Water Right Conditions Tracking Slip

Groundwater/Hydrology Section

FILE #: G-14461

ROUTED TO: Water Rights

TOWNSHIP/
RANGE-SECTION: 16S/43E-7ca

CONDITIONS ATTACHED? [✓] yes [ ] no

REMARKS OR FURTHER INSTRUCTIONS:

Reviewer: Michael Zwart

TO: Water Rights Section March 17, 1997

FROM: Groundwater/Hydrology Section Michael Zwart
Reviewer's Name

SUBJECT: Application G-14461

GROUNDWATER/SURFACE WATER CONSIDERATIONS

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
   b. ___ will not surface water source, namely _____; or
   c. X will if properly conditioned, adequately protect the surface water from interference:
      i. X The permit should contain condition #(s) 7B;
      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 from substantial interference.

GROUNDWATER AVAILABILITY CONSIDERATIONS

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
   b. ___ will not and/or within the capacity of the resource; or
   c. X will if properly conditioned, avoid injury to existing rights or to the groundwater resource:
      i. X The permit should contain conditions #(s) 7B & 7E
      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

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: _____

(Well Construction Considerations on Reverse Side)

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

_____ _____, 199__.
(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:_____
_____
_____

_____ _____, 199__.
(Signature)

Water Resources Department

MEMO March 17, 1997

TO Application G-14461

FROM GW: Michael Zwart
(Reviewer's Name)

SUBJECT **Scenic Waterway Interference Evaluation**

☐ Yes
☑ No — The source of appropriation is within or above a Scenic Waterway.

☐ Yes
☑ No — Use the Scenic Waterway condition (Condition 7J).

PREPONDERANCE OF EVIDENCE FINDING: (Check box only if statement is true)

☑ At this time the Department is unable to find that there is a preponderance of evidence that the proposed use of ground water will measurably reduce the surface water flows necessary to maintain the free-flowing character of a scenic waterway in quantities necessary for recreation, fish and wildlife.

FLOW REDUCTION: ***(To be filled out only if Preponderance of Evidence box is not checked)***

Exercise of this permit is calculated to reduce monthly flows in _____ Scenic Waterway by the following amounts expressed as a proportion of the consumptive use by which surface water flow is reduced.

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec

STATE OF OREGON
WATER RESOURCES DEPARTMENT

INTEROFFICE MEMO

To: FILE

Date: March 17, 1997

From: MICHAEL ZWART

Subject: APPLICATION G-14461, GUM CREEK FARMS, WILLIAM HEID

This application proposes to appropriate 7.90 cfs from five wells for primary and supplemental irrigation of 633.7 acres. The wells are all existing and range in depth from 310 to 370 feet. All wells penetrate a confined aquifer developed in sand or clayey sand overlain by thick clay beds. The wells range from about 2000 to 4000 feet from Gum Creek, but are closer to an unnamed tributary of Gum Creek. There is no potential for substantial interference with the creeks, based on the nature of the aquifer penetrated.

I recommend permit conditions 7B and 7E.


Brogan Quad
G-14461
12' 30"
4895
4894
4893
4892
4891
10'
BROGAN
3071
DRY
Creek
Gum
ABANDONED
DITCH
4WD
Well
1-31A
3035
1-13 B
3150
1-13-2
1-13 N
4-132
4-133
#18
#20
#19
#17
#15
Lick
Creek
18
2976T
2935T
2956T
3290T
3318T
3138T
3101T
2859T
2947T
2991T
2972T
3235T
3572
3020T
2923T
3200
3135T
2931T
3126T
3124T
3292T
3018T
2860T
3145T
3212T
3425T
2928T
2985T
3600
3428T
3725T
3432T
3400
3154T
2910T
3368T

Addendum to Application

WELL # 15
Located in the NW 1/4 SW 1/4, Section 7, T16S, R43E, WM;
2655 feet South and 116' feet East from NW corner, Section 7
37 Feet above Gum Creek Streambed.

1.35 cfs. on 108.5 acres. 29.9 acres Primary, 78.6 supplementary.

PRIMARY

SW 1/4	NW 1/4	14.0	ACRES
NW 1/4	SW 1/4	2.2	ACRES

SECTION 7 T16S,R43E

NE 1/4	SE 1/4	1.0	ACRES
NE 1/4	SW 1/4	2.9	ACRES
SE 1/4	SW 1/4	1.1	ACRES
SW 1/4	SE 1/4	4.4	ACRES
SE 1/4	SE 1/4	4.3	ACRES

SECTION 17, T16S,R43E

SUPPLEMENTAL

NW 1/4	NW 1/4	28.0	ACRES	
SW 1/4	NW 1/4	11.1	ACRES	
NE 1/4	NW 1/4	1.7	ACRES	
SE 1/4	NW 1/4	1.6	ACRES	supplemental to cert. 26616
NE 1/4	SW 1/4	36.2	ACRES	supplemental to cert. ~~45~~-51776

SECTION 8, T16S,R43E

WELL # 17
Located in the NW 1/4 SW 1/4, Section 7, T16S, R43E, WM;
2828 feet South and 1097' feet East from NW corner, Section 7
21 Feet above Gum Creek Streambed.

1.43 cfs. on 114.5 acres. 54.1 acres Primary, 60.4 supplementary.

PRIMARY

SW 1/4	NW 1/4	3.0 ACRES
SE 1/4	NW 1/4	6.3 ACRES
NW 1/4	SW 1/4	12.8 ACRES
NE 1/4	SW 1/4	28.0 ACRES
SW 1/4	SW 1/4	2.0 ACRES
SE 1/4	SW 1/4	2.0 ACRES

SECTION 7, T16S,R43E

SUPPLEMENTAL

NW 1/4	SE 1/4	1.5 ACRES
NE 1/4	SE 1/4	1.7 ACRES
SE 1/4	SW 1/4	1.5 ACRES
SW 1/4	SE 1/4	35.7 ACRES
SE 1/4	SE 1/4	20.0 ACRES

supplemental to cert. 46-51776

SECTION 8, T16S,R43E

WELL # 18
Located in the NW 1/4 NW 1/4, Section 7, T16S, R43E, WM;
769 feet South and 32' feet East from NW corner, Section 7
135 Feet above Gum Creek Streambed.

1.22 cfs. on 98.0 acres. 76.5 acres Primary, 21.5 supplementary.

PRIMARY

SW 1/4 SE 1/4 1.3 ACRES
SECTION 6, T16S,R43E

NE 1/4 NW 1/4 15.5 ACRES
NW 1/4 NE 1/4 38.0 ACRES
NE 1/4 NE 1/4 1.0 ACRES
SE 1/4 NW 1/4 4.8 ACRES
SW 1/4 NE 1/4 15.9 ACRES
SECTION 17, T16S,R43E

SUPPLEMENTAL

SE 1/4 SE 1/4 7.5 ACRES
SECTION 6, T16S,R43E supplemental to cert. 26616

NE 1/4 NE 1/4 14.0 ACRES supplemental to cert. 26616
SECTION 7, T16S,R43E

WELL # 19
Located in the SW 1/4 NW 1/4, Section 7, T16S, R43E, WM;
2286 feet South and 24' feet East from NW corner, Section 7
28 Feet above Gum Creek Streambed.

1.79 cfs on 143.4 acres. 112.9 acres Primary, 30.5 supplementary.

PRIMARY

SE 1/4 SE 1/4 7.6 ACRES
SECTION 7 T16S,R43E

NW 1/4 SW 1/4 3.5 ACRES
SW 1/4 SW 1/4 38.0 ACRES
SECTION 8 T16S,R43E

NW 1/4 NW 1/4 3.0 ACRES
SW 1/4 NW 1/4 4.2 ACRES
NW 1/4 SW 1/4 40.0 ACRES
NE 1/4 SW 1/4 16.6 ACRES
SECTION 17, T16S,R43E

SUPPLEMENTAL

SE 1/4 SE 1/4 16.2 ACRES supplemental to cert. ~~46~~-51776
SECTION 8, T16S,R43E

NE 1/4 NE 1/4 14.3 ACRES supplemental to cert. ~~46~~-51776
SECTION 17, T16S,R43E

WELL # 20
Located in the SW 1/4 NW 1/4, Section 7, T16S, R43E, WM;
1588 feet South and 50' feet East from NW corner, Section 7
39 Feet above Gum Creek Streambed.

2.11 cfs on 169.3 acres. 106.8 acres Primary, 62.5 supplementary.

PRIMARY

SW 1/4 SW 1/4 38.5 ACRES
SE 1/4 SW 1/4 35.6 ACRES
SECTION 17 T16S,R43E

NE 1/4 SE 1/4 18.3 ACRES
SE 1/4 SE 1/4 14.4 ACRES
SECTION 18 T16S,R43E

SUPPLEMENTAL

NE 1/4 NW 1/4 1.9 ACRES
NW 1/4 NE 1/4 37.6 ACRES
NE 1/4 NE 1/4 20.0 ACRES
SW 1/4 NE 1/4 1.9 ACRES
SE 1/4 NE 1/4 1.1 ACRES supplemental to cert. ~~46~~-51776
SECTION 17, T16S,R43E

Oregon Water Resources Department

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WATER RESOURCES DEPT.
SALEM, OREGON

FORM I

FOR IRRIGATION WATER USE

1. Please indicate whether you are requesting a primary or supplemental irrigation water right.

☒ Primary ☑ Supplemental

If supplemental, please indicate the number of acres that will be irrigated for each type of use.

Primary: 380.2 Acres SEE MAP.

Secondary: 253.5 Acres + ADDENDUM

List the permit or certificate number of the primary water right: no. 26616 & 51776

2. Please list the anticipated crops you will grow and whether you will be irrigating them for a full or partial season:

1. HAY ☒ Full season ☐ Partial season (from: APRIL to OCT.)
2. CORN ☒ Full season ☐ Partial season (from: MAY to OCT.)
3. SMALL GRAIN ☒ Full season ☐ Partial season (from: APRIL to SEPT)
4. _____ ☐ Full season ☐ Partial season (from: _____ to _____)

3. Indicate the maximum total number of acre-feet you expect to use in an irrigation season:

1901.1 acre-feet

(1 acre-foot equals 12 inches of water spread over one acre, or 43,560 cubic feet, or 325,851 gallons.)

4. How will you schedule your applications of water? Will you be applying water in the evenings, twice a week, daily?

☐ Daily during daytime hours
☐ Daily during nighttime hours
☐ Two or three times weekly during daytime
☐ Two or three times weekly during nighttime
☐ Weekly, during daytime hours
☐ Weekly, during nighttime hours
☒ Other, explain: 24 HR SETS EVERY WEEK / OR CONTINOUS with pivots.

inal and first copy of this report are to be filed with the WATER RESOURCES DEPARTMENT. SALEM, OREGON 97310 within 30 days from the date of well completion.

DEC 0 1 1980

WATER RESOURCES DEPT SALEM. OREGON

WATER WELL REPORT

STATE OF OREGON well #15

(Please type or print) (Do not write above this line)

State Well No. 16S/43E-7aE

State Permit No.

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WATER RESOURCES DEPT SALEM, OREGON

(1) OWNER:

Name Gum Creek Farms, Inc.

Address c/o Heid Bros. Jamieson, Or. 97909

(2) TYPE OF WORK (check):

New Well ☒ Deepening ☐ Reconditioning ☐ Abandon ☐

If abandonment, describe material and procedure in Item 12.

(3) TYPE OF WELL:

Rotary ☐ Driven ☐
Cable ☒ Jetted ☐
Dug ☐ Bored ☐

(4) PROPOSED USE (check):

Domestic ☐ Industrial ☐ Municipal ☐
Irrigation ☒ Test Well ☐ Other ☐

(5) CASING INSTALLED:

Threaded ☐ Welded ☒

12 3/4" Diam. from +1 ft. to 286 ft. Gage .318

..... " Diam. from ..... ft. to ..... ft. Gage .....

..... " Diam. from ..... ft. to ..... ft. Gage .....

(6) PERFORATIONS:

Perforated? ☒ Yes ☐ No.

Type of perforator used Factory

Size of perforations ..... in. by ..... in.

..... perforations from ..... ft. to ..... ft.

..... perforations from ..... ft. to ..... ft.

..... perforations from ..... ft. to ..... ft.

(7) SCREENS:

Well screen installed? ☐ Yes ☒ No

Manufacturer's Name .....

Type ..... Model No. .....

Diam. ..... Slot size ..... Set from ..... ft. to ..... ft.

Diam. ..... Slot size ..... Set from ..... ft. to ..... ft.

(8) WELL TESTS:

Drawdown is amount water level is lowered below static level

Was a pump test made? ☐ Yes ☒ No If yes, by whom?

Yield: ..... gal./min. with ..... ft. drawdown after ..... hrs.

" " "

" " "

Bailer test 20 gal./min. with 0 ft. drawdown after 1 hrs.

Artesian flow ..... g.p.m.

Temperature of water 68 Depth artesian flow encountered ..... ft.

(9) CONSTRUCTION:

Well seal—Material used Portland Cement

Well sealed from land surface to 18 ft.

Diameter of well bore to bottom of seal 16 in.

Diameter of well bore below seal 12 in.

Number of sacks of cement used in well seal 24 sacks

How was cement grout placed? with grout pump

Was a drive shoe used? ☒ Yes ☐ No Plugs ..... Size: location ..... ft.

Did any strata contain unusable water? ☐ Yes ☒ No

Type of water? ..... depth of strata .....

Method of sealing strata off .....

Was well gravel packed? ☐ Yes ☒ No Size of gravel: .....

Gravel placed from ..... ft. to ..... ft.

(10) LOCATION OF WELL:

County Malheur Driller's well number 80-28

SW ¼ NE ¼ Section 7 T. 16S R. 43E

Bearing and distance from section or subdivision corner .....

(11) WATER LEVEL: Completed well.

Depth at which water was first found 270 ft.

Static level 91 ft. below land surface. Date 10/8/80

Artesian pressure ..... lbs. per square inch. Date .....

(12) WELL LOG:

Diameter of well below casing 12"

Depth drilled ~~386~~ 396 Depth of completed well 348 ft.

Formation: Describe color, texture, grain size and structure of materials; and show thickness and nature of each stratum and aquifer penetrated, with at least one entry for each change of formation. Report each change in position of Static Water Level and indicate principal water-bearing strata.

MATERIAL	From	To	SWL
Top soil	0	3	
Clay, fine, brown & boulders	3	9	
Gravel, fine	9	12	
Clay, fine, brown	12	25	
Sandstone, brown, hard	25	170	
Clay, blue, fine w/sand streaks	170	270	
Clay, blue & sand, gray, fine, water bearing	270	348	91
Clay, blue, hard	348	396	91

Work started 9/20 19 80 Completed 10/19 1980

Date well drilling machine moved off of well 10/20 1980

Drilling Machine Operator's Certification:

This well was constructed under my direct supervision. Materials used and information reported above are true to my best knowledge and belief.

[Signed] Herbert A. Bauman Date 11-20, 1980
(Drilling Machine Operator)

Drilling Machine Operator's License No. 1406

Water Well Contractor's Certification:

This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.

Name PIONEER WATER DEVELOPMENT, INC.
(Person, firm or corporation) (Type or print)

Address Rt. 3 Box 493 Ontario, Or. 97914

[Signed] J. DeLeon
(Water Well Contractor)

Contractor's License No. 748 Date 11-15, 1980

(USE ADDITIONAL SHEETS IF NECESSARY)

SP*45650-119

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

well # 17

(START CARD) # W-47701

Instructions for completing this report are on the last page of this form.

(1) OWNER: Well Number 106223
Name Gum Creek Farms Inc.
Address 5070 S. Rd. K
City Vale State Or. Zip 97918

(2) TYPE OF WORK
[X] New Well [ ] Deepening [ ] Alteration (repair/recondition) [ ] Abandonment

(3) DRILL METHOD:
[ ] Rotary Air [ ] Rotary Mud [X] Cable [ ] Auger
[ ] Other

(4) PROPOSED USE:
[ ] Domestic [ ] Community [ ] Industrial [X] Irrigation
[ ] Thermal [ ] Injection [ ] Livestock [ ] Other

(5) BORE HOLE CONSTRUCTION:
Special Construction approval [ ] Yes [X] No Depth of Completed Well ____ ft.
Explosives used [ ] Yes [X] No Type ____ Amount ____

HOLE Diameter	From	To	SEAL Material	From	To	Sacks or pounds
20	0	18	Bentonite	0	18	54 sacks
14	18	370				

How was seal placed: Method [ ] A [ ] B [ ] C [ ] D [ ] E
[ ] Other Dry
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:	16	+1	18	.250	[X]	[ ]	[X]	[ ]
					[ ]	[ ]	[ ]	[ ]
					[ ]	[ ]	[ ]	[ ]
					[ ]	[ ]	[ ]	[ ]
Liner:					[ ]	[ ]	[ ]	[ ]
					[ ]	[ ]	[ ]	[ ]

Final location of shoe(s) 18 ft.

(7) PERFORATIONS/SCREENS:
[ ] Perforations Method ____
[ ] Screens Type ____ Material ____

From	To	Slot size	Number	Diameter	Tele/pipe size	Casing	Liner
						[ ]	[ ]
						[ ]	[ ]
						[ ]	[ ]
						[ ]	[ ]
						[ ]	[ ]

(8) WELL TESTS: Minimum testing time is 1 hour

[X] Pump [ ] Bailer [ ] Air [ ] Flowing Artesian

Yield gal/min	Drawdown	Drill stem at	Time
700	146 ft.		1 hr.

Temperature of water 74 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: 30 ft.

(9) LOCATION OF WELL by legal description:
County Malheur Latitude ____ Longitude ____
Township 16 S N or S Range 43 E or W. WM.
Section 7 S W. 1/4 N W. 1/4
Tax Lot 900 Lot ____ Block ____ Subdivision ____
Street Address of Well (or nearest address) 14 th. Ave West

(10) STATIC WATER LEVEL:
96 ft ft. below land surface. Date 9-26-96
Artesian pressure ____ lb. per square inch. Date ____

(11) WATER BEARING ZONES:
Depth at which water was first found 132 ft.

From	To	Estimated Flow Rate	SWL
330 ft.	360 ft.	900 g.p.m.	96

(12) WELL LOG:
Ground Elevation ____

Material	From	To	SWL
Soil	0	4	
Brn clay	4	8	
Brn. clay brn. gravel(med.)	8	12	
Brn. clay	12	132	
Blue clay gry.sand(fine)	132	170	96
Blue clay	170	330	96
Blue-gry.sand blue clay	330	360	96
Gry. clay	360	370	96

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SALEM, OREGON

Date started 9-12-96 Completed 10-17-96

(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 water supply well construction standards. Materials used and information reported above are true to the best of 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. All work performed during this time is in compliance with Oregon water supply well construction standards. This report is true to the best of my knowledge and belief.
WWC Number 1300
Signed [signature] Date 10-18-96

ORIGINAL & FIRST COPY-WATER RESOURCES DEPARTMENT SECOND COPY-CONSTRUCTOR THIRD COPY-CUSTOMER

STATE OF OREGON

WATER WELL REPORT

(as required by ORS 537.765)

(START CARD) # 47681

(1) OWNER:

Well Number: #18

Name Gum Creek Farms Inc.

Address 5070 S. Rd. K

City Vale State Or. Zip 97918

(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 360 ft.

Explosives used Yes ☐ No ☒ Type ____ Amount ____

HOLE Diameter	From	To	SEAL Material	From	To	Amount sacks or pounds
20	0	19	Bentonite	0	19	22 sacks
16	19	358				

How was seal placed: Method ☐ A ☐ B ☐ C ☐ D ☐ E

☐ Other Dry

Backfill placed from ____ ft. to ____ ft. Material ____

Gravel placed from 0 ft. to 358 ft. Size of gravel 1/4

(6) CASING/LINER:

	Diameter	From	To	Gauge	Steel	Plastic	Welded	Threaded
Casing:	16	+1	19	.250	☒	☐	☒	☐
					☐	☐	☐	☐
					☐	☐	☐	☐
	12	0	358		☐	☐	☐	☐
Liner:				.203	☒	☐	☒	☐
					☐	☐	☐	☐

Final location of shoe(s)

(7) PERFORATIONS/SCREENS:

☒ Perforations Method torch

☐ Screens Type ____ Material ____

From	To	Slot size	Number	Diameter	Tele/pipe size	Casing	Liner
200	350	1/8x4	700	12		☐	☒
						☐	☐
						☐	☐
						☐	☐
						☐	☐
						☐	☐

(8) WELL TESTS: Minimum testing time is 1 hour

☒ Pump ☐ Bailer ☐ Air ☐ Flowing Artesian

Yield gal/min	Drawdown	Drill stem at	Time
			1 hr.
400	85		8 hrs.

Temperature of water 64* 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 no

Depth of strata: 80

(9) LOCATION OF WELL by legal description:

County Malhuer Latitude ____ Longitude ____

Township 16 S. N or S. Range 43 E. E or W. WM.

Section 7 N.W. ¼ N.W. ¼

Tax Lot ____ Lot ____ Block ____ Subdivision ____

Street Address of Well (or nearest address) 14 th. ave. W.

Jamieson Or. 97909

(10) STATIC WATER LEVEL:

215 ft. below land surface. Date 7-15-93

Artesian pressure ____ lb. per square inch. Date ____

(11) WATER BEARING ZONES:

Depth at which water was first found 285

From	To	Estimated Flow Rate	SWL
285	360	500 g.p.m.	215

(12) WELL LOG:

Ground elevation ____

Material	From	To	SWL
Soil	0	4	
Brn. clay	4	7	
Brn.clay brn.gravel(large)	7	12	
Brn.clay	12	285	
Brn.clay brn.sand(fine)	285	340	215
Brn.sand(med)	340	360	215

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WATER RESOURCES DEPT.
SALEM, OREGON

Date started 6-20-93 Completed 8-10-93

(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 1309

Signed Robert L. Downs Date 9-3-93

ORIGINAL & FIRST COPY - WATER RESOURCES DEPARTMENT SECOND COPY - CONSTRUCTOR THIRD COPY - CUSTOMER 9809C 3/8

STATE OF OREGON

WATER WELL REPORT

(as required by ORS 537.765)

(START CARD) # 47695

(1) OWNER:

Well Number #19

Name Gum Creek Farms

Address 5070 S. Rd. K

City Vale Or. State Or. Zip 97918

(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 310 ft.

