

Application for a Permit to Use Ground Water



Oregon Water Resources Department
725 Summer Street NE, Suite A
Salem, Oregon 97301-1266
(503) 986-0900
www.wrd.state.or.us

SECTION 1: APPLICANT INFORMATION AND SIGNATURE

Applicant Information

| | | | |
|--|-----------------------------|----------------------------|---|
| NAME <i>Harney Electric Cooperative Inc</i> | | PHONE (HM) | |
| PHONE (WK) <i>541-573-2061</i> | CELL <i>541-589-5812</i> | FAX <i>541-573-3930</i> | |
| ADDRESS <i>1326 Hines Blvd</i> | | | |
| CITY <i>Burns</i> | STATE <i>OR</i> | ZIP <i>97720</i> | E-MAIL <i>Randy.Whiteaker@Harneyelectric.org</i> |

Organization Information

| | | | | |
|---------|-------|-------|--------|------|
| NAME | | PHONE | | FAX |
| ADDRESS | | | | CELL |
| CITY | STATE | ZIP | E-MAIL | |

Agent Information – The agent is authorized to represent the applicant in all matters relating to this application.

| | | | |
|---|--------------------|------------------------------|--------|
| AGENT / BUSINESS NAME <i>Randy Whiteaker - General Manager</i> | | PHONE <i>541-573-2061</i> | FAX |
| ADDRESS <i>1326 Hines Blvd</i> | | | CELL |
| CITY <i>Burns</i> | STATE <i>OR</i> | ZIP <i>97720</i> | E-MAIL |

Note: Attach multiple copies as needed

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By my signature below I confirm that I understand:

- I am asking to use water specifically as described in this application.
- Evaluation of this application will be based on information provided in the application.
- I cannot use water legally until the Water Resources Department issues a permit.
- Oregon law requires that a permit be issued before beginning construction of any proposed well, unless the use is exempt. Acceptance of this application does not guarantee a permit will be issued.
- If I get a permit, I must not waste water.
- If development of the water use is not according to the terms of the permit, the permit can be cancelled.
- The water use must be compatible with local comprehensive land-use plans.
- Even if the Department issues a permit, I may have to stop using water to allow senior water-right holders to get water to which they are entitled.

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SALEM, OREGON

I (we) affirm that the information contained in this application is true and accurate.

Randy Whiteaker
Applicant Signature

Randy Whiteaker
Print Name and title if applicable
General Manager

9/15/2010
Date

Applicant Signature

Print Name and title if applicable

Date

| | | |
|-------------------------|------------------|------------|
| For Department Use | | |
| App. No. <i>G-17424</i> | Permit No. _____ | Date _____ |

SECTION 2: PROPERTY OWNERSHIP

Please indicate if you own all the lands associated with the project from which the water is to be diverted, conveyed, and used.

Yes

- There are no encumbrances.
- This land is encumbered by easements, rights of way, roads or other encumbrances.

No

- I have a recorded easement or written authorization permitting access.
- I do not currently have written authorization or easement permitting access.
- Written authorization or an easement is not necessary, because the only affected lands I do not own are state-owned submersible lands, and this application is for irrigation and/or domestic use only (ORS 274.040).
- Water is to be diverted, conveyed, and/or used only on federal lands.

List the names and mailing addresses of all affected landowners (*attach additional sheets if necessary*).

SECTION 3: WELL DEVELOPMENT

| WELL NO. | NAME OF NEAREST SURFACE WATER | IF LESS THAN 1 MILE: | |
|---------------|-------------------------------|-----------------------------------|--|
| | | DISTANCE TO NEAREST SURFACE WATER | ELEVATION CHANGE BETWEEN NEAREST SURFACE WATER AND WELL HEAD |
| Harn 51698 | West Fork Silvies River | 1.7 mi | 10 ft |
| Harn 51699 | West Fork Silvies River | 1.7 | 10 ft |
| | | | |
| | | | |
| | | | |
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Please provide any information for your existing or proposed well(s) that you believe may be helpful in evaluating your application. For existing wells, describe any previous alteration(s) or repair(s) not documented in the attached well log or other materials (*attach additional sheets if necessary*).

