INTENDED TO PROVIDE INFORMATION RELATIVE TO THE LOCATION OF PROPERTY OWNERSHIP BOUNDARY LINES.

Certified Water Right Examiner
#054 WRE
James F. Gocson
James F. Gocson
Nov. 19, 1987
STATE OF OREGON

HAP-82
58-26



Conner

Creek

Dauls

1.02 SQ MI

Creek

Bethel

Butte

Borrow Pit

Woodens Barre

Bethel

COOS CO.
CURRY CO.

810 x 340

810 x 340

810 x 340

810 x 340

110100

136400

238000

289000

295000

122500

RECEIVED

APPLICATION MAP

JAN - 3 1992

RECEIVED

IN THE NAME OF HARRY G SPENCER

WATER RESOURCES DEPT.
SALEM, OREGON

OCT - 3 1991

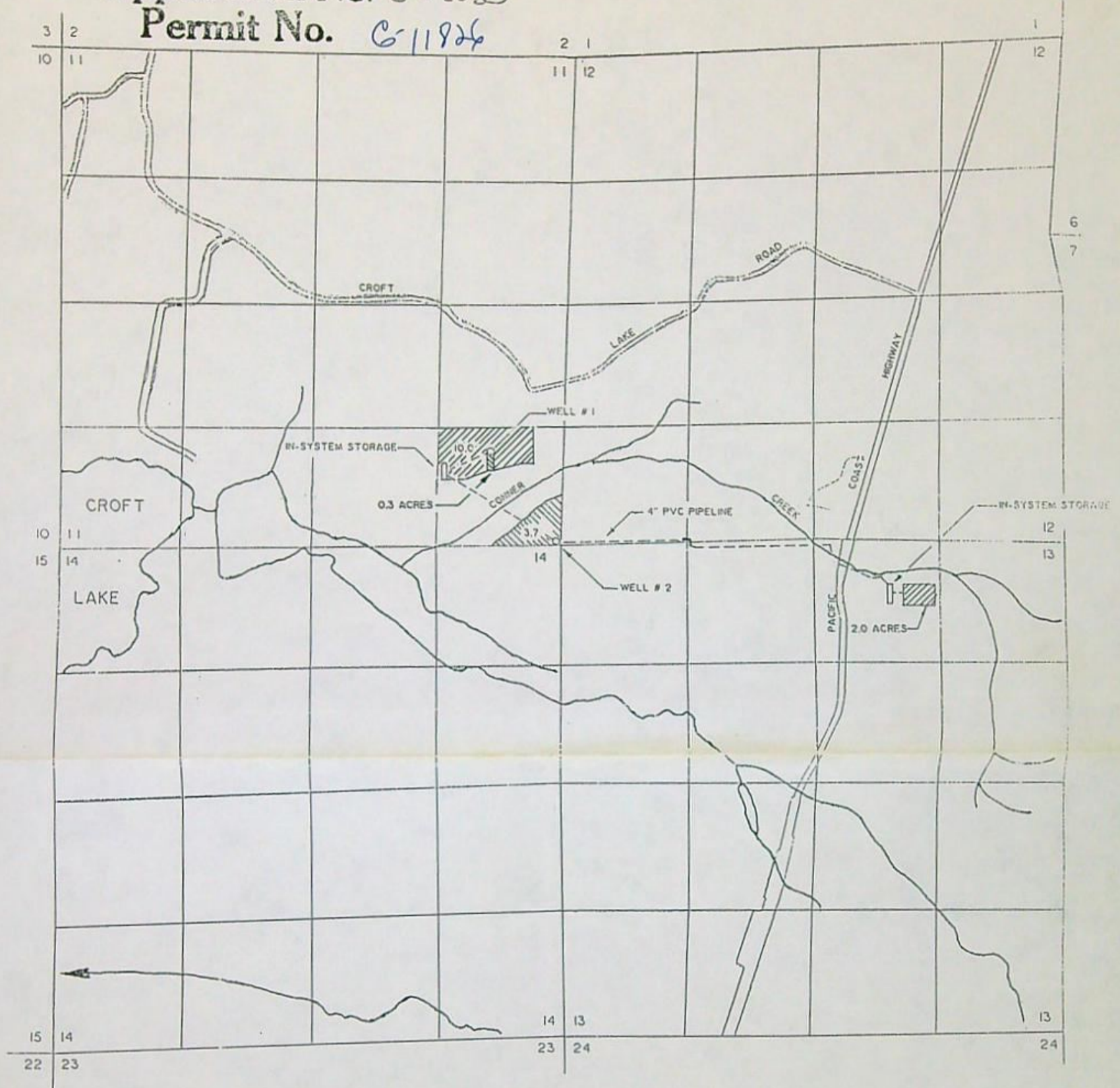
WATER RESOURCES DEPT.
SALEM, OREGON



SECTIONS 11, 12, AND 13, T30S, R15W, W.M.



Application No. 6-12685

Permit No. 6-11926



-  CRANBERRY USE
-  NURSERY OPERATIONS

WELL # 1 IS LOCATED 1030 FEET NORTH AND 750 FEET WEST FROM THE SOUTHEAST CORNER OF SECTION 11.

WELL # 2 IS LOCATED 5 FEET NORTH AND 20 FEET WEST FROM THE SOUTHEAST CORNER OF SECTION 11, BOTH WELLS BEING WITHIN THE SOUTHEAST 1/4 OF THE SOUTHEAST 1/4 OF SECTION 11, TOWNSHIP 30 SOUTH, RANGE 15 WEST, W.M., COOS COUNTY.

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Certified Water Right Examiner
#054 WRE
James F. Goetz
James F. Goetz
Nov. 19, 1987
STATE OF OREGON