Explosives used Yes ☐ No ☒ Type Amount

HOLE Diameter	From	To	SEAL Material	From	To	Amount sacks or pounds
16	0	25	Bentonite	0	25	2100lbs.
12	25	310				

How was seal placed: Method ☐ A ☐ B ☐ C ☐ D ☐ E

☐ Other Dry

Backfill placed from ft. to ft. Material

Gravel placed from ft. to ft. Size of gravel

(6) CASING/LINER:

	Diameter	From	To	Gauge	Steel	Plastic	Welded	Threaded
Casing:	12	+1	283	.318	☒	☐	☒	☐
					☐	☐	☐	☐
					☐	☐	☐	☐
					☐	☐	☐	☐
Liner:					☐	☐	☐	☐
					☐	☐	☐	☐

Final location of shoe(s) 283

(7) PERFORATIONS/SCREENS:

☒ Perforations Method Torch

☐ Screens Type Material

From	To	Slot size	Number	Diameter	Tele/pipe size	Casing	Liner
123	283	1/8	3-96	0 12		☒	☐
						☐	☐
						☐	☐
						☐	☐
						☐	☐
						☐	☐

(8) WELL TESTS: Minimum testing time is 1 hour

☒ Pump ☐ Bailer ☐ Air ☐ Flowing Artesian

Yield gal/min	Drawdown	Drill stem at	Time
700	64		1 hr.

Temperature of water 68 Depth Artesian Flow Found

Was a water analysis done? no ☐ Yes By whom

Did any strata contain water not suitable for intended use? ☐ No ☐ Too little

☐ Salty ☐ Muddy ☐ Odor ☐ Colored ☐ Other

Depth of strata: 100 ft.

(9) LOCATION OF WELL by legal description:

County Malhuer Latitude Longitude

Township 16S S. N or S. Range 43 E. E or W. WM.

Section 7 S.W. ¼ N.W. ¼

Tax Lot 900 Lot Block Subdivision

Street Address of Well (or nearest address) 14 th. Ave. N

Jamieson Or. 97909

(10) STATIC WATER LEVEL:

86 ft. below land surface. Date 3-12-96

Artesian pressure lb. per square inch. Date

(11) WATER BEARING ZONES:

Depth at which water was first found 125 ft.

From	To	Estimated Flow Rate	SWL
210	310 +	700 +	86

(12) WELL LOG:

Ground elevation

Material	From	To	SWL
Soil	0	6	
Brn. clay	6	8	
Brn.clay-brn.gravel(large)	8	12	
Brn.&blk.gravel(large)	12	16	
Brn. clay	16	125	
Brn. clay-brn.sand(med.)	125	160	86
Blue clay	160	210	86
Blue clay-blue sand(fine)	210	310	86

RECEIVED

FEB 18 1997

WATER RESOURCES DEPT.

SALEM, OREGON

Date started 3-4-96 Completed 4-12-96

(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. 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 130

Signed Date 4-27-9

ORIGINAL & FIRST COPY - WATER RESOURCES DEPARTMENT SECOND COPY - CONSTRUCTOR THIRD COPY - CUSTOMER 9809

W-17048

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

well # 20

Instructions for completing this report are on the last page of this form.

(START CARD) # _____

(1) OWNER: Well Number L06224

Name Gum Creek Farms Inc.

Address 5070 S. Rd. K

City Vale State Or. Zip 97918

(2) TYPE OF WORK

[X] New Well [ ] Deepening [ ] Alteration (repair/recondition) [ ] Abandonment

(3) DRILL METHOD:

[ ] Rotary Air [ ] Rotary Mud [X] Cable [ ] Auger

[ ] Other _____

(4) PROPOSED USE:

[ ] Domestic [ ] Community [ ] Industrial [X] Irrigation

[ ] Thermal [ ] Injection [ ] Livestock [ ] Other _____

(5) BORE HOLE CONSTRUCTION:

Special Construction approval [ ] Yes [X] No Depth of Completed Well _____ ft.

Explosives used [ ] Yes [X] No Type _____ Amount _____

HOLE Diameter	From	To	SEAL Material	From	To	Sacks or pounds
20	0	19	Bentonite	0	19	38 sacks
16	19	310				

How was seal placed: Method [ ] A [ ] B [ ] C [ ] D [ ] E

[ ] Other Dry

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:	16	+1	19	318	[X]	[ ]	[X]	[ ]
					[ ]	[ ]	[ ]	[ ]
					[ ]	[ ]	[ ]	[ ]
					[ ]	[ ]	[ ]	[ ]
Liner:					[ ]	[ ]	[ ]	[ ]
					[ ]	[ ]	[ ]	[ ]

Final location of shoe(s) 19 ft.

(7) PERFORATIONS/SCREENS:

[ ] Perforations Method _____

[ ] Screens Type _____ Material _____

From	To	Slot size	Number	Diameter	Tele/pipe size	Casing	Liner
						[ ]	[ ]
						[ ]	[ ]
						[ ]	[ ]
						[ ]	[ ]
						[ ]	[ ]

(8) WELL TESTS: Minimum testing time is 1 hour

[X] Pump [ ] Bailer [ ] Air [ ] Flowing Artesian

Yield gal/min	Drawdown	Drill stem at	Time
			1 hr.
800	70 ft.		12 hr.

Temperature of water 78° Depth Artesian Flow Found _____

Was a water analysis done? [ ] Yes By whom _____

Did any strata contain water not suitable for intended use? No [ ] Too little

[ ] Salty [ ] Muddy [ ] Odor [ ] Colored [ ] Other _____

Depth of strata: _____

(9) LOCATION OF WELL by legal description:

County Malheur Latitude _____ Longitude _____

Township 16 s. N or S Range 43 e. E or W. WM.

Section 7 S.W. 1/4 N.W. 1/4

Tax Lot 900 Lot _____ Block _____ Subdivision _____

Street Address of Well (or nearest address) 14 th. Ave.

(10) STATIC WATER LEVEL:

140 ft. below land surface. Date 10-30-96

Artesian pressure _____ lb. per square inch. Date _____

(11) WATER BEARING ZONES:

Depth at which water was first found 140 ft.

From	To	Estimated Flow Rate	SWL
250	310	1000 g.p.m.	108

(12) WELL LOG:

Ground Elevation _____

Material	From	To	SWL
Soil	0	6	
Brn. clay	6	140	
Blue clay	140	250	108
Blue clay-blue sand(fine)	250	310	108

RECEIVED
FEB 18 1997
WATER RESOURCES DEPT.
SALEM, OREGON

Date started 10-28-96 Completed 11-19-96

(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 water supply well construction standards. Materials used and information reported above are true to the best of 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. All work performed during this time is in compliance with Oregon water supply well construction standards. This report is true to the best of my knowledge and belief.

WWC Number 1308

Signed Herbert H. Bowman Date 12-3-96

ORIGINAL & FIRST COPY-WATER RESOURCES DEPARTMENT SECOND COPY-CONSTRUCTOR THIRD COPY-CUSTOMER

PFO CHECKLIST

Application #: G 14461

Basin: Malheur -10 WAB: _____

County Malheur Township 16S Range 43E Section 5-D 17,18 1/4 1/4 _____

1. Is the file complete by the Completeness Checklist? (Y) / N
2. Shortcomings (items needed before a permit and/or FO can be issued) (Y) / N cleaner maps
3. Check file for indicators that the process **should not** continue until a later date (ie - protest, letter to file indicating hold, or other)
4. Groundwater Review A B (C) D River/Stream Name _____ Conditions 7B, 7E
   a. Groundwater Availability A B (C)
   b. Is second groundwater review necessary? (comments) (Y) / N Done (existing gw rights)
   c. Is HB 1033 review complete? (Y) / N
5. If source is groundwater, is the well located in a groundwater limited area? (If applicable, include map with POD) Y / (N)
6. Is use from a B.O.R. project? Y / (N) Contract in file? Y / N Contract # _____
7. Is the use allowed by the Basin Program? (Y) / N Limited? Y / (N) _____
8. Water Availability Data **OK / REDONE / (NA)** (50% before July 17, 1992; 80% live flow & 50% storage after July 17, 1992)
9. Is the source withdrawn or limited by statute or Department withdrawal order? Y / (N) _____
10. Is the Proposed Use located in or above a Scenic Waterway? Y / (N) _____
11. Division 33: Above Bonn (after July 17, 1992) Y / N / (NA)
    Below Bonn (after April 8, 1994; June 3, 1994) Y / N / (NA)
    Statewide - (in shaded areas on T, E, and S Map - after June 3, 1994) Y / N / (NA)
12. Have conflicts been identified, verified and/or addressed? (Y) / N Permit G-14059 & see attached
    Pri: March -> Oct
13. Rate 1/80 Duty 3.0 Irrigation Season Supp: Feb 15 to Sept 1 (Will CV gw decree) (requested April 1 to Oct 31)
14. Period of Allowed Use Pri: April -> Oct / Supp April to Sept 1
15. Allowed Rate of Use 43 cfs, being 0.46 for supp & 3.84 cfs pri
    requesting 7.9 cfs, being 1.35 well 15, 1.22 well 18, 1.43 well 17, 1.79 well 19, 2.11 well 20
16. Is the use **Small** (≤0.1cfs, ≤9.2AF), **Medium** (>0.1 or <1.5cfs, >9.2 or <100AF) or **Large** (≥1.5 cfs, ≥100 AF)?
17. Conditions 7B, 7E, 35
18. IR Public Notice Date 7-8-97
19. Documents used in determination are attached and highlighted
    See also I.R. checklist
20. Spell Check
    Supp. 38.92 ac (approx only) × 1/80 = 0.48 cfs
21. Check for Accuracy
    Pri. 307.48 ac (approx) × 1/80 = 3.84 cfs
    ~~4.30~~ 4.32
22. Final PFO report hard copy check (format, margins, etc.)
23. Final PFO has been saved to m:\groups\wr\pfo\done\week#\application #
24. Fill out PFO CC List (don't forget to check for other property owners)
    a. Re-notify Water Availability? (Rate, Duty and Period of Allowed Use changes) (Y) / N

has existing gw rights for FOH rate on approx 286.9 ac & according to gw section these are all probably the same source - therefore, supp irrig of these lands is not allowed

Name: Laura Sweetnam Date: 10-15-97

Revised 8/13/97

cc: Water Rights Technical Staff.

SEASONS
Q
PRI/SUPP

STATE OF OREGON

INTEROFFICE MEMO

WATER RESOURCES DEPARTMENT
NORTHWEST REGION

May 16, 1995

TO: Steve Applegate, ACT, Region Managers, Watermasters

FROM: Tom Paul TP

SUBJECT: Irrigation Seasons for New Groundwater Permits

This memo is continuation of discussions dating from 1993. The issues still exist. I would like to final this memo and provide it to WRD staff. For field staff, this should be in the form of a new section to be included in the Enforcement Manual. Please review the discussion regarding irrigation seasons for groundwater and return any comments to me. If you are comfortable with what is written, then I would propose forwarding this to ACT for their consideration.

Watermasters have raised questions regarding how irrigation seasons for groundwater are determined. The questions are prompted as watermasters received and reviewed water right application technical reviews.

I would propose dividing groundwater sources into two different categories:

> Groundwater determined not to be hydraulically connected to surface water, and
>
> Groundwater determined to be hydraulically connected to and which has the potential to cause substantial interference with surface water.

This is further complicated by groundwater which is requested to supplement an existing water right.

Technical reviews and resulting water use permits now contain beginning and ending dates for the irrigation season. Irrigation season dates should be consistent within each Basin. I have noticed that technical reviews and resulting groundwater permits in the same basin contain different irrigation seasons. Consistency in assigning irrigation seasons will save watermasters time when regulating water use.

Following is my recommendation for selecting the appropriate irrigation season:

GROUNDWATER DETERMINED NOT TO BE HYDRAULICALLY CONNECTED TO SURFACE

A

WATER

The irrigation season for all groundwater determined not to be hydraulically connected, should be March 1 through October 31 for primary groundwater use permits.

GROUNDWATER DETERMINED TO BE HYDRAULICALLY CONNECTED TO SURFACE WATER

The irrigation season for groundwater should match that established in the basin program for surface water. An irrigation season of March 1 through October 31 should be used if a season is not identified in the basin program. This only applies if the surface water stream has not been adjudicated.

The irrigation season for groundwater produced in areas which have been adjudicated should match the surface water season established by the courts. In adjudicated areas where the courts did not state a season, an irrigation season of March 1 through October 31 should apply.

In all cases where the groundwater is to be a supplemental source, the irrigation season should match the season of the primary water right.

The assigned irrigation season may be more restrictive depending on water availability and public interest determinations.

It is not uncommon to find that the courts, through the adjudication process, established unusual and restrictive seasons based on stream flows and historic surface water availability in the area. In these situations, groundwater water use permits should be issued to allow both primary and supplemental water use. The supplemental season would match that of the right being supplemented and the primary to authorize water use during the water use period not allowed for surface water between March 1 and October 31.

Water right applications requesting to use groundwater outside of the established irrigation seasons should be considered. Permits for out of season use should only be issued if the need is justified and water is available. Groundwater use outside the usual season is to be described as primary, as depicted above.

gwis

B

Mailing List for IR Copies

Application #G-14461 IR Date: June 27, 1997

Original mailed to:

Applicant: GUM CREEK FARMS INC.; HEID, WILLIAM, 5070 SOUTH RD K, VALE, OREGON 97918

Copies Mailed
By: JCB
(SUPPORT STAFF)
on: 6/27/97
(DATE)

Copies sent to:
1. WRD - File # G-14461
2. WRD - Water Availability: Ken Stahr

IR, Map, and Fact Sheet Copies sent to:
3. WRD - Watermaster # District 9
4. WRD - Regional Manager (not Bob Main): ER
5. ODFW District Biologist: WAYNE BOWERS (MALHEUR County)

Copies sent to Other Interested Persons *(CWRE, Agent, Well Driller, Commenter, etc.)*

6. _____

7. _____

8. _____

9. _____

10. _____

11. _____

12. _____

13. _____

M:\CM\MACROS\B-SERIES\COPYSHT.IR

ID# CE

APPLICATION FACT SHEET

Mail to: Applicant, Watermaster, District Biologist (ODFW)
If necessary, also mail to : Regional Water quality manager (DEQ), and DOA

Application File Number: G-14461

Applicant: GUM CREEK FARMS INC.; HEID, WILLIAM

County: MALHEUR

Watermaster: District 9

Priority Date: February 18, 1997

Source: FIVE WELLS IN MALHEUR RIVER BASIN

Use: PRIMARY IRRIGATION OF 380.2 ACRES AND SUPPLEMENTAL IRRIGATION OF 253.5 ACRES

Quantity: 7.9 CUBIC FEET PER SECOND, BEING 1.35 CFS FROM WELL 15, 1.43 CFS FROM WELL 17, 1.22 CFS FROM WELL 18, 1.79 CFS FROM WELL 19 AND 2.11 CFS FROM WELL 20

Basin Name & Number: Malheur, #10

Stream Index Reference: Volume 2 WILLOW CR MISC

Point of Diversion Location: NWSW, SECTION 7, T16S, R43E, W.M.; 2655 FEET SOUTH & 116 FEET EAST FROM NW CORNER, SECTION 7 NWSW, SECTION 7, T16S, R43E, W.M.; 2828 FEET SOUTH & 1097 FEET EAST FROM NW CORNER, SECTION 7 NWNW, SECTION 7, T16S, R43E, W.M.; 769 FEET SOUTH & 32 FEET EAST FROM NW CORNER, SECTION 7 SWNW, SECTION 7, T16S, R43E, W.M.; 2286 FEET SOUTH & 24 FEET EAST FROM NW CORNER, SECTION 7 SWNW, SECTION 7, T16S, R43E, W.M.; 1588 FEET SOUTH & 50 FEET EAST FROM NW CORNER, SECTION 7

Place of Use: SWSE 1.3 ACRES SESE 7.5 ACRES, SECTION 6 NENE 14.0 ACRES SWNW 14.0 ACRES SWNW 3.0 ACRES SENW 6.3 ACRES NESW 28.0 ACRES NWSW 2.2 ACRES NWSW 12.8 ACRES SWSW 2.0 ACRES SESW 2.0 ACRES SESE 7.6 ACRES, SECTION 7 NENW 1.7 ACRES NWNW 28.0 ACRES SWNW 11.1 ACRES SENW 1.6 ACRES NESW 36.2 ACRES NWSW 3.5 ACRES SWSW 38.0 ACRES SESW 1.5 ACRES NESE 1.7 ACRES NWSE 1.5 ACRES SWSE 35.7 ACRES SESE 20.0 ACRES SESE 16.2 ACRES, SECTION 8 NENE 1.0 ACRES NENE 14.3 ACRES NENE 20.0 ACRES NWNE 38.0 ACRES NWNE 37.6 ACRES SWNE 15.9 ACRES SWNE 1.9 ACRES SENE 1.1 ACRES NENW 15.5 ACRES NENW 1.9 ACRES NWNW 3.0 ACRES SWNW 4.2 ACRES SENW 4.8 ACRES NESW 2.9 ACRES NESW 16.6 ACRES NWSW 40.0 ACRES SWSW 38.5 ACRES SESW 1.1 ACRES SESW 35.6 ACRES NESE 1.0 ACRES SWSE 4.4 ACRES SESE 4.3 ACRES, SECTION 17 NESE 18.3 ACRES SESE 14.4 ACRES, SECTION 18, TOWNSHIP 16 SOUTH, RANGE 43 EAST, W.M.

14 DAY STOP PROCESSING DEADLINE DATE: Friday, July 11, 1997

PUBLIC NOTICE DATE: Tuesday, July 15, 1997

30 DAY COMMENT DEADLINE DATE: Thursday, August 14, 1997

IR CHECKLIST

Application #: G-14461 Vol ____ Subbasin _____

Basin: _____ WAB: _____ POU-WAB _____

Township 16 SOUTH Range 43 EAST Section 6, 7, 8, 17, 18 1/4 1/4 _____

✓ 1. Completeness checklist verified. (Y) / N or No Checklist — BUT NEED LEGAL

✓ 2. Indicators that the process **should not** continue (ie - protest, items missing, letter to file indicating hold, or other) Y / (N)

✓ 3. Groundwater review A B (C) D 7B, 7E

✓ a. Is the well located in a groundwater limited area? Y / N _____

✓ 4. SWW Y / (N) Triage Y / N conditions/restrictions 3C Y / N _____

✓ 5. Basin Program limitations? Y / (N) – NO CLASSIFICATION LIMITS IF WATER IS AVAIL.

✓ 6. Withdrawn? Y / (N) season allowed _____

N/A 7. Basin Maps have been checked. Y / N The River Mile is _____

✓ 8. Water Availability (50% < July 17, 1992 ** 80% [50% storage] > July 17, 1992) (NA) _____

✓ 9. Rate/Duty/Season 1/80 ~~3.0~~ ~~3/1-10/31~~ "Wherever necessary ..."

✓ 10. Use IRR-633.7 Ac Period of Allowed Use 4/1-10/31 (requested)

✓ 11. Priority Date(s) 2/18/97

✓ 12. B.O.R. project Y / (N) contract # _____

✓ 13. ~~TMDL Basin? Y / N (Tualatin, Yamhill, Pudding)~~ DIVISION 33 Y / (N) New or Old? Map Date _____

✓ 14. Conflicts (Y) / N CONFLICT w/ per G-10459

✓ 15. Conditions? (BOR, GW, other) (Y) / N 7B, 7E

✓ 16. Land use approval (OK'd) needs approval county notified NA

✓ 17. Watermaster Dist: (1 2 16 18 - NWR) (3 4 5 - NCR) (6 8 (9) 10 - (ER)) (11 12 17 - SCR) (14 15 19 - SWR)

✓ 18. Letter will be (Good) Limited Bad Bad w/IRshort because _____

* NEED LEGAL DESC. req. 7.9 CFS, 633.7 AC

* CONFLICT - area primary, well #18, Sec 7 4/1-10/31

Name: _____ Date: _____

save to m:\t\ir\sent\app#.w51

1

T.16S. R43E.

APPLICATION FOR PERMIT 1" = 1320'

IN NAME OF

GUM CREEK FARMS, INC.