These two wells are for Geothermal Heat. Domestic water service & Fire Hydrant is from the Quasic Municipality of Hines. Please see attached pages

Note exempt use granted earlier please refund

WELL LABEL # L 102511

START CARD # 1009943

(1) LAND OWNER Owner Well I.D. Discharge

First Name _____ Last Name _____
 Company Hamey Electric Co op
 Address 1326 Hines Blvd.
 City Burns State OR Zip 97720

(2) TYPE OF WORK New Well Deepening Conversion
 Alteration (repair/recondition) Abandonment

(3) DRILL METHOD
 Rotary Air Rotary Mud Cable Auger Cable Mud
 Reverse Rotary Other _____

(4) PROPOSED USE Domestic Irrigation Community
 Industrial/ Commercial Livestock Dewatering
 Thermal Injection Other _____

(5) BORE HOLE CONSTRUCTION Special Standard (Attach copy)
 Depth of Completed Well 180.00 ft.

| BORE HOLE | | | SEAL | | Amt | sacks/ lbs |
|-----------|------|-----|-----------|----|-----|---------------|
| Dia | From | To | From | To | | |
| 10 | 0 | 20 | Bentonite | 0 | 20 | 20 |
| 6 | 20 | 180 | | | | |

How was seal placed: Method A B C D E

Other poured dry and tam

Backfill placed from _____ ft. to _____ ft. Material _____

Filter pack from _____ ft. to _____ ft. Material _____ Size _____

Explosives used: Yes Type _____ Amount _____

(6) CASING/LINER

| Casing | Liner | Dia | + | From | To | Gauge | Stl | Plstc | Wld | Thrd |
|-------------------------------------|-------------------------------------|-----|-------------------------------------|------|-----|-------|-------------------------------------|--------------------------|-------------------------------------|--------------------------|
| <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | 6 | <input checked="" type="checkbox"/> | 3 | 106 | .250 | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

Shoe Inside Outside Other Location of shoe(s) _____

Temp casing Yes Dia _____ From _____ To _____

(7) PERFORATIONS/SCREENS

Perforations Method _____
 Screens Type _____ Material _____

| Perf/S creen | Casing/ Liner | Screen Dia | From | To | Scrn/slot width | Slot length | # of slots | Tele/ pipe size |
|-----------------|------------------|---------------|------|----|--------------------|----------------|---------------|--------------------|
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

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

Pump Bailer Air Flowing Artesian

Yield gal/min Drawdown Drill stem/Pump depth Duration (hr)

| | | | |
|----|--|-----|---|
| 50 | | 180 | 1 |
| | | | |
| | | | |

Temperature 66 °F Lab analysis Yes By _____

Water quality concerns? Yes (describe below)

| From | To | Description | Amount | Units |
|------|----|-------------|--------|-------|
| | | | | |
| | | | | |

(9) LOCATION OF WELL (legal description)

County Hamey Twp 23.00 S N/S Range 30.00 E E/W WM
 Sec 23 NWSE 1/4 of the NWSE 1/4 Tax Lot 400 5400
 Tax Map Number _____ Lot _____
 Lat _____ " or _____ DMS or DD
 Long _____ " or _____ DMS or DD
 Street address of well Nearest address

28910 Hwy 20, Hines, OR 97738

(10) STATIC WATER LEVEL

| | Date | SWL(psi) | + | SWL(ft) |
|------------------------------|-------------------|----------|-------------------------------------|-----------|
| Existing Well / Predeepening | | | | |
| Completed Well | <u>04-23-2010</u> | | <input checked="" type="checkbox"/> | <u>14</u> |

WATER BEARING ZONES _____

Depth water was first found 22

| SWL Date | From | To | Est Flow | SWL(psi) | + | SWL(ft) |
|-------------------|-----------|------------|-----------|----------|-------------------------------------|-----------|
| <u>04-24-2010</u> | <u>22</u> | <u>180</u> | <u>50</u> | | <input checked="" type="checkbox"/> | <u>14</u> |
| | | | | | | |
| | | | | | | |

(11) WELL LOG

| Material | Ground Elevation | |
|---------------------|------------------|-----|
| | From | To |
| topsoil | 0 | 1 |
| Clay Brown | 1 | 22 |
| Sand Med Clay | 22 | 35 |
| Gravel Med | 35 | 50 |
| Sand Med Cinders | 50 | 65 |
| Gravel Med | 65 | 80 |
| Sand Cinders | 80 | 100 |
| Sandstone | 100 | 120 |
| Pumice Multicolored | 120 | 170 |
| Rock Red | 170 | 180 |

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Date Started 04-23-2010 Completed 04-24-2010

(unbonded) Water Well Constructor Certification

I certify that the work I performed on the construction, deepening, 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.