APPLICATION MAP

RECEIVED

IN THE NAME OF HARRY G SPENCER

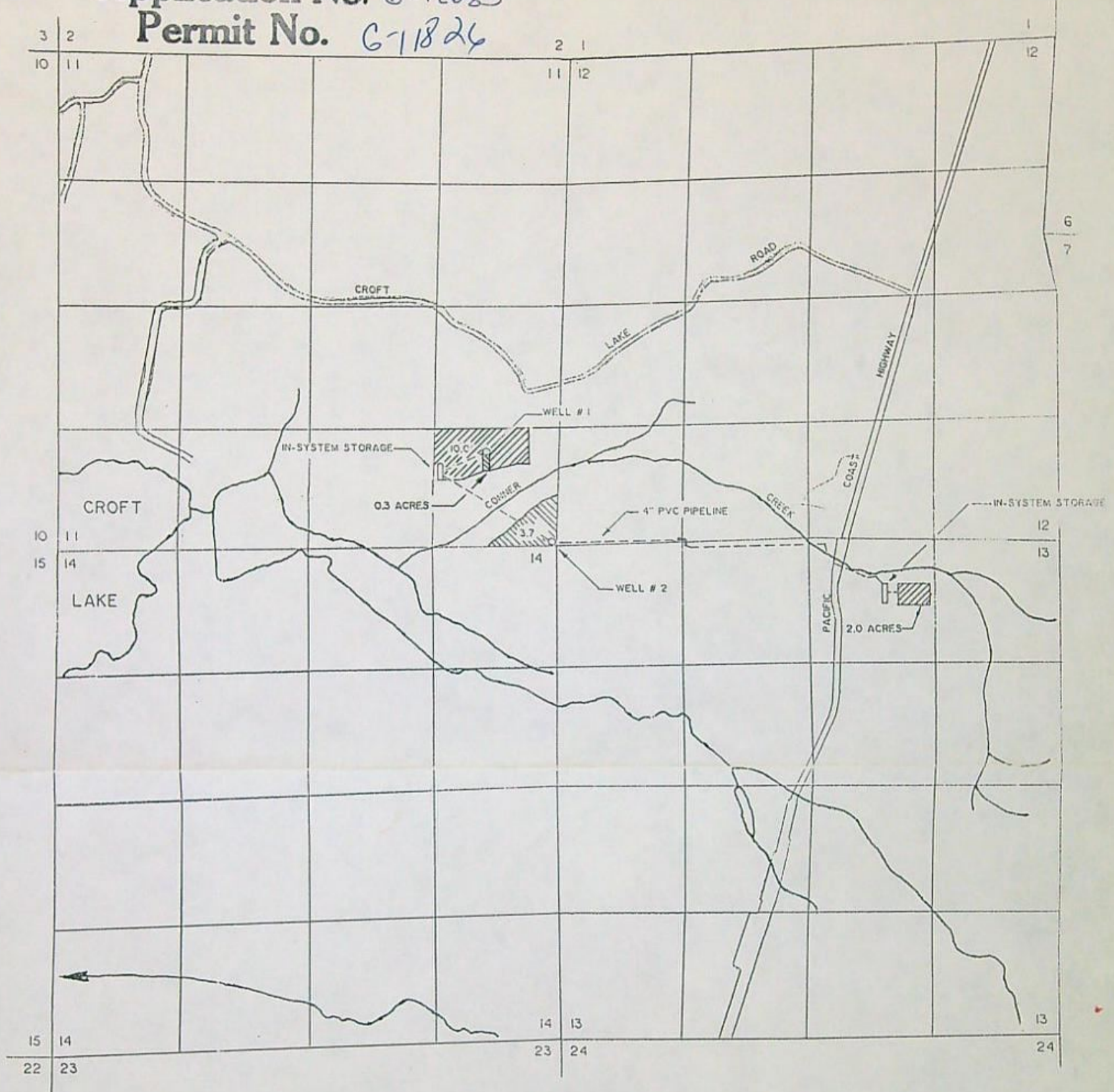
OCT - 3 1991



SECTIONS 11, 12, AND 13, T30S, R15W, W.M.

WATER RESOURCES DEPT.
SALEM, OREGON



Application No. G-12685
Permit No. G-1826

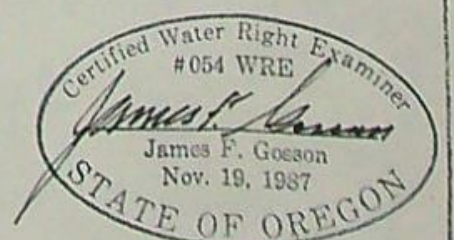


-  CRANBERRY USE
-  NURSERY OPERATIONS

WELL # 1 IS LOCATED 1030 FEET NORTH AND 750 FEET WEST FROM THE SOUTHEAST CORNER OF SECTION 11.

WELL # 2 IS LOCATED 5 FEET NORTH AND 20 FEET WEST FROM THE SOUTHEAST CORNER OF SECTION 11, BOTH WELLS BEING WITHIN THE SOUTHEAST 1/4 OF THE SOUTHEAST 1/4 OF SECTION 11, TOWNSHIP 30 SOUTH, RANGE 15 WEST, W.M., COOS COUNTY.

THE PURPOSE OF THIS MAP IS TO IDENTIFY THE LOCATION OF THE WATER RIGHT. IT IS NOT INTENDED TO PROVIDE INFORMATION RELATIVE TO THE LOCATION OF PROPERTY OWNERSHIP BOUNDARY LINES.



Water Watch OF OREGON

By FAX 378-8130 and Regular Mail

RECEIVED

APR 29 1993

WATER RESOURCES DEPT
SALEM, OREGON

April 28, 1993

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

Re: Objection to Technical Report for:
G-12685, Spencer, Coos Co., Cranberry Use

This application is the second application this month to be proposed for issuance in this area. This application, like application G-12692 requests ground water for cranberry operations in the Croft Lake Basin. We understand that numerous other applications for cranberry use are pending for this area. The cumulative impacts of these proposed uses are of great concern to WaterWatch. We have been in contact with residents in the area that have a concern about the capacity of the resource to accommodate all of these proposed uses.

Croft Lake and its surrounding tributaries and wetlands support a variety wildlife and fish life. Residents in the area have reported searun cutthroat trout in the lake and its tributaries. It is suspected that the trout spawn in the lakes tributaries. Croft lake is a is also a source of recreation in the area and area residents are concerned about maintaining the lakes existing water quality. The surrounding wetlands provide wildlife and other habitat and we understand that the Nature Conservancy has been involved in wetland protection efforts in the area.