OREGON WATER RESOURCES PLAT CARD: Township 16.00 S Range 43.00 E SECTION 6 6/11/1997

APP. NO. / PERMIT NO.	CERT NO.		GOV'T LOT DLC	NE NE	NE NW	NE SW	NE SE	NW NE	NW NW	NW SW	NW SE	SW NE	SW NW	SW SW	SW SE	SE NE	SE NW	SE SW	SE SE
T 4416	62423	V																2.00 (IR)	7.00 (IR)
D 7312																			
G 5633	51778	V										10.10 (IR) (S)				35.10 (IR) (S)	32.80 (IR) (S)	3.80 (IR) (S)	16.80 (IR) (S)
G 6719																			
G 5634	51777	V										10.10 (IR)				35.10 (IR)	32.80 (IR)	3.80 (IR)	16.80 (IR)
G 6720																			
G 5637	52218	V																1.50 (IR)	
G 6723																			
G 8860	58992	V	LOT 1	19.60 (IR)															
G 8306			LOT 2		40.00 (IR)														
								30.60 (IR)		14.40 (IR)									
			LOT 3			32.10 (IR)	23.70 (IR)									4.70 (IR)			
G 9468	58993	V		19.60 (IR) (S)		32.10 (IR) (S)	23.70 (IR) (S)												
G 9013			LOT 1					30.60 (IR) (S)								4.70 (IR) (S)			
			LOT 3		40.00 (IR) (S)					14.40 (IR) (S)									
G 10144	0	V	APPLICATION MAP SHOWS PRIMARY FOR PIVOT, G-10144 ADD. MAP SHOWS WELL #16												5.00 (IR)			5.00 (IR)	
G 10459																			
G 10146	0	V										2.00 (IR)				15.00 (IR)	6.00 (IR)		
G 10461												17.00 (IR)							

NCR

NCR

NCR

NCR

CONFLICT

OK

APP. NO. / PERMIT NO.	CERT NO.		GOV'T LOT DLC	NE NE	NE NW	NE SW	NE SE	NW NE	NW NW	NW SW	NW SE	SW NE	SW NW	SW SW	SW SE	SE NE	SE NW	SE SW	SE SE
S 27611	26616	V																	5.00 (IR)
S 21750																			

OREGON WATER RESOURCES PLAT CARD: Township 16.00 S Range 43.00 E SECTION 7 6/11/1997

NCR

APP. NO. / PERMIT NO.	CERT NO.		GOV'T LOT DLC	NE NE	NE NW	NE SW	NE SE	NW NE	NW NW	NW SW	NW SE	SW NE	SW NW	SW SW	SW SE	SE NE	SE NW	SE SW	SE SE
G 5637	52218	V		0.20 (IR)			6.40 (IR)												
G 6723																			

CONFLICT

APP. NO. / PERMIT NO.	CERT NO.		GOV'T LOT DLC	NE NE	NE NW	NE SW	NE SE	NW NE	NW NW	NW SW	NW SE	SW NE	SW NW	SW SW	SW SE	SE NE	SE NW	SE SW	SE SE
G 10144	0	V			36.00 (IR)	16.00 (IR)		34.00 (IR)			14.00 (IR)								
G 10459																			

OK

APP. NO. / PERMIT NO.	CERT NO.		GOV'T LOT DLC	NE NE	NE NW	NE SW	NE SE	NW NE	NW NW	NW SW	NW SE	SW NE	SW NW	SW SW	SW SE	SE NE	SE NW	SE SW	SE SE
S 27611	26616	V		18.20 (IR)			1.20 (IR)												
S 21750				8.00 (IR) (S)			(S)												

OREGON WATER RESOURCES PLAT CARD: Township 16.00 S Range 43.00 E SECTION 8 6/11/1997

OK

APP. NO. / PERMIT NO.	CERT NO.		GOV'T LOT DLC	NE NE	NE NW	NE SW	NE SE	NW NE	NW NW	NW SW	NW SE	SW NE	SW NW	SW SW	SW SE	SE NE	SE NW	SE SW	SE SE
G 3224	51776	V								10.50 (IR)	1.00 (IR)	36.20 (IR)	0.50 (IR)		1.50 (IR) 23.10 (IR)	1.70 (IR) 27.60 (IR)	1.50 (IR) 32.70 (IR)	35.70 (IR) 4.30 (IR)	36.20 (IR) 3.80 (IR)
G 3167																			

NCR

APP. NO. / PERMIT NO.	CERT NO.		GOV'T LOT DLC	NE NE	NE NW	NE SW	NE SE	NW NE	NW NW	NW SW	NW SE	SW NE	SW NW	SW SW	SW SE	SE NE	SE NW	SE SW	SE SE
G 5633	51778	V		3.10 (IR) (S)	37.00 (IR) (S)	3.40 (IR) (S)		23.00 (IR) (S)	3.60 (IR) (S)										
G 6719																			

NCR

APP. NO. / PERMIT NO.	CERT NO.		GOV'T LOT DLC	NE NE	NE NW	NE SW	NE SE	NW NE	NW NW	NW SW	NW SE	SW NE	SW NW	SW SW	SW SE	SE NE	SE NW	SE SW	SE SE
G 5634	51777	V		3.10 (IR)	37.00 (IR)	3.40 (IR)		23.00 (IR)	3.60 (IR)										
G 6720																			

OK

APP. NO. / PERMIT NO.	CERT NO.		GOV'T LOT DLC	NE NE	NE NW	NE SW	NE SE	NW NE	NW NW	NW SW	NW SE	SW NE	SW NW	SW SW	SW SE	SE NE	SE NW	SE SW	SE SE
G 5635	51780	V	UNDERLYING RIGHT									36.20 (IR) (S)	0.50 (IR) (S)		24.60 (IR) (S)	29.30 (IR) (S)	34.20 (IR) (S)	40.00 (IR) (S)	40.00 (IR) (S)
G 6721																			

NCR

APP. NO. / PERMIT NO.	CERT NO.		GOV'T LOT DLC	NE NE	NE NW	NE SW	NE SE	NW NE	NW NW	NW SW	NW SE	SW NE	SW NW	SW SW	SW SE	SE NE	SE NW	SE SW	SE SE
G 5636	47836	V														8.90 (IR) (S)	6.00 (IR) (S)		
G 6722																			

NCR

G 5637	52218	V									10.50 (IR) (S)	1.00 (IR) (S)								
G 6723																				
G 8655	60414	V											25.60 (IR) (S)			25.20 (IR) (S)	17.20 (IR) (S)	42.00 (IR) (S)	42.40 (IR) (S)	38.40 (IR) (S)
G 8357	suppl.																			
G 10145	60415	V		17.20 (IR)	0.40 (IR)	2.00 (IR)	14.00 (IR)													
G 10460																				
G 10146	0	V		3.00 (IR)	4.00 (IR)															
G 10461																				
S 27611	26616	V				5.30 (IR) (S)	2.90 (IR) (S)	6.80 (IR)	10.80 (IR) (S)	3.80 (IR) (S)	24.00 (IR) (S)									
S 21750						1.60 (IR)			11.20 (IR)	12.20 (IR)	9.00 (IR)									
U 228	19808	V				3.50 (IR) (S)	3.50 (IR) (S)										8.90 (IR) (S)	6.00 (IR) (S)		
U 209						15.10 (IR)	2.90 (IR)													
U 229	19809	V				1.40 (IR)			10.80 (IR)	3.80 (IR)	24.00 (IR)									
U 210																				

OREGON WATER RESOURCES PLAT CARD: Township 16.00 S Range 43.00 E SECTION 17 6/11/1997

APP. NO. / PERMIT NO.	CERT NO.		GOV'T LOT DLC	NE				NW				SW				SE			
				NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE
G 3224	51776	V		0.10 (IR)	1.00 (IR)	14.20 (IR)	3.90 (IR)	1.10 (IR)											
G 3167				34.30 (IR)	37.60 (IR)	1.90 (IR)	1.10 (IR)	1.90 (IR)											
G 5635	51780	V		34.40 (IR) (S)	38.60 (IR) (S)	16.10 (IR) (S)	5.00 (IR) (S)	3.00 (IR) (S)											
G 6721																			

NCR	G 5639 G 6725	60413	V				4.80 (IR) (S)	4.00 (IR) (S)									35.20 (IR) (S)	38.80 (IR) (S)	26.80 (IR) (S)	22.80 (IR) (S)
OK	G 8655 G 8357	60414	V		34.40 (IR) (S)	38.80 (IR) (S)	24.80 (IR) (S)	8.80 (IR) (S)	3.60 (IR) (S)								35.20 (IR) (S)	38.80 (IR) (S)	26.80 (IR) (S)	22.80 (IR) (S)
OK	G 10147 G 10462	60416	V				4.80 (IR)	4.00 (IR)									35.20 (IR)	38.80 (IR)	26.80 (IR)	22.80 (IR)

NO RECORDS FOR SECTION 18

STATE OF OREGON

County of MALHEUR

PERMIT TO APPROPRIATE THE PUBLIC WATERS

This is to certify that I have examined APPLICATION G-10144 and do hereby grant the same SUBJECT TO EXISTING RIGHTS and the following limitations and conditions:

This permit is issued to Gum Creek Farms, c/o Bill Heid, of Route 2, Box 174, Vale, Oregon 97918, phone 473-3324, for use of the waters from Well 16,

for the PURPOSE of irrigation of 110.0 acres

Full rate & duty

that the PRIORITY OF THE RIGHT dates from February 5, 1981

and is limited to the amount of water which can be applied to beneficial use and shall not exceed 1.38 cubic foot per second

measured at the point of diversion from the well , or its equivalent in case of rotation with other water users.

The well is to be LOCATED: North 56 degrees 10 minutes West from the Southeast Corner of Section 6 a distance of 1840 feet, being within the SW 1/4 SE 1/4 of Section 6, Township 16 South, Range 43 East, WM, in the County of Malheur.

A description of the PLACE OF USE under the permit, and to which such right is appurtenant, is as follows:

Township 16 South, Range 43 East, WM	Section 6	SW 1/4 SE 1/4	5.0 acres
		SE 1/4 SW 1/4	5.0 acres
	Section 7	NW 1/4 NE 1/4	36.0 acres
		NE 1/4 NW 1/4	34.0 acres
		SW 1/4 NE 1/4	16.0 acres
		SE 1/4 NW 1/4	14.0 acres

The AMOUNT OF WATER used for irrigation, together with the amount secured under any other right existing for the same lands shall be limited to 1/80 of one cubic foot per second per acre, and shall be further limited to a diversion of not to exceed 3.0 acre-feet per acre for each acre irrigated during the irrigation season of each year, and shall be further limited to appropriation of water only to the extent that it does not impair or substantially interfere with existing surface water rights of others, and shall conform to such reasonable rotation system as may be ordered by the proper state officer.

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

Actual construction work shall begin on or before February 27, 1986 , and shall thereafter be prosecuted with reasonable diligence and be completed on or before October 1, 1986 .

Complete application of the water to the proposed use shall be made on or before October 1, 1987 .

Witness my hand this 27th day of February , 1985 .

/s/ WILLIAM H. YOUNG
WATER RESOURCES DIRECTOR

This permit is for the beneficial use of water. 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 that the land use you propose may not be allowed if it is not in keeping with the goals and the acknowledged plan. Your city or county planning agency can advise you about the land-use plan in your area.

APPLICATION G-10144 PERMIT G10459

RECORDED. See Misc. Rec., Vol. 7 Page 3616 RECORDED. See Misc. Rec., Vol. 7 Page 3728

February 28, 1997

OREGON WATER RESOURCES DEPARTMENT
ADMINISTRATIVE RULES
CHAPTER 690
DIVISION 510
MALHEUR BASIN PROGRAM

Classifications

690-510-010 (1) The maximum economic development of this state, the attainment of the highest and best use of the waters of the Malheur Basin, and the attainment of an integrated and coordinated program for the benefit of the state as a whole will be furthered through utilization of the aforementioned waters only for domestic, livestock, municipal, irrigation, power development, industrial, mining, recreation, wildlife, and fish life uses, and the waters of the Malheur Basin are hereby so classified with the following exceptions:

(a) The maximum economic development of this state, the attainment of the highest and best use of the waters of the natural lakes of the Malheur Basin, and the attainment of an integrated and coordinated program for the benefit of the state as a whole will be furthered through utilization of the aforementioned waters only for domestic, livestock, irrigation of lawn or noncommercial garden not to exceed one-half acre in area, power development not to exceed 7 1/2 theoretical horsepower, recreation, wildlife, and fish life uses, and the waters of the natural lakes of the Malheur Basin are hereby so classified.

(b) Stored water may be used for any beneficial purpose.

(c) Storage, of up to 1000 acre-feet of water in the Malheur Basin, for domestic or livestock purposes authorized under water rights with priority dates after November 6, 1992, shall be exempt from regulation for storage of water reserved under OAR 690-510-110 through 120.

(d) Storage of water is a beneficial use in the Malheur Basin.

(2) The maximum economic development of this state, the attainment of the highest and best use of 1,454,000 acre-feet annually of natural flows of the Snake River, and the attainment of an integrated and coordinated program for the benefit of the state as a whole will be furthered through utilization of the aforementioned waters only for domestic, livestock, municipal, and irrigation uses, and the 1,454,000 acre-feet annually of natural flows of the Snake River are hereby so classified.

(3) Structures or works for the utilization of the waters in accordance with the aforementioned classifications are also declared to be prejudicial to the public interest unless planned, constructed, and operated in conformity with applicable provisions of ORS 536.310 and any such structures or works are further declared to be prejudicial to the public interest which do not give cognizance to the multiple-purpose concept.

Note: These rules were filed with the Office of the Secretary of State and took effect on February 28, 1997. The rules are subject to non-substantive modifications such as renumbering and correction of typographical errors pursuant to ORS 183.360 (2)(a) when published by the Secretary of State.

John Borg

Oregon

WATER
RESOURCES
DEPARTMENT

NOTE TO LOCAL GOVERNMENTS

The person presenting the attached request for land use information is applying for a water right. The Water Resources Department (WRD) requires its applicants to obtain land use information to be sure water rights do not result in land uses that would violate your comprehensive plan.

WRD will not accept applications which are not accompanied by this completed land use form or the signed, dated receipt stub detached from the bottom of the land use information form.

You will receive notice once the applicant formally submits his or her request to WRD. The notice will give more detailed information about WRD's water rights process and comment opportunities. If you give the applicant the receipt stub in lieu of completing the form, you will have 30 days from the date of the notice mentioned above to complete the form and return it to WRD. If no land use information is received from you within that 30 day period, WRD may presume the land use associated with the proposed water right is compatible with your comprehensive plan.

Your attention to this request for information is greatly appreciated by both the applicant and WRD. If you have questions concerning the form, please contact WRD at 378-3739.

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

Planning Official Initials: _____

Description of Water Use

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

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

Applicant Name: Gum Creek Farms, Inc.
Address: 5070 South Rd. K
Vale, OR 97918
Phone: (541) 473-3324

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

- [X] Irrigation (crop type, golf course, nursery or greenhouse): Field crop, Hay.
- [ ] 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): _____

Indicate sources for the proposed water use below:	Indicate the estimated quantity of water the use will require.
[ ] Surface Water Name sources _____ _____ _____	7.9 cfs Cubic feet per second. _____ Gallons per minute. _____ Acre-Feet
[ ] Reservoir or pond	
[X] Ground Water	

Water Resources Department, 3850 Portland Rd. NE, Salem, OR 97310
Phone: 378-3671

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

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

Applicant's Name: Gum Creek Farms, Inc.
Address: 5070 South Rd. K
City: Vale State: OR Zip: 97918 Day Phone: (541) 473-3324

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.

(CHECK ALL THAT APPLY)

TAX LOT LOCAL ID #	PLAN DESIGNATION/ZONING (e.g. Rural Residential/RR-5)	WATER DIVERTED	WATER CONVEYED	WATER USE
900-16438	ER4	7.90 cfs	7.11 cfs	7.11 cfs
2500-16438	ER4	0	0.24 cfs	.24 cfs
2401-16438	ER4	0	0.43	.43 cfs
2400-16438	ER4	0	0.12	.12 cfs

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

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

= =

For Local Government Use Only

Local planning officials are to complete the remainder of this form. If it cannot be completed while the applicant waits, sign and detach the receipt as instructed below. You will receive notice when the applicant's water right request is filed with the Water Resources Department (WRD). You will have 30 days from the notice date to return this completed land use form to WRD. If no land use information is received from you within that period, WRD may presume the land use associated with the proposed water right is compatible with your comprehensive plan.

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); MCC 6-3A-2. 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 on the reverse of this form. Note: **Please attach documentation of applicable local land use approvals which have already been obtained. (Record of Action plus accompanying findings is sufficient.)**

= =

Receipt for Request for Land Use Information

WRD Applicant Name: ____________________

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

City or County: ____________________
Staff Contact: ____________________ Phone: __________
Signature: ____________________ Date of Information Request: __________

(for Local Use Continued)

(CHECK THE BOX THAT APPLIES)

Type of Land Use Approval Needed (e.g. plan amendments, rezones, conditional use permits, etc.)	Cite Most Significant, Applicable Plan Policies & Ordinance Section References	Already Obtained	Already Denied	Being Pursued Satisfactorily

b) Please provide printed name and written signature.

Name: Jon D Beal Jon D Beal Date: 2-12-97

Title: Planning Director Phone: 541-473-5185

Signature: Jon D Beal

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.

Additional Comments:

Water Resources Department
158 12th NE
Salem, OR 97310
(503)378-3739

M: FORMS/LU.I

TO: LAURA SCHRADER
FROM: GUM CREEK FARMS 541 473-3135

SUBJECT: MAP UPDATES FOR APP. G-14461

FOLLOWING IS A COPY OF THE MAP I AM MAILING TODAY. WE HOPE THIS WILL WORK FOR YOU. CALL IF YOU HAVE QUESTIONS. BILL PUT A SHEET [redacted] WITH NOTES & EXPLANATIONS IN MAILED MAP.

Kenneth Jensen

Superseded

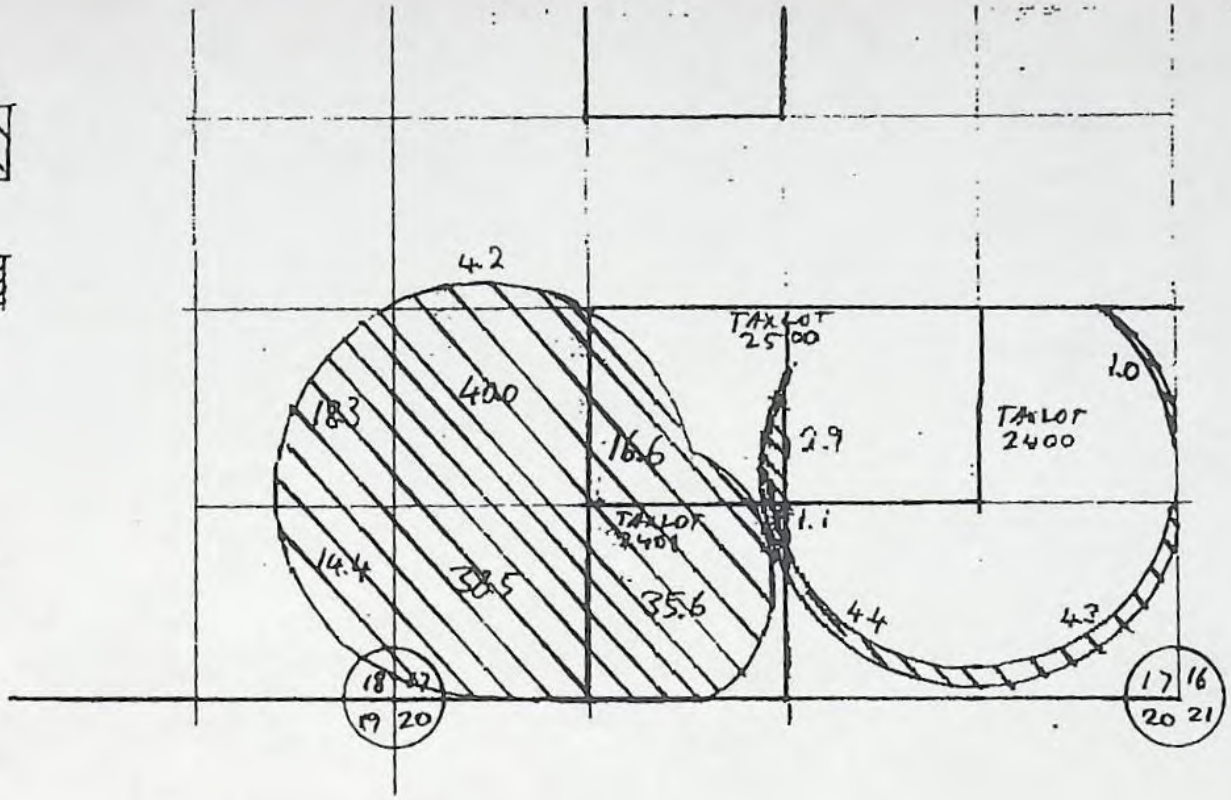
T16S R43E WM.

☎ 503 473 3135 KENNETH JENSEN P02

1

PRIMARY

SUPPLEMENTAL
TO CERT. 26616



4-7-98 REVISED MAP FOR APPLICATION G-14461 1"=1320'

11: NAME OF GUM CREEK FARMS INC.

BY KENNETH JENSEN

☎ 503 473 3135 KENNETH JENSEN P03

REVISED 4-7-98. Addendum to Application G-14461

SOURCE OF WATER: 5 wells, Well #'s 15,17,18,19,20.

PURPOSE OF USE: Primary irrigation of 351.5 acres, and supplemental irrigation of 73.2 acres.

MAXIMUM RATE: 5.31 cubic feet per second, being 1.39 cfs for primary irrigation and 0.92 cts for supplemental irrigation; Further limited to not more than 1.35 cfs from Well 15, 1.43 cfs from Well 17, 1.22 cfs from Well 18, 1.79 cfs from Well 19 and 2.11 cfs from well 20.

WELL # 15
Located in the NW 1/4 SW 1/4, Section 7, T16S, R43E, WM;
2655 feet South and 116' feet East from NW corner, Section 7

WELL # 17
Located in the NW 1/4 SW 1/4, Section 7, T16S, R43E, WM;
2828 feet South and 1097' feet East from NW corner, Section 7

WELL # 18
Located in the NW 1/4 NW 1/4, Section 7, T16S, R43E, WM;
769 feet South and 32' feet East from NW corner, Section 7

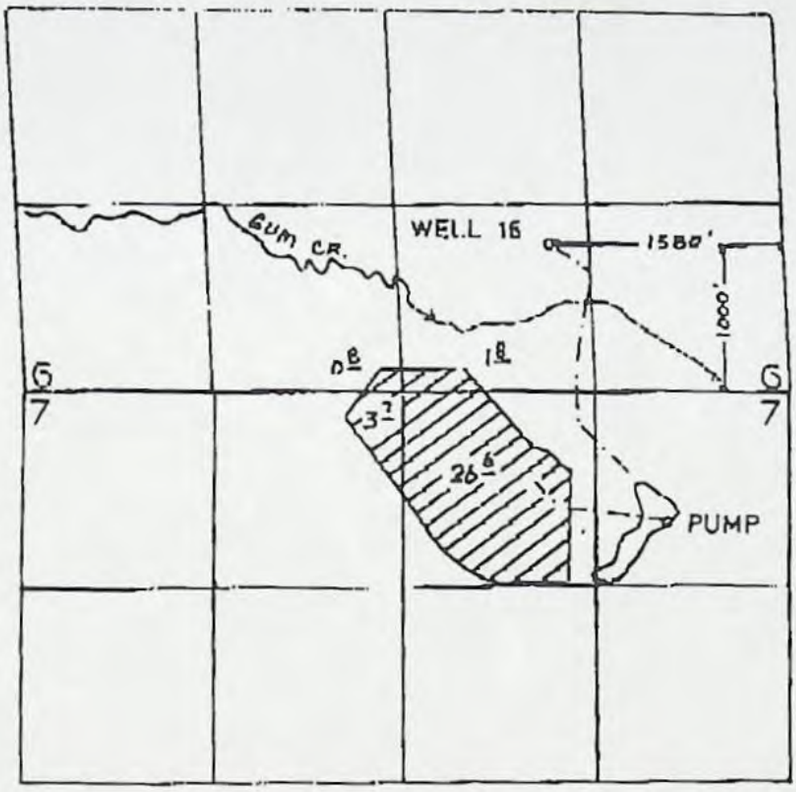
WELL # 19
Located in the SW 1/4 NW 1/4, Section 7, T16S, R43E, WM;
2286 feet South and 24' feet East from NW corner, Section 7

WELL # 20
Located in the SW 1/4 NW 1/4, Section 7, T16S, R43E, WM;
1588 feet South and 50' feet East from NW corner, Section 7

The place of use is located as follows.