License Number _____ Date _____

Electronically Filed

Signed _____

(bonded) Water Well Constructor Certification

I accept responsibility for the construction, deepening, 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.

License Number 1424 Date 04-30-2010

Electronically Filed

Signed TIMOTHY K RILEY (E-filed)

Contact Info (optional) _____

G-17424

STATE OF OREGON
WATER SUPPLY WELL REPORT
(as required by ORS 537.765 & OAR 690-205-0210)

04-30-2010

WELL LABEL # L 102510

START CARD # 1009928

(1) LAND OWNER Owner Well I.D. production well

First Name Last Name
Company Harney Electric Co op
Address 1326 Hines Blvd.
City Burns State OR Zip 97720

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

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

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

(5) BORE HOLE CONSTRUCTION Special Standard [] (Attach copy)
Depth of Completed Well 243.00 ft.

Table with columns: Dia, From, To, Material, From, To, Amt, sacks/lbs. Row 1: 10, 0, 20, Bentonite, 0, 20, 20, S. Row 2: 6, 20, 243.

How was seal placed: Method [] A [] B [] C [] D [] E
[X] Other poured dry and tam
Backfill placed from ft. to ft. Material
Filter pack from ft. to ft. Material Size
Explosives used: [] Yes Type Amount

(6) CASING/LINER

Table with columns: Casing, Liner, Dia, From, To, Gauge, Stl, Plstc, Wld, Thrd. Row 1: 6, 2, 109, .250, [X].

Shoe [] Inside [] Outside [] Other Location of shoe(s)
Temp casing [] Yes Dia From To

(7) PERFORATIONS/SCREENS

Perforations Method
Screens Type Material

Table with columns: Perf/S creen, Casing/ Liner, Dia, From, To, Scrrn/slot width, Slot length, # of slots, Tele/ pipe size.

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

[] Pump [] Bailer [X] Air [] Flowing Artesian
Yield gal/min Drawdown Drill stem/Pump depth Duration (hr)
50 240 1

Temperature 68 °F Lab analysis [] Yes By
Water quality concerns? [] Yes (describe below)

Table with columns: From, To, Description, Amount, Units.

(9) LOCATION OF WELL (legal description)

County Harney Twp 23.00 S N/S Range 30.00 E E/W WM
Sec 23 NWSE 1/4 of the NWSE 1/4 Tax Lot 400 5400
Tax Map Number Lot
Lat 0 0 " or DMS or DD
Long 0 0 " or DMS or DD
[] Street address of well [X] Nearest address
28910 Hwy 20, Hines, OR 97738

(10) STATIC WATER LEVEL

Table with columns: Existing Well / Predeepening, Date, SWL(psi), + SWL(ft). Row 1: Completed Well, 04-21-2010, 14, 32.3.

WATER BEARING ZONES Depth water was first found 22

Table with columns: SWL Date, From, To, Est Flow, SWL(psi), + SWL(ft). Row 1: 04-21-2010, 22, 243, 50, 14.

(11) WELL LOG

Table with columns: Material, From, To. Rows include Topsoil, ClyBrown, Sand Med Clay, Gravel Med, Sand Med Cinders, Gravel Med, Sand, Sandstone, Pumice Multicolored, Rock Red.

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WATER RESOURCES DEPT
SALEM, OREGON

Date Started 04-21-2010 Completed 04-21-2010

(unbonded) Water Well Constructor Certification

I certify that the work I performed on the construction, deepening, 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.

License Number Date
Electronically Filed
Signed

(bonded) Water Well Constructor Certification

I accept responsibility for the construction, deepening, 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.

License Number 1424 Date 04-30-2010
Electronically Filed
Signed TIMOTHY K RILEY (E-filed)
Contact Info (optional)

9-17424

SECTION 3: WELL DEVELOPMENT, CONTINUED

Source (aquifer), if known: alluvium

Total maximum rate requested: 440 gpm (each well will be evaluated at the maximum rate unless you indicate well-specific rates and annual volumes in the table below).