We suggest that a meeting be held with the Department, WaterWatch and concerned citizens in the area to discuss the resource and the growing concerns about the capacity of the resource to accommodate further expansion of the cranberry industry. From the information contained in the technical report is it clear that little information is known about the hydrology of the water system in this area. We have been in contact with some researchers at an Oregon university who are embarking on a study of the area. This study should help the state better determine the impacts of these proposed uses on the ecosystem and wetlands in the Croft Lake Basin.

In addition, we submit 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).
- 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 did 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 report provides conclusions rather than evaluations of water availability. OAR 690-11-160(1)(f).
- 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(3), (6), (9), and (10). *See also*, OAR 690-11-195(3)(d), (4)(a), (4)(c)(A), (4)(d)(A), (4)(d)(B), (4)(e), and (4)(f). The proposed use may not be supported by existing groundwater supplies and is likely to deplete flows needed to for Croft Lake and other surface waters in the area. The South Coast Basin plan states:

Ground water is a significant factor in the maintenance of natural lakes in the dunes area. Extensive ground water development may affect lake water levels. Finding 5.

The total extent of the ground water supply in the basin has not been determined. Existing data suggest ground water supplies are limited and would not support irrigation in most areas. Finding 19.

Marine terrace deposits and sediments of the Coquille formation are potential ground water sources for irrigation of cranberries in the Bandon area. Finding 20.

Marine terrace deposits in the Harbor area are capable of producing large quantities of water, but some areas are approaching levels of sustained yield. Finding 21.

Income from water-related recreation is a major contributor to the economy of the South Coast Basin. Finding 39.

The natural lakes, storage reservoirs and free-flowing streams support part of the water-based recreation use. Finding 40.

The water resources, wetlands and associated habitat are critical to the subsistence and propagation of wildlife in the Basin. Finding 42.

The basin plan admits that little is known about groundwater in the basin. However, the presence of wetlands indicates that a hydraulic connection exists between groundwater and surface waters in the area and that groundwater levels are very close to the surface of the ground. Reduction in groundwater contribution to wetlands and surface waters will decrease contributions to existing wetlands and decrease inflows into the lake. Thus, groundwater in this area is vital to the maintenance of lake levels, surface water flows, and the protection of public uses of water including wildlife, recreation and fish.

- 1. 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 what is happening to the water resource. It also gives the 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.

Information about groundwater use and groundwater characteristics is especially crucial for management of the groundwater resource and surface water resources in the Croft Lake Basin. Those who benefit from using the resource should be called upon to provide information needed information about the resource. The permittee should be required to measure and report any use under this permit. In addition, the permittee should be required to measure and report water level elevations. This information is critical for resource protection and management. As a policy matter, WaterWatch believes that water use measurement and reporting should be required of every new permit issued in Oregon.

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

The groundwater resource in this area is likely connected to surface waters. However, the extent of the connection and the short and long term impacts of the connection on surface waters in the basin has not been determined. Oregon's ground water statute 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 particularly critical given the existing connection with surface waters, the relatively unpolluted condition of the surface waters, the public uses of the surface waters and the increasing pressure in this area to develop groundwater and surface water resources for irrigation of cranberry bogs.

There are at least four other pending applications pending for irrigation in this area. The Commission, in its basin plan has 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 and other pending permits should probably not be issued. At the very least, this permit must be reviewed in conjunction with the other pending applications for irrigation in the area to determine the cumulative impacts on the resource of these proposed and any existing uses. It is not in the public interest to turn a blind eye to the cumulative effects of this industry on the resource in the basin.

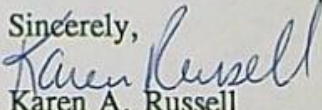
3. The use as proposed violates Oregon's statewide policies.

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 use as proposed to go forward violates all these policies. The Department's failure to manage the ground and surface waters conjunctively in the Croft Lake basin will only exacerbate existing overallocation problems, degrade water quality, and will, particularly in the long run, impair existing surface water rights and public uses in the basin. It is bad public policy to continue issuing groundwater rights in the face of increasing doubts as to whether increased groundwater use is sustainable.

◆ **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,

Karen A. Russell
Legal Affairs Coordinator

Ron Yackim

673-5528

Fax 472-0977

Cagurske, Johnston & Associates

PO Box 218

Roseburg OR 97470

6-12085

12/14/94

Please

keep this file
in the order
you have found
it - Darlene C.