	PRIMARY	SUPPLEMENTAL
SW 1/4 SE 1/4	0.4 ACRES	
SE 1/4 SE 1/4		5.0 ACRES
	SECTION 6	
NE 1/4 NE 1/4	1.0	26.2
NW 1/4 NE 1/4	11.4	
SW 1/4 NE 1/4	15.9	
SE 1/4 NE 1/4		1.2
NE 1/4 NW 1/4	12.2	
SE 1/4 NW 1/4	11.1	
SW 1/4 NW 1/4	17.0	
NE 1/4 SW 1/4	28.0	
NW 1/4 SW 1/4	15.1	
SW 1/4 SW 1/4	2.0	
SE 1/4 SW 1/4	2.0	
SE 1/4 SE 1/4	7.6	
	SECTION 7	
SW 1/4 NE 1/4		1.6
NE 1/4 NW 1/4		6.8
NW 1/4 NW 1/4		11.2
SW 1/4 NW 1/4		12.2
SE 1/4 NW 1/4	2.0	9.0
NW 1/4 SW 1/4	3.5	
SW 1/4 SW 1/4	38.0	
	SECTION 8	
NW 1/4 NW 1/4	3.0	
SW 1/4 NW 1/4	4.2	
NE 1/4 SW 1/4	19.5	
NW 1/4 SW 1/4	40.0	
SW 1/4 SW 1/4	38.5	
SE 1/4 SW 1/4	36.7	
NE 1/4 SE 1/4	1.0	
SW 1/4 SE 1/4	4.4	
SE 1/4 SE 1/4	4.3	
	SECTION 17	
NE 1/4 SE 1/4	18.3	
SE 1/4 SE 1/4	14.4	
	SECTION 18	

T. 16 S., R. 43 E., W.M.



N

1" = 1320'

PRELIMINARY

NOT FOR REVISION

FINAL PROOF SURVEY

UNDER

Application No. G-10144 Permit No. G10459
IN NAME OF

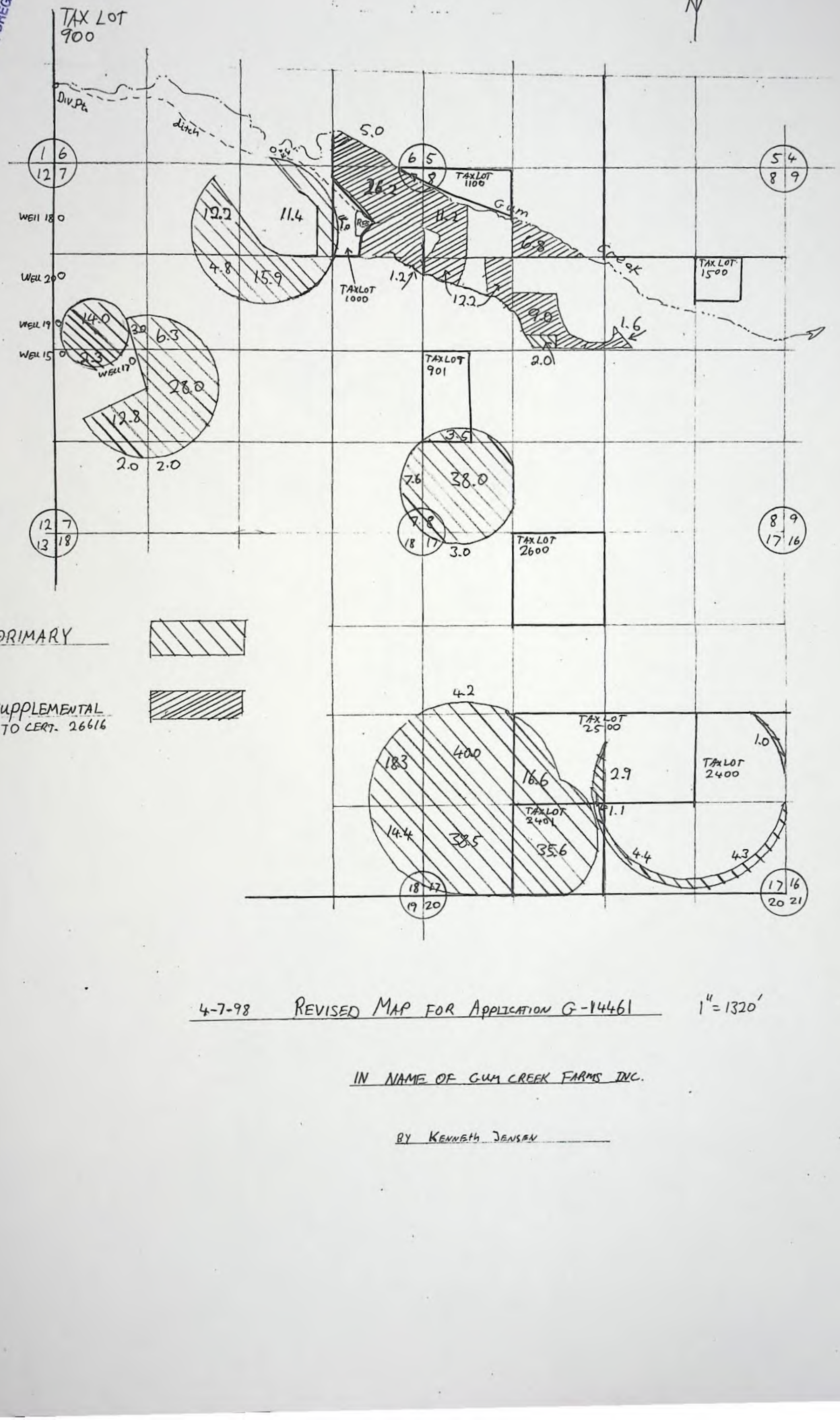
GUM CREEK FARMS

Surveyed 7-31, 1992, by J. MILLER

41045-178-960 JM 1-23-98

Superseded

T16S R43E WM.

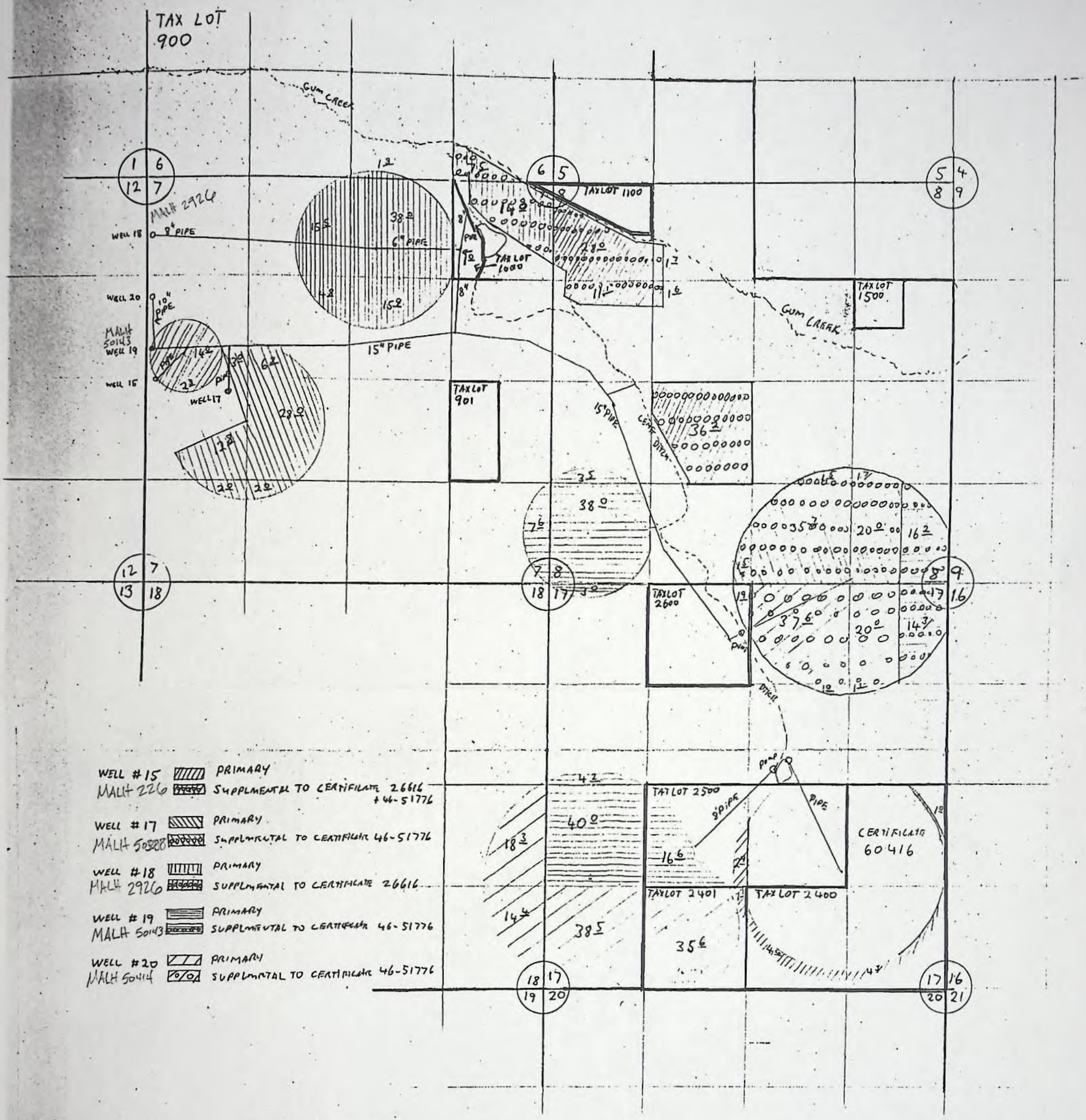


4-7-98 REVISED MAP FOR APPLICATION G-14461 1" = 1320'

IN NAME OF GUM CREEK FARMS INC.

BY KENNETH JENSEN

T.16S. R43E.



APPLICATION FOR PERMIT 1" = 1320'

IN NAME OF

GUM CREEK FARMS, INC.

RECEIVED
FEB 18 1997
WATER RESOURCES DEPT.
SALEM, OREGON

Application No. G14461
Permit No.

CK3, LLC

CIVIL-STRUCTURAL-ELECTRICAL
ENGINEERING-SURVEYING & PLANNING
368 SW 5TH AVENUE, ONTARIO, OR 97914

Serving the Greater Northwest since 1972

14 December 2007

RE: Application G-14461, Permit G-13533, Permit Amendment T-8616
Gum Creek Farms Inc. Vale, Oregon

Dear Mr. Gainey,

The following items, as referenced in your letter dated May 9, 2007, regarding the Claim of Beneficial Use have been addressed and completed:

- The Claim Map is drawn on 0.003 inch polyester film and is signed and stamped.
- The Map provides the number of irrigated acres in all quarter-quarters.
- Horsepower information for all pumps has been provided.
- The period of use has been changed to reflect the period of use.
- Calculations and system information for each well has been provided.
- The COBU does reflect that the submittal of annual static water level measurements is a requirement.
- At the time of revision the latest COBU version was used.

Respectfully submitted,

Stewart R. Edwards
Professional Engineer

Phone (541) 889-5411 Fax (541) 889-2074 E-Mail Address: ecllc@fmtc.com

This form is subject to revision. Begin each new claim by checking for a new version of this form and downloading a new one if necessary.

If you have questions regarding the completion of this form, contact:

Gerry Clark by e-mail at Gerald.E.CLARK@wrd.state.or.us or by phone at 503-986-0811,

Or Jerry Gainey by e-mail at Jerry.W.GAINEY@wrd.state.or.us or by phone at 503-986-0812.

The Department has a new program that allows a permit holder to pay the cost to have a private contractor review of the claim and, if appropriate, prepare a certificate. This new program means a certificate can be issued in about a month. The Department has a list of trained contractors that are selected on a rotating basis. For more information on this program see: http://www.wrd.state.or.us/programs/index.shtml.

**This box can be deleted

Oregon Water Resources Department
725 Summer St. NE, Suite A
Salem, OR 97301-1266

CLAIM OF BENEFICIAL USE

The completion of this form is required by OAR 690-014-0100(1) and 690-014-0110(4).

Please type or print in dark ink. If this form is found to contain errors or omissions, it may be returned to you. Every numbered item must have a response. If any requested information does not apply to the Claim, insert "n/a." Do not delete any section of this form unless directed by the form. The Department may require the submittal of additional information from any water user or authorized agent. **A separate form shall be completed for each permit or transfer final order.**

I. General Information

1. File Information

Application Number (G, R, S or T)	Permit Number (if applicable)
G-14461	G-13533

2. Property owner (current owner information)

a. Individuals

Name	n/a	
Mailing Address	n/a	
City/State/Zip	n/a	
Phone #	n/a	
Fax #	n/a	
e-mail address	n/a	

b. Businesses/Organizations

Name	Gum Creek Farms, Inc.
Contact Person and Title	William A. Heid
Mailing Address	5070 South Road K
City/State/Zip	Vale, Oregon 97918
Phone	(541) 473-3135
Fax	(541) 473-3135
e-mail	none

If the current property owner is not the permittee or transfer holder of record, it is recommended that an assignment be filed with the Department. The COBU must be signed by the permit/transfer holder of record.

3. Permittee / Transferee of record (this may, or may not, be the current property owner)

c. Individuals

	Individual 1	Individual 2
Name	n/a	n/a
Mailing Address	n/a	n/a
City/State/Zip	n/a	n/a

d. Businesses/Organizations

Name	n/a
Contact Person and Title	n/a
Mailing Address	n/a
City/State/Zip	n/a

4. Date of Site Inspection: September 22, 2004 & October 22, 2007

5. Person(s) interviewed and description of their association with the project:

Name	Date	Association with the project
Ken Jensen	9/22/04	Part Owner
Ken Jensen	10/22/07	Part Owner

6. County: Malheur

7. Tax Lot Information:

Tax map number	Tax lot number
16S – 43E	4000, 4100, 5400, 5900, 6000, 6100
16S – 43E – 09	800, 900

8. If any property described in the place of use of the permit or transfer final order is excluded from this report, identify the owner of record for that property (ORS 537.230(3)):

**Mark "NA" if there are no owners of property not included in this claim

Name	NA
Contact Person and Title	NA
Mailing Address	NA
City/State/Zip	NA
Phone #	NA

Name	NA
Contact Person and Title	NA
Mailing Address	NA
City/State/Zip	NA
Phone #	NA

II. Points of Diversion/Appropriation and Place of Use

For each point of diversion or appropriation, provide the following information. If the claim is for more than one point of diversion/appropriation, copy and complete this section for each point of diversion or appropriation.

1. Provide a general narrative description of the distribution works. This description must trace the water system from the point of diversion or appropriation to and include the place of use:

Well #15 is the point of appropriation. The well pump delivers water to a 10" PVC. The 10"PVC then tees into a 15" PVC which then tees again and either delivers water north to the 8" gated pipe or to the New or 138 degree pivot, or easterly to another tee which supplies water directly to Hammack pivot #1 or to a dredge which then delivers water by means of gravity flow PVC to the 138 degree pivot and to the 5.0 acres irrigated with 8" gated pipe (see map) and/or to Hammack pivots 2, 3, and 4 and/or to the sump through the combination of concrete and earth ditches. The water from the sump is then pumped to the south pivot. The individual pivots and 8" gated pipe deliver water to the fields.

2. Point of diversion/appropriation name or number (correspond to map):

Point of diversion/appropriation name or number (correspond to map)	Well log ID # for all work performed on the well (if applicable)	Well tag # (if applicable)
Well #15	Log included	n/a
	16S/43E-7a.c.	

Attach each well log available for the well (include the log for the original well and any subsequent alterations, reconstructions, and deepenings)

3. Point of diversion/appropriation source and, if from surface water, the tributary:

Source	Tributary to
Ground Water	n/a

4. Point of diversion/appropriation location:

(DLC, Government Lot, ¼ ¼, Section, Township, Range)	Reference to a recognized public land survey corner by distance and bearing or by coordinates
SW ¼ NW ¼, Sec. 7, T16S, R43E, W.M.	2655 ft south, 116 ft. east of the NW Corner of Sec. 7

5. Actual use(s), period of use, and rate for each use:

Uses	If irrigation, list crop type	When water is used	Rate for use
Irrigation	Alfalfa, Grain, Corn	April thru October	1.35 cfs

Total Quantity of Water **1.17 cfs** ____

6. Place of use for the point of diversion or appropriation:

DLC	Gov lot	1/4 1/4	Section	Township	Range	Use	# of primary acres	# of supplemental acres
		SESE	6	16S	43E	IRR	0	5.0
		NENE	7	16S	43E	IRR	6.4	26.7
		SENE	7	16S	43E	IRR	0	3.8
		NWNW	8	16S	43E	IRR	0	15.2
		NENW	8	16S	43E	IRR	5.9	0

		SWNE	8	16S	43E	IRR	0	1.6
		SENW	8	16S	43E	IRR	3.4	9.0
		SWNW	8	16S	43E	IRR	0	12.2
		NWSW	9	16S	43E	IRR	26.3	0
		NESW	9	16S	43E	IRR	9.5	0
		NWSE	9	16S	43E	IRR	17.7	0
		SWSE	9	16S	43E	IRR	33.2	0
		SESW	9	16S	43E	IRR	9.8	0
		SWSW	9	16S	43E	IRR	17.9	0
		NWNW	16	16S	43E	IRR	31.3	0
		NENW	16	16S	43E	IRR	29.5	0
		NWNE	16	16S	43E	IRR	40.0	0
		NENE	16	16S	43E	IRR	9.5	0
		SENE	16	16S	43E	IRR	1.2	0
		SWNE	16	16S	43E	IRR	16.6	0
		SENW	16	16S	43E	IRR	18.4	0
		SWNW	16	16S	43E	IRR	30.9	0
		NENE	17	16S	43E	IRR	1.5	0
		SENE	17	16S	43E	IRR	1.6	0
		NESW	17	16S	43E	IRR	2.9	0
		NESE	17	16S	43E	IRR	1.3	0
		SESE	17	16S	43E	IRR	4.3	0
		SWSE	17	16S	43E	IRR	4.4	0
		SESW	17	16S	43E	IRR	1.4	0
							324.9	73.5

Total Acres Irrigated **398.4 acres**

**If the appropriation is not from ground water (well or sump), this section, items 1-5, can be deleted.

1. Describe the access port (type and location) or other means to measure the water level in the well in the box below:

1 ½" access port

2. If well logs are not available, provide as much of the following information as possible:

Casing Diameter	Casing Depth	Total Depth	Completion Date of Original Well	Completion Dates of Alterations	Who the well was drilled for	Well drilled by
12"	286'	348'	10/19/1980	n/a	Gum Creek Farms Inc.	Pioneer Water Develop.

In addition to the information requested in item "2" above, provide any other information which may help the Department locate any well logs associated with this appropriation.

See attached well logs & measuring reports

**If the appropriation is not from a sump, the following section, items 3-4, can be deleted. Construction standards for sumps can be found in OAR 690-210-0400.

3. If the appropriation involves a **SUMP**, provide the following information for each **SUMP**:

Length	Width	Average diameter	Maximum depth	Surface area (in acres)	Volume in cubic feet or acre feet
350'	150'	n/a	10'+	1.21	525,000 cf

(Sump is irregular, approximate average width and length)

4. If the sump is curbed constructed with watertight surface curbing, describe the curbing in the table below:

Curbing material (concrete, concrete tiles, or steel)	If concrete, provide the thickness of the wall
n/a	n/a

5. Provide sump volume calculations in the box below:

(150') x (350') x (10') = 525,000 cubic feet

Reservoir Data

**If this claim is not for a reservoir, or the system does not involve a reservoir as part of the distribution system, this section, items 1-7, can be deleted.

Storage tank data

**If this system does not include a storage tank as part of the distribution system, this section, item 1, can be deleted.

Gravity flow pipe (The Department typically uses the Hazen-William's formula for a gravity flow pipe system)

**If this claim does not rely on a gravity flow pipe to convey the water as part of the distribution system, this section, items 1-3, can be deleted.

1. If the system involves a gravity flow pipe, complete the table below.

Pipe size	Pipe type	"C" factor	Amount of fall	Length of pipe	Slope	Computed rate of water flow
15"	PVC	140	90'	4,583'	0.01964	13.06 cfs
12"	PVC	140	10'	1,836'	0.00545	3.63 cfs
10"	PVC	140	20'	707'	0.02829	5.51 cfs
10"	PVC	140	10'	1801'	0.00555	2.29 cfs
8"	PVC	140	20'	1505'	0.01329	1.89 cfs
8"	PVC	140	5'	926'	0.00540	1.25 cfs
8"	PVC	140	10'	860'	0.01163	1.89 cfs
8"	PVC	140	15'	884'	0.0170	2.31 cfs
8"	PVC	140	5'	406'	0.0123	1.94 cfs
8"	PVC	140	5'	798'	0.00627	1.35 cfs
8"	PVC	140	10'	1670'	0.006	1.32 cfs

2. Provide calculations in the box below:

$V = 1.318 C_{HW} R_h^{0.63} S^{0.54}$

$C_{HW} = 140$ (pvc)
$R_h = D/4$ (circular pipe in feet)
$S =$ Slope

$Q = VA$; $A = \pi d^2/4$;

$V_{15" PVC} =$ **10.62 ft/s** $Q_{15" PVC} =$ **13.06 cfs**

$V_{12" PVC} =$ **4.62 ft/s** $Q_{12" PVC} =$ **3.63 cfs**

$V_{10" PVC} =$ **10.02 ft/s** $Q_{10" PVC} =$ **5.51 cfs**

$V_{10" PVC} =$ **4.16 ft/s** $Q_{10" PVC} =$ **2.29 cfs**

$V_{8" PVC} =$ **5.39 ft/s** $Q_{8" PVC} =$ **1.89 cfs**

$V_{8" PVC} =$ **3.56 ft/s** $Q_{8" PVC} =$ **1.25 cfs**

$V_{8" PVC} =$ **5.39 ft/s** $Q_{8" PVC} =$ **1.89 cfs**

$V_{8" PVC} =$ **6.61 ft/s** $Q_{8" PVC} =$ **2.31 cfs**

$V_{8" PVC} =$ **5.55 ft/s** $Q_{8" PVC} =$ **1.94 cfs**

$V_{8" PVC} =$ **3.86 ft/s** $Q_{8" PVC} =$ **1.35 cfs**

$V_{8" PVC} =$ **3.77 ft/s** $Q_{8" PVC} =$ **1.32 cfs**

3. If an actual measurement was taken, provide the following:

Date of Measurement	Who made the measurement	Measurement method	Measured quantity of water
n/a	n/a	n/a	n/a

Attach measurements notes

Gravity flow canal or ditch (The Department typically uses Manning's formula for canals and ditches)

**If this claim does not rely on a gravity flow canal or ditch to convey the water as part of the distribution system, this section, items 1-3, can be deleted.