Complete the table below. If this is an existing well, the following information may be found on the applicable well log. (If a well log is available, please submit it in addition to completing the table.) If this is a proposed well, or well-modification, consider consulting with a licensed well driller, geologist, or certified water right examiner.

| OWNER'S WELL NAME OR NO. | PROPOSED | EXISTING | WELL ID (WELL TAG NO. OR WELL LOG ID)** | FLOWING ARTESIAN | CASING DIAMETER | CASING INTERVALS (IN FEET) | PERFORATED OR SCREENED INTERVALS (IN FEET) | SEAL INTERVALS (IN FEET) | MOST RECENT STATIC WATER LEVEL & DATE (IN FEET) | SOURCE AQUIFER*** | TOTAL WELL DEPTH | WELL-SPECIFIC RATE (GPM) | ANNUAL VOLUME (ACRE-FEET) | PROPOSED USE | |
|--------------------------|--------------------------|-------------------------------------|---|--------------------------|-----------------|----------------------------|--|--------------------------|---|-------------------|------------------|--------------------------|---------------------------|--------------|--|
| | | | | | | | | | | | | | | | |
| Injection L-102510 | <input type="checkbox"/> | <input checked="" type="checkbox"/> | L-102510 | <input type="checkbox"/> | 6" | 2 to 109' | None | 0 to 20' | 17' 8/27/2010 | | 293 | Injection | | | |
| Production | <input type="checkbox"/> | <input checked="" type="checkbox"/> | L-102511 | <input type="checkbox"/> | 6' | 3 to 106' | None | 0 to 20' | 17' 9/27/2010 | | 180 | 440 | 700 | | |
| | <input type="checkbox"/> | <input type="checkbox"/> | | <input type="checkbox"/> | | | | | | | | | | | |
| | <input type="checkbox"/> | <input type="checkbox"/> | | <input type="checkbox"/> | | | | | | | | | | | |
| | <input type="checkbox"/> | <input type="checkbox"/> | | <input type="checkbox"/> | | | | | | | | | | | |
| | <input type="checkbox"/> | <input type="checkbox"/> | | <input type="checkbox"/> | | | | | | | | | | | |
| | <input type="checkbox"/> | <input type="checkbox"/> | | <input type="checkbox"/> | | | | | | | | | | | |
| | <input type="checkbox"/> | <input type="checkbox"/> | | <input type="checkbox"/> | | | | | | | | | | | |
| | <input type="checkbox"/> | <input type="checkbox"/> | | <input type="checkbox"/> | | | | | | | | | | | |
| | <input type="checkbox"/> | <input type="checkbox"/> | | <input type="checkbox"/> | | | | | | | | | | | |
| | <input type="checkbox"/> | <input type="checkbox"/> | | <input type="checkbox"/> | | | | | | | | | | | |

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* Licensed drillers are required to attach a Department-supplied Well Tag, with a unique Well ID or Well Tag Number to all new or newly altered wells. Landowners can request a Well ID for existing wells that do not have one. The Well ID is intended to serve as a unique identification number for each well.
 ** A well log ID (e.g. MARI 1234) is assigned by the Department to each log in the agency's well log database. A separate well log is required for each subsequent alteration of the well.
 *** Source aquifer examples: Troutdale Formation, gravel and sand, alluvium, basalt, bedrock, etc.

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SECTION 4: WATER USE

| USE | PERIOD OF USE | ANNUAL VOLUME (ACRE-FEET) |
|--------------------------------------|---------------|--|
| 102511 geothermal production well | year around | 700.0 |
| injection well/discharge well 102512 | year around | 100% of water from 102511 is injected in this well |

Exempt Uses: Please note that 15,000 gallons per day for single or group **domestic** purposes and 5,000 gallons per day for a single **industrial or commercial** purpose are exempt from permitting requirements.

For irrigation use only:

Please indicate the number of primary and supplemental acres to be irrigated (*must match map*).

Primary: 0 Acres Supplemental: 0 Acres

List the Permit or Certificate number of the underlying primary water right(s): _____

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

- If the use is **municipal or quasi-municipal**, attach **Form M**
- If the use is **domestic**, indicate the number of households: _____
- If the use is **mining**, describe what is being mined and the method(s) of extraction: _____

SECTION 5: WATER MANAGEMENT

A. Diversion and Conveyance

What equipment will you use to pump water from your well(s)?