Harry G. Spencel
Coos County -
G- 12685

JB
call back
Mon 11/16 P 10AM

CB
1:30pm
Nov 30

Kip Lombard -
482-8491 ✓

Call on
Thursday

12-9-98

I talked with Harry Spencer's son who will fill him in on status of app: he's in line, about how many apps ahead, can't say if will pass tech rev or not (apparently earlier he was told no probs with his tech rev. looked like green light - ~~no~~ but ^{now} may be no water available there); I explained process: tech rev, submit rev, 60 day etc etc -

He can't understand why they can't just have permit if had draft permit.

I'll also talk to
Kip Lombard
again Mon (Dec 14)
re Mr Spencers
app.

JL

IMPORTANT MESSAGEFOR Reed DarleneDATE 8-29 TIME _____ A.M.
P.M.M Harvey Spencer

OF _____

PHONE 347-3060
AREA CODE NUMBER EXTENSION FAX MOBILE _____
AREA CODE NUMBER TIME TO CALL

TELEPHONED		PLEASE CALL	X
CAME TO SEE YOU		WILL CALL AGAIN	
WANTS TO SEE YOU		RUSH	
RETURNED YOUR CALL		WILL FAX TO YOU	

MESSAGE _____

G 12685SIGNED Da

COUNTER

STATE OF OREGON
WATER RESOURCES DEPARTMENT

RECEIPT # 107042

3850 PORTLAND ROAD NE
SALEM, OR 97310
378-8455/378-8130 (FAX)

RECEIVED FROM: Karen A. Russell
BY: _____

APPLICATION	<u>612485</u>
PERMIT	
TRANSFER	

CASH: CHECK: # 24-201 OTHER: (IDENTIFY)

TOTAL REC'D \$ 25.00

01-00-0 WRD MISC CASH ACCT

842.010	ADJUDICATIONS	\$
831.087	PUBLICATIONS/MAPS	\$
830.650	PARKING FEES Name/month	\$
_____	OTHER: (IDENTIFY)	\$

REDUCTION OF EXPENSE

_____	CASH ACCT.	\$
_____	VOUCHER #	\$

COST CENTER AND OBJECT CLASS

03-00-0 WRD OPERATING ACCT

MISCELLANEOUS:		
840.001	COPY FEES	\$
850.200	RESEARCH FEES	\$
880.109	MISC REVENUE: (IDENTIFY)	\$
520.000	OTHER (P-6) (IDENTIFY)	\$

WATER RIGHTS:

842.001	SURFACE WATER	\$	842.002	\$
842.003	GROUND WATER	\$	842.004	\$
842.005	TRANSFER	\$	842.006	\$

WELL CONSTRUCTION

842.022	WELL DRILL CONSTRUCTOR	\$	842.023	\$
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EXAM FEE
\$
\$
\$
EXAM FEE
\$

RECORD FEE
\$
\$
\$
LICENSE FEE
\$
\$

842031

LANDOWNER'S PERMIT
OTHER (IDENTIFY) 425506230001

Protest

25.00

06-00-0 WELL CONST START FEE

842.013	WELL CONST START FEE	\$	CARD #	
_____	MONITORING WELLS	\$	CARD #	

45-00-0 LOTTERY PROCEEDS

864.000	LOTTERY PROCEEDS	\$
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07-00-0 HYDRO ACTIVITY

842.011	POWER LICENSE FEE(FW/WRD)	LIC NUMBER	\$
842.115	HYDRO LICENSE FEE(FW/WRD)		\$
_____	HYDRO APPLICATION		\$

RECEIPT # 107042

DATED: 11-15-93

BY: Kuster Jones

NUMBER 88451

Check 100⁰⁰ NO _____ Cash _____

____ Surface Application

____ Reservoir Application

____ Ground Water Application

____ Transfer Application

____ Power Claim

____ Hydroelectric Examination

____ Hydroelectric License

____ Copying To: Tom Shook

____ Assignment

Extension of Time

____ Other

____ P-6

____ Quadrangle

____ Basin

____ Protest

____ Constructors Examination

____ Constructors License

____ Adjudication