1. If the system involves a gravity canal or ditch, complete the table below.

Canal or ditch type (material)	Top width of canal or ditch	Bottom width of canal or ditch	Depth	"N" factor	Amount of fall	Length of canal/ditch	Slope	Computed volume
Earth Ditch	16'	6'	4'	0.06	3'	2162'	0.138%	See calcs
Concrete Ditch	4.8'	1.2'	2'	0.015	3'	3668'	0.0818%	See calcs

2. Provide calculations in the box below:

$$V = \left(\frac{1.49}{n}\right)\left(R_h^{\frac{2}{3}}\right)\left(S^{1/2}\right) \qquad R_h = A/P$$

$= 0.91$ft (concrete ditch)
$= 3.55$ft (earth ditch)

n = 0.015 (concrete ditch)
0.06 (earth ditch)

V = 2.67 ft/s (concrete ditch)
= 2.15 ft/s (earth ditch)

Because of the complexity of the system it uncertain the amount of time that water flows through the ditches therefore the volume is unable to be accurately calculated.

3. If an actual measurement was taken, provide the following:

Date of Measurement	Who made the measurement	Measurement method	Measured quantity of water
n/a	n/a	n/a	n/a

Attach measurements notes

System Information:

Provide the following information concerning the diversion and delivery system. Trace the flow of water from the point of diversion/appropriation to the place of use.

1. Pump information

Brand	Model	Serial Number	Type (centrifugal, turbine or submersible)	Intake size	Discharge size
GOULD	11CLC	na	Line shaft turbine	8"	8"

2. Motor information

Brand	Model	Horsepower	Max RPM	Voltage
U.S.	3267P	50	1780	460

3. Meter information (if required in permit or transfer final order)

Make	Serial #	Condition (working or not)	Current meter reading	Notes
McCROMETER	101902-10	WORKING	512.1	N/A

4. Measurement device description

Device description	Condition (working or not)	Notes
FLOW METER	n/a	n/a

5. Measured pump capacity (using meter if meter was present and system was operating)

Initial meter reading	Ending meter reading	Duration of time observed	Total pump output
600 GPM	425 GPM	4 HOURS	425 gpm

6. Theoretical pump capacity

Horsepower	Operating psi	Lift from source to pump *If a well, the water level during pumping (see pump test results)	Lift from pump to place of use	Total pump output
50	22 psi	144.7 feet	-163 feet	783.6 GPM

7. Provide pump calculations in the box below:

$$Q_{pump} = \left[\frac{(Hp)(conv.factor)}{(lift + pressure)}\right]$$

conversion factor = 7.04

Hp = 50 horse power
Lift + pressure = 200.6 feet
1 GPM = 0.0022333 cfs

Q = 1.75 cfs = 783.6 GPM

**This box can be deleted from the form

$$Q_{pump} = \frac{(Hp)(550 \text{ ft lb/sec/Hp})(efficiency)}{(62.4 \text{ lb/cu ft})(lift + press) \text{ in feet}} = \frac{(efficiency)(Hp)}{\text{total head in feet}} = cfs$$

or

$$Q_{pump} = \frac{(Hp)(conversion\ factor)}{(lift + pressure)\ \textit{total head in feet}} = cfs$$

Conversion factors:

Centrifugal Pump, 75% eff. $\frac{(550 \text{ ft lb/sec/Hp})(.75)}{(62.4 \text{ lb/cu ft})} = 6.61 \text{ ft}^4\text{/sec/Hp}$

Turbine & Submersible Pumps, 80% eff. $\frac{(550 \text{ ft lb/sec/Hp})(.80)}{(62.4 \text{ lb/cu ft})} = 7.04 \text{ ft}^4\text{/sec/Hp}$

Efficiencies have been assumed to be 75% for centrifugal pump installations and 80% for turbine or submersible pumps. See the list below of converted psi's to feet of head. These figures account for minor friction losses. If the system involves unusually long pipelines friction losses should be accounted for by using standard charts and formulas.

Refer to the conversion table below to compute PSI to head for pump pressure in feet.

[(psi/.433)(1.1) = head (in feet/psi) = 2.54 feet head/psi]

PSI	HEAD	PSI	HEAD
25	63.5	55	139.7
30	76.2	60	152.4
35	88.9	65	165.1
40	101.6	70	177.8
45	114.3	75	190.5
50	127.0	80	203.2

8. Mainline information

Mainline size	Length	Type of pipe	Buried or above ground
15"	8,810 ft	PVC	Buried
12"	906 ft	PVC	Buried
10"	7,343 ft	PVC	Buried
8"	6,412 ft	PVC	Buried

9. Lateral or handline information

Lateral or handline size	Length	Type of pipe	Buried or above ground
15"	4,583 ft	PVC	Buried
12"	3,506 ft	PVC	Buried
10"	2,508 ft	PVC	Buried
8"	3,655 ft	PVC	Buried
8" Gated	1,724 ft	PVC	Above Ground

10. Sprinkler information Make and model:

Make	Model	Size	Operating psi	Sprinkler output	Maximum number used	Total sprinkler output
Nelson	R3000	Varies from 14 to 33	Varies from 15.04 to 16.68 psi	Varies from 1.35 to 7.36 gpm	107	$\frac{(4.684)(107)}{448.8} =$ 1.117 cfs
Nelson	R3000	Varies from 14 to 34	Varies from 15.13 to 16.80 psi	Varies from 1.37 to 7.85 gpm	151	$\frac{(4.769)(151)}{448.8} =$ 1.605 cfs
Nelson	R3000	Varies from 14 to 44	Varies from 14.62 to 16.65 psi	Varies from 1.35 to 13.01 gpm	88	$\frac{(7.23)(88)}{448.8} =$ 1.418 cfs
Nelson	S3000	Varies from 12 to 40	Varies from 10.25 to 16.81 psi	Varies from 1.01 to 8.96 gpm	113	$\frac{(5.546)(113)}{448.8} =$ 1.396 cfs
Nelson	S3000	Varies from 12 to 31	Varies from 15.27 to 16.75 psi	Varies from 1.01 to 7.42 gpm	72	$\frac{(4.495)(72)}{448.8} =$ 0.721 cfs
Nelson	S3000	Varies from 12 to 31	Varies from 15.27 to 16.75 psi	Varies from 1.01 to 7.42 gpm	72	$\frac{(4.495)(72)}{448.8} =$ 0.721 cfs
Nelson	P85AS	11/32 TB	Not provided	48.83 gpm	1	0.109 cfs
Nelson	P85AS	3/8 TB	62.92 psi	63.80 gpm	1	0.1422 cfs
Nelson	P85AS	11/32 TB	31.77	38.15 gpm	2	0.1700 cfs

Nelson	S3000	Varies from 12 to 34	15.22 to 16.79 psi	Varies from 1.01 to 7.87 gpm	69	$\frac{(4.542)(69)}{448.8} =$ 0.698 cfs
Dual Nelson	P85AS	11/32 TB	32.02 psi	38.31 gpm	1	0.085 cfs

Refer to the chart of sprinkler output at various pressures for most nozzle sizes attached to this document.

$$Q_{\text{sprinklers}} = \frac{(\text{max \# heads})(\text{gpm/head})}{448.8\ \text{gpm/cfs}} = \text{cfs}$$

11. **Additional notes or comments related to the system:**

III. CONDITIONS

Please pay special attention to this section. All conditions contained in the permit or transfer final order shall be addressed. Reports that do not address all performance related conditions will be returned.

1. **Time Limits:**

a. Permits or transfer Final Orders contain any or all of the following dates; the date when the actual construction work was to begin, the date when the construction was to be completed, and the date when the complete application of water to the proposed use is to be completed by. These dates may be referred to as ABC dates. Describe how the water user has complied with each of the development timelines established in the permit or transfer final order:

	Dates from permit or transfer final order	Date accomplished	Description of actions taken by water user to comply with the time limits
Begin construction	11/13/1999	n/a	All Wells drilled & finished by 1996 previous Water Right
Complete construction	n/a	n/a	None specified
Complete application of water	10/01/2003	n/a	Existing System & Additional Pivots

2. **Initial Water Level Measurements:**

**If the Claim is for surface water or a reservoir, or if the water user was not required to submit static water level measurements, items b through e relating to this section can be deleted.

a. Was the water user required to submit an initial static water level measurement? YES

b. What month was the initial measurement to be taken in? March

c. Did an authorized individual (as stated in the permit or transfer final order) make the initial static water level measurement in the month required?

YES

d. If "YES", was the measurement submitted to the Department? YES

e. If the initial measurement not been submitted, provide that measurement now if available:

Date of measurement	Who made measurement	Method	Measurement
n/a	n/a	n/a	n/a

3. **Annual Static Water Level Measurements:**

**If the Claim is for surface water or a reservoir, or if the water user was not required to submit static water level measurements, items b through e relating to this section can be deleted.

a. Was the water user required to submit annual static water level measurements? YES

b. In the box below, provide the month in which the static water level was to be made:

March

c. Were the static water level measurements taken in the month required? YES

d. If "YES", were those measurements submitted to the Department? YES

e. If the annual measurements were not submitted, provide the measurements now in the box below:

Year	Month	Measurement made by	Measurement
n/a	n/a	n/a	n/a

4. **Measurement, recording, and reporting conditions:**

a. Does the permit or transfer final order require the installation of a meter or approved measuring device? YES

If a meter or approved measuring device was required, the COBU map must indicate the location of the device in relation to the point of diversion or appropriation.

**If "NO", items b through g relating to this section can be deleted.

b. Has a meter been installed? YES

c. Provide the date the meter was installed:

March 2000

d. If a meter has not been installed, has a suitable measuring device been installed and approved by the Department? NA

e. If "YES", provide a copy of the letter approving the device, if available. If the letter is not available provide the name and title of the Water Resources Department employee approving the measuring device, and the approximate date of the approval:

Name	Title	Approximate date
n/a	n/a	n/a

f. Is the water user required to report the water use to the Department? YES

g. Have the reports been submitted? YES

If the reports have not been submitted, attach a copy of the reports if available.

5. **Fish Screening and/or By-pass Devices**

a. Are any points of diversion required to be screened and/or have a by-pass device to prevent fish from entering the point of diversion? NO

If fish screening and/or by-pass devices were required, the COBU map must indicate their location in relation to the point of diversion.

**If "NO", items b through i relating to this section can be deleted

j. If not, is the approval letter attached to the Claim? N/A

k. Has the by-pass device been installed? N/A

l. Describe the by-pass device:

When installed	By whom	Approved by ODFW	Description
n/a	n/a	n/a	n/a

6. **Pump Test** (Required for ground permits prior to issuance of a certificate, but not a requirement of permit development)

a. Did the permit require the submittal of a pump test? YES

b. Has the pump test been previously submitted to the Department? YES

c. Has the pump test been approved by the Department? NOT SURE

d. If no, is the pump test attached to this Claim? YES

7. **Other Permit Conditions** (examples: special well construct standards, water conservation plans, no obstructions to fish without a fishway, etc.; number as appropriate.)

None Specified

II. Points of Diversion/Appropriation and Place of Use

For each point of diversion or appropriation, provide the following information. If the claim is for more than one point of diversion/appropriation, copy and complete this section for each point of diversion or appropriation.

1. Provide a general narrative description of the distribution works. This description must trace the water system from the point of diversion or appropriation to and include the place of use:

Well #17 is the point of appropriation. The well pump delivers water to a 10" PVC. The 10"PVC then tees into a 15" PVC which then tees again and either delivers water north to the 8" gated pipe or to the New or 138 degree pivot, or easterly to another tee which supplies water directly to Hammack pivot #1 or to a dredge which then delivers water by means of gravity flow PVC to the 138 degree pivot and to the 5.0 acres irrigated with 8" gated pipe (see map) and/or to Hammack pivots 2, 3, and 4 and/or to the sump through the combination of concrete and earth ditches. From the sump the water is pumped to the south pivot. The individual pivots and 8" gated pipe deliver water to the fields.

2. Point of diversion/appropriation name or number (correspond to map):

Point of diversion/appropriation name or number (correspond to map)	Well log ID # for all work performed on the well (if applicable)	Well tag # (if applicable)
Well #17	Log included	n/a
	L06223	

Attach each well log available for the well (include the log for the original well and any subsequent alterations, reconstructions, and deepenings)

3. Point of diversion/appropriation source and, if from surface water, the tributary:

Source	Tributary to
Ground Water	n/a

4. Point of diversion/appropriation location:

(DLC, Government Lot, ¼ ¼, Section, Township, Range)	Reference to a recognized public land survey corner by distance and bearing or by coordinates
SW ¼ NW ¼, Sec. 7, T16S, R43E, W.M.	2828 ft south, 1097 ft east of NW corner of Sec.

5. Actual use(s), period of use, and rate for each use:

Uses	If irrigation, list crop type	When water is used	Rate for use
Irrigation	Alfalfa, Grain, Corn	April thru October	1.43 cfs

Total Quantity of Water **1.17 cfs**

6. Place of use for the point of diversion or appropriation:

DLC	Gov lot	1/4 1/4	Section	Township	Range	Use	# of primary acres	# of supplemental acres
		SESE	6	16S	43E	IRR	0	5.0
		NENE	7	16S	43E	IRR	6.4	26.7
		SENE	7	16S	43E	IRR	0	3.8
		NWNW	8	16S	43E	IRR	0	15.2
		NENW	8	16S	43E	IRR	5.9	0
		SWNE	8	16S	43E	IRR	0	1.6

		SENW	8	16S	43E	IRR	3.4	9.0
		SWNW	8	16S	43E	IRR	0	12.2
		NWSW	9	16S	43E	IRR	26.3	0
		NESW	9	16S	43E	IRR	9.5	0
		NWSE	9	16S	43E	IRR	17.7	0
		SWSE	9	16S	43E	IRR	33.2	0
		SESW	9	16S	43E	IRR	9.8	0
		SWSW	9	16S	43E	IRR	17.9	0
		NWNW	16	16S	43E	IRR	31.3	0
		NENW	16	16S	43E	IRR	29.5	0
		NWNE	16	16S	43E	IRR	40.0	0
		NENE	16	16S	43E	IRR	9.5	0
		SENE	16	16S	43E	IRR	1.2	0
		SWNE	16	16S	43E	IRR	16.6	0
		SENW	16	16S	43E	IRR	18.4	0
		SWNW	16	16S	43E	IRR	30.9	0
		NENE	17	16S	43E	IRR	1.5	0
		SENE	17	16S	43E	IRR	1.6	0
		NESW	17	16S	43E	IRR	2.9	0
		NESE	17	16S	43E	IRR	1.3	0
		SESE	17	16S	43E	IRR	4.3	0
		SWSE	17	16S	43E	IRR	4.4	0
		SESW	17	16S	43E	IRR	1.4	0

Total Acres Irrigated **398.4 acres**

**If the appropriation is not from ground water (well or sump), this section, items 1-5, can be deleted.

1. Describe the access port (type and location) or other means to measure the water level in the well in the box below:

1 ½" access port

2. If well logs are not available, provide as much of the following information as possible:

Casing Diameter	Casing Depth	Total Depth	Completion Date of Original Well	Completion Dates of Alterations	Who the well was drilled for	Well drilled by
16"	18'	370'	10-17-1996	n/a	Gum Creek Farms Inc.	Herbert Bowman

In addition to the information requested in item "2" above, provide any other information which may help the Department locate any well logs associated with this appropriation.

See attached well logs & measuring reports

**If the appropriation is not from a sump, the following section, items 3-4, can be deleted. Construction standards for sumps can be found in OAR 690-210-0400.

3. If the appropriation involves a **SUMP**, provide the following information for each **SUMP**:

Length	Width	Average diameter	Maximum depth	Surface area (in acres)	Volume in cubic feet or acre feet
350'	150'	n/a	10'+	1.21	525,000 cf

4. If the sump is curbed constructed with watertight surface curbing, describe the curbing in the table below:

Curbing material (concrete, concrete tiles, or steel)	If concrete, provide the thickness of the wall
n/a	n/a

5. Provide sump volume calculations in the box below:

(150') x (350') x (10') = 525,000 cubic feet

Reservoir Data

**If this claim is not for a reservoir, or the system does not involve a reservoir as part of the distribution system, this section, items 1-7, can be deleted.

Storage tank data

**If this system does not include a storage tank as part of the distribution system, this section, item 1, can be deleted.

Gravity flow pipe (The Department typically uses the Hazen-William's formula for a gravity flow pipe system)

**If this claim does not rely on a gravity flow pipe to convey the water as part of the distribution system, this section, items 1-3, can be deleted.

1. If the system involves a gravity flow pipe, complete the table below.

Pipe size	Pipe type	"C" factor	Amount of fall	Length of pipe	Slope	Computed rate of water flow
15"	PVC	140	90'	4,583'	0.01964	13.06 cfs
12"	PVC	140	10'	1,836'	0.00545	3.63 cfs
10"	PVC	140	20'	707'	0.02829	5.51 cfs
10"	PVC	140	10'	1801'	0.00555	2.29 cfs
8"	PVC	140	20'	1505'	0.01329	1.89 cfs
8"	PVC	140	5'	926'	0.00540	1.25 cfs
8"	PVC	140	10'	860'	0.01163	1.89 cfs
8"	PVC	140	15'	884'	0.0170	2.31 cfs
8"	PVC	140	5'	406'	0.0123	1.94 cfs
8"	PVC	140	5'	798'	0.00627	1.35 cfs
8"	PVC	140	10'	1670'	0.006	1.32 cfs

2. Provide calculations in the box below:

$V = 1.318 C_{HW} R_h^{0.63} S^{0.54}$

$C_{HW} = 140$ (pvc)
$R_h = D/4$ (circular pipe in feet)
$S =$ Slope

$Q = VA; \quad A = \pi d^2/4;$

$V_{15" PVC} =$ **10.62 ft/s** $\quad Q_{15" PVC} =$ **13.06 cfs**

$V_{12" PVC} =$ **4.62 ft/s** $\quad Q_{12" PVC} =$ **3.63 cfs**

$V_{10" PVC} =$ **10.02 ft/s** $\quad Q_{10" PVC} =$ **5.51 cfs**

$V_{10" PVC} =$ **4.16 ft/s** $\quad Q_{10" PVC} =$ **2.29 cfs**

$V_{8" PVC} =$ **5.39 ft/s** $\quad Q_{8" PVC} =$ **1.89 cfs**

$V_{8" PVC} =$ **3.56 ft/s** $\quad Q_{8" PVC} =$ **1.25 cfs**

$V_{8" PVC} =$ **5.39 ft/s** $\quad Q_{8" PVC} =$ **1.89 cfs**

$V_{8" PVC} =$ **6.61 ft/s** $\quad Q_{8" PVC} =$ **2.31 cfs**

$V_{8" PVC} =$ **5.55 ft/s** $\quad Q_{8" PVC} =$ **1.94 cfs**

$V_{8" PVC} =$ **3.86 ft/s** $\quad Q_{8" PVC} =$ **1.35 cfs**

$V_{8" PVC} =$ **3.77 ft/s** $\quad Q_{8" PVC} =$ **1.32 cfs**

3. If an actual measurement was taken, provide the following:

Date of Measurement	Who made the measurement	Measurement method	Measured quantity of water
n/a	n/a	n/a	n/a

Attach measurements notes

Gravity flow canal or ditch (The Department typically uses Manning's formula for canals and ditches)

**If this claim does not rely on a gravity flow canal or ditch to convey the water as part of the distribution system, this section, items 1-3, can be deleted.

1. If the system involves a gravity canal or ditch, complete the table below.

Canal or ditch type (material)	Top width of canal or ditch	Bottom width of canal or ditch	Depth	"N" factor	Amount of fall	Length of canal/ditch	Slope	Computed volume
Earth Ditch	16'	6'	4'	0.06	3'	2162'	0.138%	See Calcs
Concrete Ditch	4.8'	1.2'	2'	0.015	3'	3668'	0.0818%	See Calcs

2. Provide calculations in the box below:

$$V = \left(\frac{1.49}{n}\right)\left(R_h^{\frac{2}{3}}\right)\left(S^{1/2}\right) \qquad R_h = A/P$$

$= 0.91$ft (concrete ditch)
$= 3.55$ft (earth ditch)

n = 0.015 (concrete ditch)
0.06 (earth ditch)

V = 2.67 ft/s (concrete ditch)
= 2.15 ft/s (earth ditch)

Because of the complexity of the system it uncertain the amount of time that water flows through the ditches therefore the volume is unable to be accurately calculated.

3. If an actual measurement was taken, provide the following:

Date of Measurement	Who made the measurement	Measurement method	Measured quantity of water
n/a	n/a	n/a	n/a

Attach measurements notes

System Information:

Provide the following information concerning the diversion and delivery system. Trace the flow of water from the point of diversion/appropriation to the place of use.

1. Pump information

Brand	Model	Serial Number	Type (centrifugal, turbine or submersible)	Intake size	Discharge size
GOULD	11CLC	n/a	TURBINE	8	8

2. Motor information

Brand	Model	Horsepower	Max RPM	Voltage
U.S.	326TP	50	1780	460

3. Meter information (if required in permit or transfer final order)

Make	Serial #	Condition (working or not)	Current meter reading	Notes
McCROMETER	001900-10	WORKING	562.5	n/a

4. Measurement device description

Device description	Condition (working or not)	Notes
Flow Meter	n/a	n/a

5. Measured pump capacity (using meter if meter was present and system was operating)

Initial meter reading	Ending meter reading	Duration of time observed	Total pump output
800 GPM	610 GPM	4 Hours	610 gpm

6. Theoretical pump capacity

Horsepower	Operating psi	Lift from source to pump *If a well, the water level during pumping (see pump test results)	Lift from pump to place of use	Total pump output
50	19 psi	138.2 feet	-153 feet	846.28 gpm

7. Provide pump calculations in the box below:

$$Q_{pump} = \left[\frac{(Hp)(conv.factor)}{(lift + pressure)}\right]$$

conversion factor = 7.04

Hp = 50 horse power
Lift + pressure = 186.50 feet
1 GPM = 0.0022333 cfs

Q = 1.89 cfs = 846.28 GPM

**This box can be deleted from the form

$$Q_{pump} = \frac{(Hp)(550 \text{ ft lb/sec/Hp})(efficiency)}{(62.4 \text{ lb/cu ft})(\text{lift + press in feet})} = \frac{(efficiency)(Hp)}{\text{total head in feet}} = \text{cfs}$$

or

$$Q_{pump} = \frac{(Hp)(\text{conversion factor})}{(\text{lift + pressure}) \textit{ total head in feet}} = \text{cfs}$$

Conversion factors:

Centrifugal Pump, 75% eff. $\frac{(550 \text{ ft lb/sec/Hp})(.75)}{(62.4 \text{ lb/cu ft})} = 6.61 \text{ ft}^4\text{/sec/Hp}$

Turbine & Submersible Pumps, 80% eff. $\frac{(550 \text{ ft lb/sec/Hp})(.80)}{(62.4 \text{ lb/cu ft})} = 7.04 \text{ ft}^4\text{/sec/Hp}$

Efficiencies have been assumed to be 75% for centrifugal pump installations and 80% for turbine or submersible pumps. See the list below of converted psi's to feet of head. These figures account for minor friction losses. If the system involves unusually long pipelines friction losses should be accounted for by using standard charts and formulas.

Refer to the conversion table below to compute PSI to head for pump pressure in feet.

[(psi/.433)(1.1) = head (in feet/psi) = 2.54 feet head/psi]

PSI	HEAD	PSI	HEAD
25	63.5	55	139.7
30	76.2	60	152.4
35	88.9	65	165.1
40	101.6	70	177.8
45	114.3	75	190.5
50	127.0	80	203.2

8. Mainline information

Mainline size	Length	Type of pipe	Buried or above ground
15"	8,810 ft	PVC	Buried
12"	906 ft	PVC	Buried
10"	7,343 ft	PVC	Buried
8"	6,412 ft	PVC	Buried

9. Lateral or handline information

Lateral or handline size	Length	Type of pipe	Buried or above ground
15"	4,583 ft	PVC	Buried
12"	3,506 ft	PVC	Buried
10"	2,508 ft	PVC	Buried
8"	3,655 ft	PVC	Buried
8" Gated	1,724 ft	PVC	Above Ground

10. Sprinkler information . Make and model:

Make	Model	Size	Operating psi	Sprinkler output	Maximum number used	Total sprinkler output
Nelson	R3000	Varies from 14 to 33	Varies from 15.04 to 16.68 psi	Varies from 1.35 to 7.36 gpm	107	$\frac{(4.684)(107)}{448.8} =$ 1.117 cfs
Nelson	R3000	Varies from 14 to 34	Varies from 15.13 to 16.80 psi	Varies from 1.37 to 7.85 gpm	151	$\frac{(4.769)(151)}{448.8} =$ 1.605 cfs
Nelson	R3000	Varies from 14 to 44	Varies from 14.62 to 16.65 psi	Varies from 1.35 to 13.01 gpm	88	$\frac{(7.23)(88)}{448.8} =$ 1.418 cfs
Nelson	S3000	Varies from 12 to 40	Varies from 10.25 to 16.81 psi	Varies from 1.01 to 8.96 gpm	113	$\frac{(5.546)(113)}{448.8} =$ 1.396 cfs
Nelson	S3000	Varies from 12 to 31	Varies from 15.27 to 16.75 psi	Varies from 1.01 to 7.42 gpm	72	$\frac{(4.495)(72)}{448.8} =$ 0.721 cfs
Nelson	S3000	Varies from 12 to 31	Varies from 15.27 to 16.75 psi	Varies from 1.01 to 7.42 gpm	72	$\frac{(4.495)(72)}{448.8} =$ 0.721 cfs
Nelson	P85AS	11/32 TB	Not provided	48.83 gpm	1	0.109 cfs
Nelson	P85AS	3/8 TB	62.92 psi	63.80 gpm	1	0.1422 cfs
Nelson	P85AS	11/32 TB	31.77	38.15 gpm	2	0.1700 cfs

Nelson	S3000	Varies from 12 to 34	15.22 to 16.79 psi	Varies from 1.01 to 7.87 gpm	69	$\frac{(4.542)(69)}{448.8} =$ 0.698 cfs
Dual Nelson	P85AS	11/32 TB	32.02 psi	38.31 gpm	1	0.085 cfs

Refer to the chart of sprinkler output at various pressures for most nozzle sizes attached to this document.

$$Q_{\text{sprinklers}} = \frac{(\text{max \# heads})(\text{gpm/head})}{448.8 \text{ gpm/cfs}} = \text{cfs}$$

12. **Additional notes or comments related to the system:**

III. CONDITIONS

Please pay special attention to this section. All conditions contained in the permit or transfer final order shall be addressed. Reports that do not address all performance related conditions will be returned.

1. **Time Limits:**

a. Permits or transfer Final Orders contain any or all of the following dates; the date when the actual construction work was to begin, the date when the construction was to be completed, and the date when the complete application of water to the proposed use is to be completed by. These dates may be referred to as ABC dates. Describe how the water user has complied with each of the development timelines established in the permit or transfer final order:

	Dates from permit or transfer final order	Date accomplished	Description of actions taken by water user to comply with the time limits
Begin construction	11/13/1999	n/a	All wells drilled & finished by 1996 previous Water Right
Complete construction	n/a	n/a	None specified
Complete application of water	10/01/2003	n/a	Existing System & Additional Pivots

2. **Initial Water Level Measurements:**
**If the Claim is for surface water or a reservoir, or if the water user was not required to submit static water level measurements, items b through e relating to this section can be deleted.

a. Was the water user required to submit an initial static water level measurement? YES

b. What month was the initial measurement to be taken in? March

c. Did an authorized individual (as stated in the permit or transfer final order) make the initial static water level measurement in the month required?
YES

d. If "YES", was the measurement submitted to the Department? YES

e. If the initial measurement not been submitted, provide that measurement now if available:

Date of measurement	Who made measurement	Method	Measurement
n/a	n/a	n/a	n/a

3. **Annual Static Water Level Measurements:**

**If the Claim is for surface water or a reservoir, or if the water user was not required to submit static water level measurements, items b through e relating to this section can be deleted.

a. Was the water user required to submit annual static water level measurements? YES

b. In the box below, provide the month in which the static water level was to be made:

March

c. Were the static water level measurements taken in the month required? YES

d. If "YES", were those measurements submitted to the Department? YES

e. If the annual measurements were not submitted, provide the measurements now in the box below:

Year	Month	Measurement made by	Measurement
n/a	n/a	n/a	n/a

4. **Measurement, recording, and reporting conditions:**

a. Does the permit or transfer final order require the installation of a meter or approved measuring device? YES

If a meter or approved measuring device was required, the COBU map must indicate the location of the device in relation to the point of diversion or appropriation.

**If "NO", items b through g relating to this section can be deleted.

b. Has a meter been installed? YES

c. Provide the date the meter was installed:

March 2000

d. If a meter has not been installed, has a suitable measuring device been installed and approved by the Department? n/a

e. If "YES", provide a copy of the letter approving the device, if available. If the letter is not available provide the name and title of the Water Resources Department employee approving the measuring device, and the approximate date of the approval:

Name	Title	Approximate date
n/a	n/a	n/a

f. Is the water user required to report the water use to the Department? YES

g. Have the reports been submitted? YES

If the reports have not been submitted, attach a copy of the reports if available.

5. **Fish Screening and/or By-pass Devices**

a. Are any points of diversion required to be screened and/or have a by-pass device to prevent fish from entering the point of diversion? NO

If fish screening and/or by-pass devices were required, the COBU map must indicate their location in relation to the point of diversion.

**If "NO", items b through i relating to this section can be deleted

j. If not, is the approval letter attached to the Claim? N/A

k. Has the by-pass device been installed? N/A

l. Describe the by-pass device:

When installed	By whom	Approved by ODFW	Description
n/a	n/a	n/a	n/a

6. **Pump Test** (Required for ground permits prior to issuance of a certificate, but not a requirement of permit development)

a. Did the permit require the submittal of a pump test? YES

b. Has the pump test been previously submitted to the Department? YES

c. Has the pump test been approved by the Department? NOT SURE

d. If no, is the pump test attached to this Claim? YES

7. **Other Permit Conditions** (examples: special well construct standards, water conservation plans, no obstructions to fish without a fishway, etc.; number as appropriate.)

None specified

II. Points of Diversion/Appropriation and Place of Use

For each point of diversion or appropriation, provide the following information. If the claim is for more than one point of diversion/appropriation, copy and complete this section for each point of diversion or appropriation.

1. Provide a general narrative description of the distribution works. This description must trace the water system from the point of diversion or appropriation to and include the place of use:

Well #18 is the point of appropriation. The well pump delivers water to a 8" PVC, the 8" PVC then delivers water directly to the Leach Pond Pivot, then continues on under pressure to a dredge. From the dredge water flows under the influence of gravity either north and is applied to a 5.0 acre field or southeast to the new pivot. The water that is not used up by this system then continues southwest to another dredge which adds to the water provided to the system by Wells 15,17,19, and 20.

2. Point of diversion/appropriation name or number (correspond to map):

Point of diversion/appropriation name or number (correspond to map)	Well log ID # for all work performed on the well (if applicable)	Well tag # (if applicable)
Well #18	Log included	n/a
	# 18	

Attach each well log available for the well (include the log for the original well and any subsequent alterations, reconstructions, and deepenings)

3. Point of diversion/appropriation source and, if from surface water, the tributary:

Source	Tributary to
Ground Water	n/a

4. Point of diversion/appropriation location:

(DLC, Government Lot, ¼ ¼, Section, Township, Range)	Reference to a recognized public land survey corner by distance and bearing or by coordinates
NW ¼ NW ¼, Sec. 7, T16S, R43E, WM.	769 ft. south, 32 ft. east of NW Corner of Sec. 7

5. Actual use(s), period of use, and rate for each use:

Uses	If irrigation, list crop type	When water is used	Rate for use
Irrigation	Alfalfa, Grain, Corn	April thru October	1.22 cfs

Total Quantity of Water **1.12 cfs**

6. Place of use for the point of diversion or appropriation:

DLC	Gov lot	1/4 1/4	Section	Township	Range	Use	# of primary acres	# of supplemental acres
		SESE	6	16S	43E	IRR	0	5.0
		SWSE	6	16S	43E	IRR	0.4	0
		NENW	7	16S	43E	IRR	13.2	0
		NWNE	7	16S	43E	IRR	11.5	0
		NENE	7	16S	43E	IRR	8.4	26.7
		SENE	7	16S	43E	IRR	0	4.0
		SWNE	7	16S	43E	IRR	16.0	0

		SENW	7	16S	43E	IRR	3.7	0
		NWNW	8	16S	43E	IRR	0	15.2
		NENW	8	16S	43E	IRR	0	5.9
		SWNE	8	16S	43E	IRR	0	1.6
		SENW	8	16S	43E	IRR	3.4	9.0
		SWNW	8	16S	43E	IRR	0	12.2
		NWSW	9	16S	43E	IRR	26.3	0
		NESW	9	16S	43E	IRR	9.5	0
		NWSE	9	16S	43E	IRR	17.7	0
		SWSE	9	16S	43E	IRR	33.2	0
		SESW	9	16S	43E	IRR	9.8	0
		SWSW	9	16S	43E	IRR	17.9	0
		NENW	16	16S	43E	IRR	16.5	0
		NWNE	16	16S	43E	IRR	40.0	0
		NENE	16	16S	43E	IRR	9.5	0
		SENE	16	16S	43E	IRR	1.2	0
		SWNE	16	16S	43E	IRR	16.6	0
		SENW	16	16S	43E	IRR	2.3	0
		NESW	17	16S	43E	IRR	2.9	0
		NESE	17	16S	43E	IRR	1.3	0
		SESE	17	16S	43E	IRR	4.3	0
		SWSE	17	16S	43E	IRR	4.4	0
		SESW	17	16S	43E	IRR	1.4	0

Total Acres Irrigated **351.0 acres**

**If the appropriation is not from ground water (well or sump), this section, items 1-5, can be deleted.

1. Describe the access port (type and location) or other means to measure the water level in the well in the box below:

1 ½" access port

2. If well logs are not available, provide as much of the following information as possible:

Casing Diameter	Casing Depth	Total Depth	Completion Date of Original Well	Completion Dates of Alterations	Who the well was drilled for	Well drilled by
16"	19'	360'	8-10-1993	n/a	Gum Creek Farms Inc.	Herbert Bowman

In addition to the information requested in item "2" above, provide any other information which may help the Department locate any well logs associated with this appropriation.

See attached well logs & measuring reports

**If the appropriation is not from a sump, the following section, items 3-4, can be deleted. Construction standards for sumps can be found in OAR 690-210-0400.

3. If the appropriation involves a **SUMP**, provide the following information for each **SUMP**:

Length	Width	Average diameter	Maximum depth	Surface area (in acres)	Volume in cubic feet or acre feet
350'	150'	n/a	10'+	1.21	525,000 cf

4. If the sump is curbed constructed with watertight surface curbing, describe the curbing in the table below:

Curbing material (concrete, concrete tiles, or steel)	If concrete, provide the thickness of the wall
n/a	n/a

5. Provide sump volume calculations in the box below:

(150') x (350') x (10') = 525,000 cubic feet

Reservoir Data

**If this claim is not for a reservoir, or the system does not involve a reservoir as part of the distribution system, this section, items 1-7, can be deleted.

Storage tank data

**If this system does not include a storage tank as part of the distribution system, this section, item 1, can be deleted.

Gravity flow pipe (The Department typically uses the Hazen-William's formula for a gravity flow pipe system)

**If this claim does not rely on a gravity flow pipe to convey the water as part of the distribution system, this section, items 1-3, can be deleted.

1. If the system involves a gravity flow pipe, complete the table below.

Pipe size	Pipe type	"C" factor	Amount of fall	Length of pipe	Slope	Computed rate of water flow
15"	PVC	140	90'	4,583'	0.01964	13.06 cfs
12"	PVC	140	10'	1,836'	0.00545	3.63 cfs
10"	PVC	140	20'	707'	0.02829	5.51 cfs
10"	PVC	140	10'	1801'	0.00555	2.29 cfs
8"	PVC	140	20'	1505'	0.01329	1.89 cfs
8"	PVC	140	5'	926'	0.00540	1.25 cfs
8"	PVC	140	10'	860'	0.01163	1.89 cfs
8"	PVC	140	15'	884'	0.0170	2.31 cfs
8"	PVC	140	5'	406'	0.0123	1.94 cfs
8"	PVC	140	5'	798'	0.00627	1.35 cfs
8"	PVC	140	10'	1670'	0.006	1.32 cfs

2. Provide calculations in the box below:

$V = 1.318 C_{HW} R_h^{0.63} S^{0.54}$

$C_{HW} = 140$ (pvc)
$R_h = D/4$ (circular pipe in feet)
S = Slope

$Q = VA$; $A = \pi d^2/4$;

$V_{15" PVC}$ = **10.62 ft/s** $Q_{15" PVC}$ = **13.06 cfs**

$V_{12" PVC}$ = **4.62 ft/s** $Q_{12" PVC}$ = **3.63 cfs**

$V_{10" PVC}$ = **10.02 ft/s** $Q_{10" PVC}$ = **5.51 cfs**

$V_{10" PVC}$ = **4.16 ft/s** $Q_{10" PVC}$ = **2.29 cfs**

$V_{8" PVC}$ = **5.39 ft/s** $Q_{8" PVC}$ = **1.89 cfs**

$V_{8" PVC}$ = **3.56 ft/s** $Q_{8" PVC}$ = **1.25 cfs**

$V_{8" PVC}$ = **5.39 ft/s** $Q_{8" PVC}$ = **1.89 cfs**

$V_{8" PVC}$ = **6.61 ft/s** $Q_{8" PVC}$ = **2.31 cfs**

$V_{8" PVC}$ = **5.55 ft/s** $Q_{8" PVC}$ = **1.94 cfs**

$V_{8" PVC}$ = **3.86 ft/s** $Q_{8" PVC}$ = **1.35 cfs**

$V_{8" PVC}$ = **3.77 ft/s** $Q_{8" PVC}$ = **1.32 cfs**

3. If an actual measurement was taken, provide the following:

Date of Measurement	Who made the measurement	Measurement method	Measured quantity of water
n/a	n/a	n/a	n/a

Attach measurements notes

Gravity flow canal or ditch (The Department typically uses Manning's formula for canals and ditches)

**If this claim does not rely on a gravity flow canal or ditch to convey the water as part of the distribution system, this section, items 1-3, can be deleted.

1. If the system involves a gravity canal or ditch, complete the table below.

Canal or ditch type (material)	Top width of canal or ditch	Bottom width of canal or ditch	Depth	"N" factor	Amount of fall	Length of canal/ditch	Slope	Computed volume
Earth Ditch	16'	6'	4'	0.06	3'	2162'	0.138%	See Calcs
Concrete Ditch	4.8'	1.2'	2'	0.015	3'	3668'	0.0818%	See Calcs

2. Provide calculations in the box below:

$$V = \left(\frac{1.49}{n}\right)\left(R_h^{\frac{2}{3}}\right)\left(S^{1/2}\right) \qquad R_h = A/P$$

$= 0.91$ft (concrete ditch)
$= 3.55$ft (earth ditch)

n = 0.015 (concrete ditch)
0.06 (earth ditch)

V = 2.67 ft/s (concrete ditch)
= 2.15 ft/s (earth ditch)

Because of the complexity of the system it uncertain the amount of time that water flows through the ditches therefore the volume is unable to be accurately calculated.

3. If an actual measurement was taken, provide the following:

Date of Measurement	Who made the measurement	Measurement method	Measured quantity of water
n/a	n/a	n/a	n/a

Attach measurements notes

System Information:

Provide the following information concerning the diversion and delivery system. Trace the flow of water from the point of diversion/appropriation to the place of use.

1. Pump information

Brand	Model	Serial Number	Type (centrifugal, turbine or submersible)	Intake size	Discharge size
GOULD	9RCHC	n/a	TURBINE	6"	8"

2. Motor information

Brand	Model	Horsepower	Max RPM	Voltage
U.S.	326TP	50	1780	460

3. Meter information (if required in permit or transfer final order)

Make	Serial #	Condition (working or not)	Current meter reading	Notes
McCROMETER	00-1898-8	WORKING	832.9	N/A

4. Measurement device description

Device description	Condition (working or not)	Notes
Flow Meter	n/a	n/a

5. Measured pump capacity (using meter if meter was present and system was operating)

Initial meter reading	Ending meter reading	Duration of time observed	Total pump output
600 GPM	450 GPM	4 Hours	450 gpm

6. Theoretical pump capacity

Horsepower	Operating psi	Lift from source to pump *If a well, the water level during pumping (see pump test results)	Lift from pump to place of use	Total pump output
50	17 psi	242.2 feet	-183 feet	

7. Provide pump calculations in the box below:

$$Q_{pump} = \left[\frac{(Hp)(conv.factor)}{(lift + pressure)}\right]$$

conversion factor = 7.04

Hp = 50 horse power
Lift + pressure = 285.40 feet
1 GPM = 0.0022333 cfs

Q = 1.23 cfs = 552.26 GPM

**This box can be deleted from the form

$$Q_{pump} = \frac{(Hp)(550 \text{ ft lb/sec/Hp})(efficiency)}{(62.4 \text{ lb/cu ft})(lift + press) \text{ in feet}} = \frac{(efficiency)(Hp)}{\text{total head in feet}} = cfs$$

or

$$Q_{pump} = \frac{(Hp)(\text{conversion factor})}{(\text{lift + pressure}) \textit{ total head in feet}} = cfs$$

Conversion factors:

Centrifugal Pump, 75% eff. $\frac{(550 \text{ ft lb/sec/Hp})(.75)}{(62.4 \text{ lb/cu ft})} = 6.61 \text{ ft}^4\text{/sec/Hp}$

Turbine & Submersible Pumps, 80% eff. $\frac{(550 \text{ ft lb/sec/Hp})(.80)}{(62.4 \text{ lb/cu ft})} = 7.04 \text{ ft}^4\text{/sec/Hp}$

Efficiencies have been assumed to be 75% for centrifugal pump installations and 80% for turbine or submersible pumps. See the list below of converted psi's to feet of head. These figures account for minor friction losses. If the system involves unusually long pipelines friction losses should be accounted for by using standard charts and formulas.

Refer to the conversion table below to compute PSI to head for pump pressure in feet.

[(psi/.433)(1.1) = head (in feet/psi) = 2.54 feet head/psi]

PSI	HEAD	PSI	HEAD
25	63.5	55	139.7
30	76.2	60	152.4
35	88.9	65	165.1
40	101.6	70	177.8
45	114.3	75	190.5
50	127.0	80	203.2

8. Mainline information

Mainline size	Length	Type of pipe	Buried or above ground
10"	1,740 ft	PVC	Buried
8"	4,806 ft	PVC	Buried

9. Lateral or handline information

Lateral or handline size	Length	Type of pipe	Buried or above ground
15"	4,583 ft	PVC	Buried
12"	3,506 ft	PVC	Buried
10"	2,508 ft	PVC	Buried
8"	3,655 ft	PVC	Buried
8" Gated	1,724 ft	PVC	Above ground

10. Sprinkler information Make and model:

Make	Model	Size	Operating psi	Sprinkler output	Maximum number used	Total sprinkler output
Nelson	R3000	Varies from 14 to 33	Varies from 15.04 to 16.68 psi	Varies from 1.35 to 7.36 gpm	107	$\frac{(4.684)(107)}{448.8} =$ 1.117 cfs
Nelson	R3000	Varies from 14 to 34	Varies from 15.13 to 16.80 psi	Varies from 1.37 to 7.85 gpm	151	$\frac{(4.769)(151)}{448.8} =$ 1.605 cfs
Nelson	S3000	Varies from 12 to 40	Varies from 10.25 to 16.81 psi	Varies from 1.01 to 8.96 gpm	113	$\frac{(5.546)(113)}{448.8} =$ 1.396 cfs
Nelson	S3000	Varies from 12 to 31	Varies from 15.27 to 16.75 psi	Varies from 1.01 to 7.42 gpm	72	$\frac{(4.495)(72)}{448.8} =$ 0.721 cfs
Nelson	S3000	Varies from 12 to 31	Varies from 15.27 to 16.75 psi	Varies from 1.01 to 7.42 gpm	72	$\frac{(4.495)(72)}{448.8} =$ 0.721 cfs
Nelson	P85AS	11/32 TB	Not provided	48.83 gpm	1	0.109 cfs
Nelson	P85AS	11/32 TB	31.77	38.15 gpm	2	0.1700 cfs
Nelson	R3000	Varies from 14 to 42	14.81 to 16.68 psi	Varies from 1.35 to 9.18 gpm	114	$\frac{(4.685)(107)}{448.8} =$ 1.19 cfs
Nelson	S3000	Varies from	15.22 to 16.79 psi	Varies from 1.01 to 7.87	69	$\frac{(4.542)(69)}{448.8} =$

		12 to 34		gpm		0.698 cfs
Dual Nelson	P85AS	11/32 TB	32.02 psi	38.31 gpm	1	0.085 cfs

Refer to the chart of sprinkler output at various pressures for most nozzle sizes attached to this document.

$$Q_{\text{sprinklers}} = \frac{(\text{max \# heads})(\text{gpm/head})}{448.8\ \text{gpm/cfs}} = \text{cfs}$$

13. **Additional notes or comments related to the system:**

III. CONDITIONS

Please pay special attention to this section. All conditions contained in the permit or transfer final order shall be addressed. Reports that do not address all performance related conditions will be returned.

1. **Time Limits:**

a. Permits or transfer Final Orders contain any or all of the following dates; the date when the actual construction work was to begin, the date when the construction was to be completed, and the date when the complete application of water to the proposed use is to be completed by. These dates may be referred to as ABC dates. Describe how the water user has complied with each of the development timelines established in the permit or transfer final order:

	Dates from permit or transfer final order	Date accomplished	Description of actions taken by water user to comply with the time limits
Begin construction	11/13/1999	n/a	All wells drilled & finished by 1996 previous Water Right.
Complete construction	n/a	n/a	None specified
Complete application of water	10/01/2003	n/a	Existing System & additional Pivots

2. **Initial Water Level Measurements:**
**If the Claim is for surface water or a reservoir, or if the water user was not required to submit static water level measurements, items b through e relating to this section can be deleted.

a. Was the water user required to submit an initial static water level measurement? YES

b. What month was the initial measurement to be taken in? March

c. Did an authorized individual (as stated in the permit or transfer final order) make the initial static water level measurement in the month required?
YES

d. If "YES", was the measurement submitted to the Department? YES

e. If the initial measurement not been submitted, provide that measurement now if available:

Date of measurement	Who made measurement	Method	Measurement
n/a	n/a	n/a	n/a

3. **Annual Static Water Level Measurements:**
**If the Claim is for surface water or a reservoir, or if the water user was not required to submit static water level measurements, items b through e relating to this section can be deleted.

a. Was the water user required to submit annual static water level measurements? YES

b. In the box below, provide the month in which the static water level was to be made:

March

c. Were the static water level measurements taken in the month required? YES

d. If "YES", were those measurements submitted to the Department? YES

e. If the annual measurements were not submitted, provide the measurements now in the box below:

Year	Month	Measurement made by	Measurement
n/a	n/a	n/a	n/a

4. **Measurement, recording, and reporting conditions:**

a. Does the permit or transfer final order require the installation of a meter or approved measuring device?
YES

If a meter or approved measuring device was required, the COBU map must indicate the location of the device in relation to the point of diversion or appropriation.

**If "NO", items b through g relating to this section can be deleted.

b. Has a meter been installed? YES

c. Provide the date the meter was installed:

March 2000

d. If a meter has not been installed, has a suitable measuring device been installed and approved by the Department? N/A

e. If "YES", provide a copy of the letter approving the device, if available. If the letter is not available provide the name and title of the Water Resources Department employee approving the measuring device, and the approximate date of the approval:

Name	Title	Approximate date
n/a	n/a	n/a

f. Is the water user required to report the water use to the Department? YES

g. Have the reports been submitted? YES

If the reports have not been submitted, attach a copy of the reports if available.

5. **Fish Screening and/or By-pass Devices**

a. Are any points of diversion required to be screened and/or have a by-pass device to prevent fish from entering the point of diversion? NO

If fish screening and/or by-pass devices were required, the COBU map must indicate their location in relation to the point of diversion.

**If "NO", items b through i relating to this section can be deleted

j. If not, is the approval letter attached to the Claim? N/A

k. Has the by-pass device been installed? N/A

l. Describe the by-pass device:

When installed	By whom	Approved by ODFW	Description
n/a	n/a	n/a	n/a

6. **Pump Test** (Required for ground permits prior to issuance of a certificate, but not a requirement of permit development)

a. Did the permit require the submittal of a pump test? YES

b. Has the pump test been previously submitted to the Department? YES

c. Has the pump test been approved by the Department? NOT SURE

d. If no, is the pump test attached to this Claim? YES

7. **Other Permit Conditions** (examples: special well construct standards, water conservation plans, no obstructions to fish without a fishway, etc.; number as appropriate.)

None Specified

II. Points of Diversion/Appropriation and Place of Use

For each point of diversion or appropriation, provide the following information. If the claim is for more than one point of diversion/appropriation, copy and complete this section for each point of diversion or appropriation.

1. Provide a general narrative description of the distribution works. This description must trace the water system from the point of diversion or appropriation to and include the place of use:

Well #19 is the point of appropriation. The well pump delivers water to an 8" PVC. The 8"PVC then tees into a 15" PVC which then tees again and either delivers water north to the 8" gated pipe or to the New or 138 degree pivot, or easterly to another tee which supplies water directly to Hammack pivot #1 or to a dredge which then delivers water by means of gravity flow PVC to the 138 degree pivot and to the 5.0 acres irrigated with 8" gated pipe (see map) and/or to Hammack pivots 2, 3, and 4 and/or to the sump through the combination of concrete and earth ditches. The water from the sump is pumped to the south pivot. The individual pivots and 8" gated pipe deliver water to the fields.

2. Point of diversion/appropriation name or number (correspond to map):

Point of diversion/appropriation name or number (correspond to map)	Well log ID # for all work performed on the well (if applicable)	Well tag # (if applicable)
Well #19	Log included	n/a
	19	

Attach each well log available for the well (include the log for the original well and any subsequent alterations, reconstructions, and deepenings)

3. Point of diversion/appropriation source and, if from surface water, the tributary:

Source	Tributary to
Ground Water	n/a

4. Point of diversion/appropriation location:

(DLC, Government Lot, ¼ ¼, Section, Township, Range)	Reference to a recognized public land survey corner by distance and bearing or by coordinates
SW ¼ NW ¼, Sec. 7, T16S, R43E, WM.	2286 ft. south, 24 ft. east of the NW Corner of Sec.7

5. Actual use(s), period of use, and rate for each use:

Uses	If irrigation, list crop type	When water is used	Rate for use
Irrigation	Grain, Alfalfa, Corn	April thru October	1.79 cfs

Total Quantity of Water **1.17 cfs**

6. Place of use for the point of diversion or appropriation:

DLC	Gov lot	1/4 1/4	Section	Township	Range	Use	# of primary acres	# of supplemental acres
		SESE	6	16S	43E	IRR	0	5.0
		NENE	7	16S	43E	IRR	6.4	26.7
		SENE	7	16S	43E	IRR	0	3.8
		NWNW	8	16S	43E	IRR	0	15.2
		NENW	8	16S	43E	IRR	5.9	0
		SWNE	8	16S	43E	IRR	0	1.6

		SENW	8	16S	43E	IRR	3.4	9.0
		SWNW	8	16S	43E	IRR	0	12.2
		NWSW	9	16S	43E	IRR	26.3	0
		NESW	9	16S	43E	IRR	9.5	0
		NWSE	9	16S	43E	IRR	17.7	0
		SWSE	9	16S	43E	IRR	33.2	0
		SESW	9	16S	43E	IRR	9.8	0
		SWSW	9	16S	43E	IRR	17.9	0
		NWNW	16	16S	43E	IRR	31.3	0
		NENW	16	16S	43E	IRR	29.5	0
		NWNE	16	16S	43E	IRR	40.0	0
		NENE	16	16S	43E	IRR	9.5	0
		SENE	16	16S	43E	IRR	1.2	0
		SWNE	16	16S	43E	IRR	16.6	0
		SENW	16	16S	43E	IRR	18.4	0
		SWNW	16	16S	43E	IRR	30.9	0
		NENE	17	16S	43E	IRR	1.5	0
		SENE	17	16S	43E	IRR	1.6	0
		NESW	17	16S	43E	IRR	2.9	0
		NESE	17	16S	43E	IRR	1.3	0
		SESE	17	16S	43E	IRR	4.3	0
		SWSE	17	16S	43E	IRR	4.4	0
		SESW	17	16S	43E	IRR	1.4	0

Total Acres Irrigated **397.2 acres**

**If the appropriation is not from ground water (well or sump), this section, items 1-5, can be deleted.

1. Describe the access port (type and location) or other means to measure the water level in the well in the box below:

1 ½" access port

2. If well logs are not available, provide as much of the following information as possible:

Casing Diameter	Casing Depth	Total Depth	Completion Date of Original Well	Completion Dates of Alterations	Who the well was drilled for	Well drilled by
12"	283'	310'	4/12-1996	n/a	Gum Creek Farms, Inc.	Herbert Bowman

In addition to the information requested in item "2" above, provide any other information which may help the Department locate any well logs associated with this appropriation.

See attached well logs & measuring reports

**If the appropriation is not from a sump, the following section, items 3-4, can be deleted. Construction standards for sumps can be found in OAR 690-210-0400.

3. If the appropriation involves a **SUMP**, provide the following information for each **SUMP**:

Length	Width	Average diameter	Maximum depth	Surface area (in acres)	Volume in cubic feet or acre feet
350'	150'	n/a	10'+	1.21	525,000 cf

4. If the sump is curbed constructed with watertight surface curbing, describe the curbing in the table below:

Curbing material (concrete, concrete tiles, or steel)	If concrete, provide the thickness of the wall
n/a	n/a

5. Provide sump volume calculations in the box below:

(150') x (350') x (10') = 525,000 cubic feet

Reservoir Data

**If this claim is not for a reservoir, or the system does not involve a reservoir as part of the distribution system, this section, items 1-7, can be deleted.

Storage tank data

**If this system does not include a storage tank as part of the distribution system, this section, item 1, can be deleted.

Gravity flow pipe (The Department typically uses the Hazen-William's formula for a gravity flow pipe system)

**If this claim does not rely on a gravity flow pipe to convey the water as part of the distribution system, this section, items 1-3, can be deleted.

1. If the system involves a gravity flow pipe, complete the table below.

Pipe size	Pipe type	"C" factor	Amount of fall	Length of pipe	Slope	Computed rate of water flow
15"	PVC	140	90'	4,583'	0.01964	13.06 cfs
12"	PVC	140	10'	1,836'	0.00545	3.63 cfs
10"	PVC	140	20'	707'	0.02829	5.51 cfs
10"	PVC	140	10'	1801'	0.00555	2.29 cfs
8"	PVC	140	20'	1505'	0.01329	1.89 cfs
8"	PVC	140	5'	926'	0.00540	1.25 cfs
8"	PVC	140	10'	860'	0.01163	1.89 cfs
8"	PVC	140	15'	884'	0.0170	2.31 cfs
8"	PVC	140	5'	406'	0.0123	1.94 cfs
8"	PVC	140	5'	798'	0.00627	1.35 cfs
8"	PVC	140	10'	1670'	0.006	1.32 cfs

2. Provide calculations in the box below:

$V = 1.318 C_{HW} R_h^{0.63} S^{0.54}$

$C_{HW} = 140$ (pvc)
$R_h = D/4$ (circular pipe in feet)
S = Slope

$Q = VA$; $A = \pi d^2/4$;

$V_{15" PVC}$ = **10.62 ft/s** $Q_{15" PVC}$ = **13.06 cfs**

$V_{12" PVC}$ = **4.62 ft/s** $Q_{12" PVC}$ = **3.63 cfs**

$V_{10" PVC}$ = **10.02 ft/s** $Q_{10" PVC}$ = **5.51 cfs**

$V_{10" PVC}$ = **4.16 ft/s** $Q_{10" PVC}$ = **2.29 cfs**

$V_{8" PVC}$ = **5.39 ft/s** $Q_{8" PVC}$ = **1.89 cfs**

$V_{8" PVC}$ = **3.56 ft/s** $Q_{8" PVC}$ = **1.25 cfs**

$V_{8" PVC}$ = **5.39 ft/s** $Q_{8" PVC}$ = **1.89 cfs**

$V_{8" PVC}$ = **6.61 ft/s** $Q_{8" PVC}$ = **2.31 cfs**

$V_{8" PVC}$ = **5.55 ft/s** $Q_{8" PVC}$ = **1.94 cfs**

$V_{8" PVC}$ = **3.86 ft/s** $Q_{8" PVC}$ = **1.35 cfs**

$V_{8" PVC}$ = **3.77 ft/s** $Q_{8" PVC}$ = **1.32 cfs**

3. If an actual measurement was taken, provide the following:

Date of Measurement	Who made the measurement	Measurement method	Measured quantity of water
n/a	n/a	n/a	n/a

Attach measurements notes

Gravity flow canal or ditch (The Department typically uses Manning's formula for canals and ditches)

**If this claim does not rely on a gravity flow canal or ditch to convey the water as part of the distribution system, this section, items 1-3, can be deleted.

1. If the system involves a gravity canal or ditch, complete the table below.

Canal or ditch type (material)	Top width of canal or ditch	Bottom width of canal or ditch	Depth	"N" factor	Amount of fall	Length of canal/ditch	Slope	Computed volume
Earth Ditch	16'	6'	4'	0.06	3'	2162'	0.138%	See Calcs
Concrete Ditch	4.8'	1.2'	2'	0.015	3'	3668'	0.0818%	See Calcs

2. Provide calculations in the box below:

$$V = \left(\frac{1.49}{n}\right)\left(R_h^{\frac{2}{3}}\right)\left(S^{1/2}\right) \qquad R_h = A/P$$

= 0.91ft (concrete ditch)
= 3.55ft (earth ditch)

n = 0.015 (concrete ditch)
0.06 (earth ditch)

V = 2.67 ft/s (concrete ditch)
= 2.15 ft/s (earth ditch)

Because of the complexity of the system it uncertain the amount of time that water flows through the ditches therefore the volume is unable to be accurately calculated.

3. If an actual measurement was taken, provide the following:

Date of Measurement	Who made the measurement	Measurement method	Measured quantity of water
n/a	n/a	n/a	n/a

Attach measurements notes

System Information:

Provide the following information concerning the diversion and delivery system. Trace the flow of water from the point of diversion/appropriation to the place of use.

1. Pump information

Brand	Model	Serial Number	Type (centrifugal, turbine or submersible)	Intake size	Discharge size
GOULD	11CLC	n/a	TURBINE	8"	8"

2. Motor information

Brand	Model	Horsepower	Max RPM	Voltage
U.S.	324TPH	40	1780	460

3. Meter information (if required in permit or transfer final order)

Make	Serial #	Condition (working or not)	Current meter reading	Notes
McCROMETER	00-1899-8	WORKING	033.7	N/A

4. Measurement device description

Device description	Condition (working or not)	Notes
Flow Meter	N/A	N/A

5. Measured pump capacity (using meter if meter was present and system was operating)

Initial meter reading	Ending meter reading	Duration of time observed	Total pump output
460 GPM	390 GPM	4 Hours & 5 Minutes	390 gpm

6. Theoretical pump capacity

Horsepower	Operating psi	Lift from source to pump *If a well, the water level during pumping (see pump test results)	Lift from pump to place of use	Total pump output
40	22 psi	139.6 feet	-146 feet	644.80 gpm

7. Provide pump calculations in the box below:

$$Q_{pump} = \left[\frac{(Hp)(conv.factor)}{(lift + pressure)}\right]$$

conversion factor = 7.04

Hp = 50 horse power
Lift + pressure = 195.5 feet
1 GPM = 0.0022333 cfs

Q = 1.44 cfs = 644.80 GPM

**This box can be deleted from the form

$$Q_{pump} = \frac{(Hp)(550 \text{ ft lb/sec/Hp})(efficiency)}{(62.4 \text{ lb/cu ft})(\text{lift + press in feet})} = \frac{(efficiency)(Hp)}{\text{total head in feet}} = \text{cfs}$$

or

$$Q_{pump} = \frac{(Hp)(\text{conversion factor})}{(\text{lift + pressure}) \textit{ total head in feet}} = \text{cfs}$$

Conversion factors:

Centrifugal Pump, 75% eff. $\frac{(550 \text{ ft lb/sec/Hp})(.75)}{(62.4 \text{ lb/cu ft})} = 6.61 \text{ ft}^4\text{/sec/Hp}$

Turbine & Submersible Pumps, 80% eff. $\frac{(550 \text{ ft lb/sec/Hp})(.80)}{(62.4 \text{ lb/cu ft})} = 7.04 \text{ ft}^4\text{/sec/Hp}$

Efficiencies have been assumed to be 75% for centrifugal pump installations and 80% for turbine or submersible pumps. See the list below of converted psi's to feet of head. These figures account for minor friction losses. If the system involves unusually long pipelines friction losses should be accounted for by using standard charts and formulas.

Refer to the conversion table below to compute PSI to head for pump pressure in feet.

[(psi/.433)(1.1) = head (in feet/psi) = 2.54 feet head/psi]

PSI	HEAD	PSI	HEAD
25	63.5	55	139.7
30	76.2	60	152.4
35	88.9	65	165.1
40	101.6	70	177.8
45	114.3	75	190.5
50	127.0	80	203.2

8. Mainline information

Mainline size	Length	Type of pipe	Buried or above ground
15"	8,810 ft	PVC	Buried
12"	906 ft	PVC	Buried
10"	7,343 ft	PVC	Buried
8"	6,412 ft	PVC	Buried

9. Lateral or handline information

Lateral or handline size	Length	Type of pipe	Buried or above ground
15"	4,583 ft	PVC	Buried
12"	3,506 ft	PVC	Buried
10"	2,508 ft	PVC	Buried
8"	3,655 ft	PVC	Buried
8" Gated	1,724 ft	PVC	Above Ground

10. Sprinkler information Make and model:

Make	Model	Size	Operating psi	Sprinkler output	Maximum number used	Total sprinkler output
Nelson	R3000	Varies from 14 to 33	Varies from 15.04 to 16.68 psi	Varies from 1.35 to 7.36 gpm	107	$\frac{(4.684)(107)}{448.8} =$ 1.117 cfs
Nelson	R3000	Varies from 14 to 34	Varies from 15.13 to 16.80 psi	Varies from 1.37 to 7.85 gpm	151	$\frac{(4.769)(151)}{448.8} =$ 1.605 cfs
Nelson	R3000	Varies from 14 to 44	Varies from 14.62 to 16.65 psi	Varies from 1.35 to 13.01 gpm	88	$\frac{(7.23)(88)}{448.8} =$ 1.418 cfs
Nelson	S3000	Varies from 12 to 40	Varies from 10.25 to 16.81 psi	Varies from 1.01 to 8.96 gpm	113	$\frac{(5.546)(113)}{448.8} =$ 1.396 cfs
Nelson	S3000	Varies from 12 to 31	Varies from 15.27 to 16.75 psi	Varies from 1.01 to 7.42 gpm	72	$\frac{(4.495)(72)}{448.8} =$ 0.721 cfs
Nelson	S3000	Varies from 12 to 31	Varies from 15.27 to 16.75 psi	Varies from 1.01 to 7.42 gpm	72	$\frac{(4.495)(72)}{448.8} =$ 0.721 cfs
Nelson	P85AS	11/32 TB	Not provided	48.83 gpm	1	0.109 cfs
Nelson	P85AS	3/8 TB	62.92 psi	63.80 gpm	1	0.1422 cfs
Nelson	P85AS	11/32 TB	31.77	38.15 gpm	2	0.1700 cfs

Nelson	S3000	Varies from 12 to 34	15.22 to 16.79 psi	Varies from 1.01 to 7.87 gpm	69	$\frac{(4.542)(69)}{448.8} =$ 0.698 cfs
Dual Nelson	P85AS	11/32 TB	32.02 psi	38.31 gpm	1	0.085 cfs

Refer to the chart of sprinkler output at various pressures for most nozzle sizes attached to this document.

$$Q_{sprinklers} = \frac{(\text{max \# heads})(\text{gpm/head})}{448.8\ gpm/cfs} = \text{cfs}$$

14. **Additional notes or comments related to the system:**

III. CONDITIONS

Please pay special attention to this section. All conditions contained in the permit or transfer final order shall be addressed. Reports that do not address all performance related conditions will be returned.

1. **Time Limits:**

a. Permits or transfer Final Orders contain any or all of the following dates; the date when the actual construction work was to begin, the date when the construction was to be completed, and the date when the complete application of water to the proposed use is to be completed by. These dates may be referred to as ABC dates. Describe how the water user has complied with each of the development timelines established in the permit or transfer final order:

	Dates from permit or transfer final order	Date accomplished	Description of actions taken by water user to comply with the time limits
Begin construction	11/13/1999	n/a	All wells drilled & finished by 1996 previous Water Right
Complete construction	n/a	n/a	None Specified
Complete application of water	10/01/2003	n/a	Existing System and Additional Pivots

2. **Initial Water Level Measurements:**
**If the Claim is for surface water or a reservoir, or if the water user was not required to submit static water level measurements, items b through e relating to this section can be deleted.

a. Was the water user required to submit an initial static water level measurement? YES

b. What month was the initial measurement to be taken in? March

c. Did an authorized individual (as stated in the permit or transfer final order) make the initial static water level measurement in the month required?

YES

d. If "YES", was the measurement submitted to the Department? YES

e. If the initial measurement not been submitted, provide that measurement now if available:

Date of measurement	Who made measurement	Method	Measurement
n/a	n/a	n/a	n/a

3. **Annual Static Water Level Measurements:**

**If the Claim is for surface water or a reservoir, or if the water user was not required to submit static water level measurements, items b through e relating to this section can be deleted.

a. Was the water user required to submit annual static water level measurements? YES

b. In the box below, provide the month in which the static water level was to be made:

March

c. Were the static water level measurements taken in the month required? YES

d. If "YES", were those measurements submitted to the Department? YES

e. If the annual measurements were not submitted, provide the measurements now in the box below:

Year	Month	Measurement made by	Measurement
n/a	n/a	n/a	n/a

4. **Measurement, recording, and reporting conditions:**

a. Does the permit or transfer final order require the installation of a meter or approved measuring device?

YES

If a meter or approved measuring device was required, the COBU map must indicate the location of the device in relation to the point of diversion or appropriation.

**If "NO", items b through g relating to this section can be deleted.

b. Has a meter been installed? YES

c. Provide the date the meter was installed:

March 2000

d. If a meter has not been installed, has a suitable measuring device been installed and approved by the Department? N/A

e. If "YES", provide a copy of the letter approving the device, if available. If the letter is not available provide the name and title of the Water Resources Department employee approving the measuring device, and the approximate date of the approval:

Name	Title	Approximate date
n/a	n/a	n/a

f. Is the water user required to report the water use to the Department? YES

g. Have the reports been submitted? YES

If the reports have not been submitted, attach a copy of the reports if available.

5. **Fish Screening and/or By-pass Devices**

a. Are any points of diversion required to be screened and/or have a by-pass device to prevent fish from entering the point of diversion? NO

If fish screening and/or by-pass devices were required, the COBU map must indicate their location in relation to the point of diversion.

**If "NO", items b through i relating to this section can be deleted

j. If not, is the approval letter attached to the Claim? N/A

k. Has the by-pass device been installed? N/A

l. Describe the by-pass device:

When installed	By whom	Approved by ODFW	Description
n/a	n/a	n/a	n/a

6. **Pump Test** (Required for ground permits prior to issuance of a certificate, but not a requirement of permit development)

a. Did the permit require the submittal of a pump test? YES

b. Has the pump test been previously submitted to the Department? YES

c. Has the pump test been approved by the Department? NOT SURE

d. If no, is the pump test attached to this Claim? YES

7. **Other Permit Conditions** (examples: special well construct standards, water conservation plans, no obstructions to fish without a fishway, etc.; number as appropriate.)

None Specified

II. Points of Diversion/Appropriation and Place of Use

For each point of diversion or appropriation, provide the following information. If the claim is for more than one point of diversion/appropriation, copy and complete this section for each point of diversion or appropriation.

1. Provide a general narrative description of the distribution works. This description must trace the water system from the point of diversion or appropriation to and include the place of use:

Well #20 is the point of appropriation. The well pump delivers water to a 10" PVC. The 10"PVC then tees into a 15" PVC which then tees again and either delivers water north to the 8" gated pipe or to the New or 138 degree pivot, or easterly to another tee which supplies water directly to Hammack pivot #1 or to a dredge which then delivers water by means of gravity flow PVC to the 138 degree pivot and to the 5.0 acres irrigated with 8" gated pipe (see map) and/or to Hammack pivots 2, 3, and 4 and/or to the sump through the combination of concrete and earth ditches. Water from the sump is pumped to the south pivot. The individual pivots and 8" gated pipe deliver water to the fields.

2. Point of diversion/appropriation name or number (correspond to map):

Point of diversion/appropriation name or number (correspond to map)	Well log ID # for all work performed on the well (if applicable)	Well tag # (if applicable)
Well #20	Log included	n/a
	L06224	

Attach each well log available for the well (include the log for the original well and any subsequent alterations, reconstructions, and deepenings)

3. Point of diversion/appropriation source and, if from surface water, the tributary:

Source	Tributary to
Ground Water	n/a

4. Point of diversion/appropriation location:

(DLC, Government Lot, ¼ ¼, Section, Township, Range)	Reference to a recognized public land survey corner by distance and bearing or by coordinates
SW ¼ NW ¼, Sec. 7, T16S, R43E, WM.	1588 ft. south, 50 ft. east of the NW Corner of Sec. 7

5. Actual use(s), period of use, and rate for each use:

Uses	If irrigation, list crop type	When water is used	Rate for use
Irrigation	Alfalfa, Grain, Corn	April thru October	2.11 cfs

Total Quantity of Water **1.17 cfs**

6. Place of use for the point of diversion or appropriation:

DLC	Gov lot	1/4 1/4	Section	Township	Range	Use	# of primary acres	# of supplemental acres
		SESE	6	16S	43E	IRR	0	5.0
		NENE	7	16S	43E	IRR	6.4	26.7
		SENE	7	16S	43E	IRR	0	3.8
		NWNW	8	16S	43E	IRR	0	15.2
		NENW	8	16S	43E	IRR	5.9	0
		SWNE	8	16S	43E	IRR	0	1.6

		SENW	8	16S	43E	IRR	3.4	9.0
		SWNW	8	16S	43E	IRR	0	12.2
		NWSW	9	16S	43E	IRR	26.3	0
		NESW	9	16S	43E	IRR	9.5	0
		NWSE	9	16S	43E	IRR	17.7	0
		SWSE	9	16S	43E	IRR	33.2	0
		SESW	9	16S	43E	IRR	9.8	0
		SWSW	9	16S	43E	IRR	17.9	0
		NWNW	16	16S	43E	IRR	31.3	0
		NENW	16	16S	43E	IRR	29.5	0
		NWNE	16	16S	43E	IRR	40.0	0
		NENE	16	16S	43E	IRR	9.5	0
		SENE	16	16S	43E	IRR	1.2	0
		SWNE	16	16S	43E	IRR	16.6	0
		SENW	16	16S	43E	IRR	18.4	0
		SWNW	16	16S	43E	IRR	30.9	0
		NENE	17	16S	43E	IRR	1.5	0
		SENE	17	16S	43E	IRR	1.6	0
		NESW	17	16S	43E	IRR	2.9	0
		NESE	17	16S	43E	IRR	1.3	0
		SESE	17	16S	43E	IRR	4.3	0
		SWSE	17	16S	43E	IRR	4.4	0
		SESW	17	16S	43E	IRR	1.4	0

Total Acres Irrigated **398.4 acres**

Groundwater Source Information (Well and Sump)

**If the appropriation is not from ground water (well or sump), this section, items 1-5, can be deleted.

1. Describe the access port (type and location) or other means to measure the water level in the well in the box below:

1 ½" access port

2. If well logs are not available, provide as much of the following information as possible:

Casing Diameter	Casing Depth	Total Depth	Completion Date of Original Well	Completion Dates of Alterations	Who the well was drilled for	Well drilled by
16"	19'	310'	11-19-1996	n/a	Gum Creek Farms, Inc.	Herbert Bowman

In addition to the information requested in item "2" above, provide any other information which may help the Department locate any well logs associated with this appropriation.

See attached well logs & measuring reports

**If the appropriation is not from a sump, the following section, items 3-4, can be deleted. Construction standards for sumps can be found in OAR 690-210-0400.

3. If the appropriation involves a **SUMP**, provide the following information for each **SUMP**:

Length	Width	Average diameter	Maximum depth	Surface area (in acres)	Volume in cubic feet or acre feet
350'	150'	n/a	10'+	1.21	525,000 cf

4. If the sump is curbed constructed with watertight surface curbing, describe the curbing in the table below:

Curbing material (concrete, concrete tiles, or steel)	If concrete, provide the thickness of the wall
n/a	n/a

5. Provide sump volume calculations in the box below:

(150') x (350') x (10') = 525,000 cubic feet

Reservoir Data

**If this claim is not for a reservoir, or the system does not involve a reservoir as part of the distribution system, this section, items 1-7, can be deleted.

Storage tank data

**If this system does not include a storage tank as part of the distribution system, this section, item 1, can be deleted.

Gravity flow pipe (The Department typically uses the Hazen-William's formula for a gravity flow pipe system)

**If this claim does not rely on a gravity flow pipe to convey the water as part of the distribution system, this section, items 1-3, can be deleted.

1. If the system involves a gravity flow pipe, complete the table below.

Pipe size	Pipe type	"C" factor	Amount of fall	Length of pipe	Slope	Computed rate of water flow
15"	PVC	140	90'	4,583'	0.01964	13.06 cfs
12"	PVC	140	10'	1,836'	0.00545	3.63 cfs
10"	PVC	140	20'	707'	0.02829	5.51 cfs
10"	PVC	140	10'	1801'	0.00555	2.29 cfs
8"	PVC	140	20'	1505'	0.01329	1.89 cfs
8"	PVC	140	5'	926'	0.00540	1.25 cfs
8"	PVC	140	10'	860'	0.01163	1.89 cfs
8"	PVC	140	15'	884'	0.0170	2.31 cfs
8"	PVC	140	5'	406'	0.0123	1.94 cfs
8"	PVC	140	5'	798'	0.00627	1.35 cfs
8"	PVC	140	10'	1670'	0.006	1.32 cfs

2. Provide calculations in the box below:

$V = 1.318 C_{HW} R_h^{0.63} S^{0.54}$

$C_{HW} = 140$ (pvc)
$R_h = D/4$ (circular pipe in feet)
$S =$ Slope

$Q = VA$; $A = \pi d^2/4$;

$V_{15" PVC} =$ **10.62 ft/s** $Q_{15" PVC} =$ **13.06 cfs**

$V_{12" PVC} =$ **4.62 ft/s** $Q_{12" PVC} =$ **3.63 cfs**

$V_{10" PVC} =$ **10.02 ft/s** $Q_{10" PVC} =$ **5.51 cfs**

$V_{10" PVC} =$ **4.16 ft/s** $Q_{10" PVC} =$ **2.29 cfs**

$V_{8" PVC} =$ **5.39 ft/s** $Q_{8" PVC} =$ **1.89 cfs**

$V_{8" PVC} =$ **3.56 ft/s** $Q_{8" PVC} =$ **1.25 cfs**

$V_{8" PVC} =$ **5.39 ft/s** $Q_{8" PVC} =$ **1.89 cfs**

$V_{8" PVC} =$ **6.61 ft/s** $Q_{8" PVC} =$ **2.31 cfs**

$V_{8" PVC} =$ **5.55 ft/s** $Q_{8" PVC} =$ **1.94 cfs**

$V_{8" PVC} =$ **3.86 ft/s** $Q_{8" PVC} =$ **1.35 cfs**

$V_{8" PVC} =$ **3.77 ft/s** $Q_{8" PVC} =$ **1.32 cfs**

3. If an actual measurement was taken, provide the following:

Date of Measurement	Who made the measurement	Measurement method	Measured quantity of water
n/a	n/a	n/a	n/a

Attach measurements notes

Gravity flow canal or ditch (The Department typically uses Manning's formula for canals and ditches)

**If this claim does not rely on a gravity flow canal or ditch to convey the water as part of the distribution system, this section, items 1-3, can be deleted.

1. If the system involves a gravity canal or ditch, complete the table below.

Canal or ditch type (material)	Top width of canal or ditch	Bottom width of canal or ditch	Depth	"N" factor	Amount of fall	Length of canal/ditch	Slope	Computed volume
Earth Ditch	16'	6'	4'	0.06	3'	2162'	0.138%	See Calcs
Concrete Ditch	4.8'	1.2'	2'	0.015	3'	3668'	0.0818%	See Calcs

2. Provide calculations in the box below:

$$V = \left(\frac{1.49}{n}\right)\left(R_h^{\frac{2}{3}}\right)\left(S^{1/2}\right)$$

$R_h = A/P$

= 0.91ft (concrete ditch)
= 3.55ft (earth ditch)

n = 0.015 (concrete ditch)
0.06 (earth ditch)

V = 2.67 ft/s (concrete ditch)
= 2.15 ft/s (earth ditch)

Because of the complexity of the system it uncertain the amount of time that water flows through the ditches therefore the volume is unable to be accurately calculated.

3. If an actual measurement was taken, provide the following:

Date of Measurement	Who made the measurement	Measurement method	Measured quantity of water
n/a	n/a	n/a	n/a

Attach measurements notes

System Information:

Provide the following information concerning the diversion and delivery system. Trace the flow of water from the point of diversion/appropriation to the place of use.

1. Pump information

Brand	Model	Serial Number	Type (centrifugal, turbine or submersible)	Intake size	Discharge size
GOULD	11CHC	n/a	TURBINE	8"	8"

2. Motor information

Brand	Model	Horsepower	Max RPM	Voltage
U.S.	324TP	50	1780	460

3. Meter information (if required in permit or transfer final order)

Make	Serial #	Condition (working or not)	Current meter reading	Notes
McCROMETER	00-1901-10	WORKING	861.3	N/A

4. Measurement device description

Device description	Condition (working or not)	Notes
Flow Meter	N/A	N/A

5. Measured pump capacity (using meter if meter was present and system was operating)

Initial meter reading	Ending meter reading	Duration of time observed	Total pump output
650 GPM	550 GPM	4 Hours	550 gpm

6. Theoretical pump capacity

Horsepower	Operating psi	Lift from source to pump *If a well, the water level during pumping (see pump test results)	Lift from pump to place of use	Total pump output
50	25 psi	146.4 feet	-170 feet	747.8 gpm

7. Provide pump calculations in the box below:

$$Q_{pump} = \left[\frac{(Hp)(conv.factor)}{(lift + pressure)}\right]$$

conversion factor = 7.04

Hp = 50 horse power
Lift + pressure = 210 feet
1 GPM = 0.0022333 cfs

Q = 1.67 cfs = 747.86 GPM

**This box can be deleted from the form

$$Q_{pump} = \frac{(Hp)(550 \text{ ft lb/sec/Hp})(efficiency)}{(62.4 \text{ lb/cu ft})(lift + press) \text{ in feet}} = \frac{(efficiency)(Hp)}{\text{total head in feet}} = \text{cfs}$$

or

$$Q_{pump} = \frac{(Hp)(conversion\ factor)}{(lift + pressure)\ \textit{total head in feet}} = \text{cfs}$$

Conversion factors:

Centrifugal Pump, 75% eff. $\frac{(550 \text{ ft lb/sec/Hp})(.75)}{(62.4 \text{ lb/cu ft})} = 6.61 \text{ ft}^4\text{/sec/Hp}$

Turbine & Submersible Pumps, 80% eff. $\frac{(550 \text{ ft lb/sec/Hp})(.80)}{(62.4 \text{ lb/cu ft})} = 7.04 \text{ ft}^4\text{/sec/Hp}$

Efficiencies have been assumed to be 75% for centrifugal pump installations and 80% for turbine or submersible pumps. See the list below of converted psi's to feet of head. These figures account for minor friction losses. If the system involves unusually long pipelines friction losses should be accounted for by using standard charts and formulas.

Refer to the conversion table below to compute PSI to head for pump pressure in feet.

[(psi/.433)(1.1) = head (in feet/psi) = 2.54 feet head/psi]

PSI	HEAD	PSI	HEAD
25	63.5	55	139.7
30	76.2	60	152.4
35	88.9	65	165.1
40	101.6	70	177.8
45	114.3	75	190.5
50	127.0	80	203.2

8. Mainline information

Mainline size	Length	Type of pipe	Buried or above ground
15"	8,810 ft	PVC	Buried
12"	906 ft	PVC	Buried
10"	7,343 ft	PVC	Buried
8"	6,412 ft	PVC	Buried

9. Lateral or handline information

Lateral or handline size	Length	Type of pipe	Buried or above ground
15"	4,583 ft	PVC	Buried
12"	3,506 ft	PVC	Buried
10"	2,508 ft	PVC	Buried
8"	3,655 ft	PVC	Buried
8" Gated	1,724 ft	PVC	Above Ground

10. Sprinkler information Make and model:

Make	Model	Size	Operating psi	Sprinkler output	Maximum number used	Total sprinkler output
Nelson	R3000	Varies from 14 to 33	Varies from 15.04 to 16.68 psi	Varies from 1.35 to 7.36 gpm	107	$\frac{(4.684)(107)}{448.8} =$ 1.117 cfs
Nelson	R3000	Varies from 14 to 34	Varies from 15.13 to 16.80 psi	Varies from 1.37 to 7.85 gpm	151	$\frac{(4.769)(151)}{448.8} =$ 1.605 cfs
Nelson	R3000	Varies from 14 to 44	Varies from 14.62 to 16.65 psi	Varies from 1.35 to 13.01 gpm	88	$\frac{(7.23)(88)}{448.8} =$ 1.418 cfs
Nelson	S3000	Varies from 12 to 40	Varies from 10.25 to 16.81 psi	Varies from 1.01 to 8.96 gpm	113	$\frac{(5.546)(113)}{448.8} =$ 1.396 cfs
Nelson	S3000	Varies from 12 to 31	Varies from 15.27 to 16.75 psi	Varies from 1.01 to 7.42 gpm	72	$\frac{(4.495)(72)}{448.8} =$ 0.721 cfs
Nelson	S3000	Varies from 12 to 31	Varies from 15.27 to 16.75 psi	Varies from 1.01 to 7.42 gpm	72	$\frac{(4.495)(72)}{448.8} =$ 0.721 cfs
Nelson	P85AS	11/32 TB	Not provided	48.83 gpm	1	0.109 cfs
Nelson	P85AS	3/8 TB	62.92 psi	63.80 gpm	1	0.1422 cfs
Nelson	P85AS	11/32 TB	31.77	38.15 gpm	2	0.1700 cfs

Nelson	S3000	Varies from 12 to 34	15.22 to 16.79 psi	Varies from 1.01 to 7.87 gpm	69	$\frac{(4.542)(69)}{448.8} =$ 0.698 cfs
Dual Nelson	P85AS	11/32 TB	32.02 psi	38.31 gpm	1	0.085 cfs

Refer to the chart of sprinkler output at various pressures for most nozzle sizes attached to this document.

$$Q_{sprinklers} = \frac{(\text{max \# heads})(\text{gpm/head})}{448.8\ gpm/cfs} = \text{cfs}$$

15. **Additional notes or comments related to the system:**

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III. CONDITIONS

Please pay special attention to this section. All conditions contained in the permit or transfer final order shall be addressed. Reports that do not address all performance related conditions will be returned.

1. **Time Limits:**

a. Permits or transfer Final Orders contain any or all of the following dates; the date when the actual construction work was to begin, the date when the construction was to be completed, and the date when the complete application of water to the proposed use is to be completed by. These dates may be referred to as ABC dates. Describe how the water user has complied with each of the development timelines established in the permit or transfer final order:

	Dates from permit or transfer final order	Date accomplished	Description of actions taken by water user to comply with the time limits
Begin construction	11/13/1999	n/a	All wells drilled and finished by 1996 previous Water Right
Complete construction	n/a	n/a	None specified
Complete application of water	10/01/2003	n/a	Existing System and Additional Pivots

2. **Initial Water Level Measurements:**
**If the Claim is for surface water or a reservoir, or if the water user was not required to submit static water level measurements, items b through e relating to this section can be deleted.

a. Was the water user required to submit an initial static water level measurement? YES

b. What month was the initial measurement to be taken in? March

c. Did an authorized individual (as stated in the permit or transfer final order) make the initial static water level measurement in the month required?
YES

d. If "YES", was the measurement submitted to the Department? YES

e. If the initial measurement not been submitted, provide that measurement now if available:

Date of measurement	Who made measurement	Method	Measurement
n/a	n/a	n/a	n/a

3. **Annual Static Water Level Measurements:**
**If the Claim is for surface water or a reservoir, or if the water user was not required to submit static water level measurements, items b through e relating to this section can be deleted.

a. Was the water user required to submit annual static water level measurements? YES

b. In the box below, provide the month in which the static water level was to be made:

March

c. Were the static water level measurements taken in the month required? YES

d. If "YES", were those measurements submitted to the Department? YES

e. If the annual measurements were not submitted, provide the measurements now in the box below:

Year	Month	Measurement made by	Measurement
n/a	n/a	n/a	n/a

4. **Measurement, recording, and reporting conditions:**

a. Does the permit or transfer final order require the installation of a meter or approved measuring device?
YES

If a meter or approved measuring device was required, the COBU map must indicate the location of the device in relation to the point of diversion or appropriation.

**If "NO", items b through g relating to this section can be deleted.

b. Has a meter been installed? YES

c. Provide the date the meter was installed:

March 2000

d. If a meter has not been installed, has a suitable measuring device been installed and approved by the Department? N/A

e. If "YES", provide a copy of the letter approving the device, if available. If the letter is not available provide the name and title of the Water Resources Department employee approving the measuring device, and the approximate date of the approval:

Name	Title	Approximate date
n/a	n/a	n/a

f. Is the water user required to report the water use to the Department? YES

g. Have the reports been submitted? YES

If the reports have not been submitted, attach a copy of the reports if available.

5. **Fish Screening and/or By-pass Devices**

a. Are any points of diversion required to be screened and/or have a by-pass device to prevent fish from entering the point of diversion? NO

If fish screening and/or by-pass devices were required, the COBU map must indicate their location in relation to the point of diversion.

**If "NO", items b through i relating to this section can be deleted

j. If not, is the approval letter attached to the Claim? N/A

k. Has the by-pass device been installed? N/A

l. Describe the by-pass device:

When installed	By whom	Approved by ODFW	Description
n/a	n/a	n/a	n/a

6. **Pump Test** (Required for ground permits prior to issuance of a certificate, but not a requirement of permit development)

a. Did the permit require the submittal of a pump test? YES

b. Has the pump test been previously submitted to the Department? YES

c. Has the pump test been approved by the Department? NOT SURE

d. If no, is the pump test attached to this Claim? YES

7. **Other Permit Conditions** (examples: special well construct standards, water conservation plans, no obstructions to fish without a fishway, etc.; number as appropriate.)

None specified

IV. Variations, Attachments, Conclusions, Map and Signatures

Variations

Include a description of variations from the permit or transfer final order

Attachments

If you are attaching any documents to this report, provide a list below:

Attachment name	Description
Well Logs	Date of Well Construction, Depth of Well, Type of Casing Installed, ETC.
Annual Water Use Reports	Amount of Water Used per Well per Month of Irrigation
Static Water Measurements	Static Water Measurements for each Well.
Pump Tests	Pump Flow Measurement Tests for each Well.
Pivot Design Calcs.	Nozzle & End Gun Flow Calcs. for each Pivot.
Pump Curves	Mfg. Pump Curve(s)

Permit and Transfer Final Order Rates and System Rates Comparisons:

POD or POA name or #	Maximum rate allowed by permit or transfer final order	Calculated theoretical rate of water based on system	Actual amount of water measured (if measured)	Developed use	# of acres allowed by permit or transfer final order	# of acres developed
Well # 15	1.35 cfs	1.17 cfs	na	irrigation	424.7 acres (Total)	446.6 (Total)
Well # 17	1.43 cfs	1.17 cfs	na	irrigation		
Well # 18	1.22 cfs	1.12 cfs	na	irrigation		
Well # 19	1.79 cfs	1.17 cfs	na	irrigation		
Well # 20	2.11 cfs	1.17 cfs	na	irrigation		

Claim of Beneficial Use Map

The Claim of Beneficial Use Map must be submitted with this Claim. Claims submitted without the Claim of Beneficial Use map will be returned. The map shall be submitted on poly film at a scale of 1" = 1320', 1" = 400', or the original full-size scale of the county assessor map for the location.

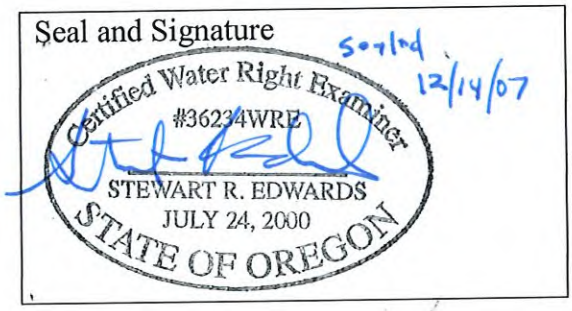
In the following box, provide a general description of the survey method used to prepare the map. Examples of possible methods include, but are not limited to, a traverse survey, GPS, or the use of aerial photos. If the basis of the survey is an aerial photo, provide the source, date, series and the aerial photo identification number.

The combination of Tax Maps & GPS.

CWRE Statement, Seal and Signature

The facts contained in this Claim of Beneficial Use are true and correct to the best of my knowledge.

Seal and Signature



Permit or Transfer Holders Signature or Acknowledgement

The facts contained in this Claim of Beneficial Use are true and correct to the best of my knowledge. I request that the Department issue a water right certificate.

William H. Heid per | William H. Heid | 12-18-07
Signature | Print or type name | Date

Rochelle M. Heid, owner | Rochelle M. Heid | 12-18-07
Signature | Print or type name | Date

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WELL LOGS