Pump (give horsepower and type): 5 hp variable frequency drive

Other means (describe): _____

Provide a description of the proposed means of diversion, construction, and operation of the diversion works and conveyance of water. water from production well is pumped thru heat exchanger via a 2" line and then injected into discharge well

B. Application Method

What equipment and method of application will be used? (e.g., drip, wheel line, high-pressure sprinkler)

none

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C. Conservation

Please describe why the amount of water requested is needed and measures you propose to: prevent waste; measure the amount of water diverted; prevent damage to aquatic life and riparian habitat; prevent the discharge of contaminated water to a surface stream; prevent adverse impact to public uses of affected surface waters.

100% of water is re-injected into discharge line (closed system)

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SECTION 6: STORAGE OF GROUND WATER IN A RESERVOIR

If you would like to store ground water in a reservoir, complete this section (if more than one reservoir, reproduce this section for each reservoir).

Reservoir name: _____ Acreage inundated by reservoir: _____

Use(s): _____

Volume of Reservoir (acre-feet): _____ Dam height (feet, if excavated, write "zero"): _____

Note: If the dam height is greater than or equal to 10.0' above land surface AND the reservoir will store 9.2 acre feet or more, engineered plans and specifications must be approved prior to storage of water.

SECTION 7: USE OF STORED GROUND WATER FROM THE RESERVOIR

If you would like to use stored ground water from the reservoir, complete this section (if more than one reservoir, reproduce this section for each reservoir).

Annual volume (acre-feet): _____

| USE OF STORED GROUND WATER | PERIOD OF USE |
|----------------------------|---------------|
| | |
| | |
| | |
| | |
| | |
| | |
| | |

SECTION 8: PROJECT SCHEDULE

Date construction will begin: October 4, 2010

Date construction will be completed: April 4 2011

Date beneficial water use will begin: Jan 15 2011

SECTION 9: REMARKS

Use this space to clarify any information you have provided in the application (attach additional sheets if necessary).

See attached sheet

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SALEM, OREGON

For Local Government Use Only

The following section must be completed by a planning official from each county and city listed unless the project will be located entirely within the city limits. In that case, only the city planning agency must complete this form. This deals only with the local land-use plan. Do not include approval for activities such as building or grading permits.

Please check the appropriate box below and provide the requested information

- Land uses to be served by the proposed water uses (including proposed construction) are allowed outright or are not regulated by your comprehensive plan. Cite applicable ordinance section(s): _____
- Land uses to be served by the proposed water uses (including proposed construction) involve discretionary land-use approvals as listed in the table below. (Please attach documentation of applicable land-use approvals which have already been obtained. Record of Action/land-use decision and accompanying findings are sufficient.) **If approvals have been obtained but all appeal periods have not ended, check "Being pursued."**

| Type of Land-Use Approval Needed (e.g., plan amendments, rezones, conditional-use permits, etc.) | Cite Most Significant, Applicable Plan Policies & Ordinance Section References | Land-Use Approval: | |
|---|--|--|--|
| | | <input type="checkbox"/> Obtained <input type="checkbox"/> Denied | <input type="checkbox"/> Being Pursued <input type="checkbox"/> Not Being Pursued |
| | | <input type="checkbox"/> Obtained <input type="checkbox"/> Denied | <input type="checkbox"/> Being Pursued <input type="checkbox"/> Not Being Pursued |
| | | <input type="checkbox"/> Obtained <input type="checkbox"/> Denied | <input type="checkbox"/> Being Pursued <input type="checkbox"/> Not Being Pursued |
| | | <input type="checkbox"/> Obtained <input type="checkbox"/> Denied | <input type="checkbox"/> Being Pursued <input type="checkbox"/> Not Being Pursued |
| | | <input type="checkbox"/> Obtained <input type="checkbox"/> Denied | <input type="checkbox"/> Being Pursued <input type="checkbox"/> Not Being Pursued |

Local governments are invited to express special land-use concerns or make recommendations to the Water Resources Department regarding this proposed use of water below, or on a separate sheet.

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Name: Ramona Hofman Title: Planning Com. Secretary
 Signature: Ramona Hofman Phone: 541-573-2251 Date: 9-17-10
 Government Entity: City of Hines

Note to local government representative: Please complete this form or sign the receipt below and return it to the applicant. If you sign the receipt, you will have 30 days from the Water Resources Department's notice date to return the completed Land Use Information Form or WRD may presume the land use associated with the proposed use of water is compatible with local comprehensive plans.

Receipt for Request for Land Use Information

Applicant name: _____
 City or County: _____ Staff contact: _____
 Signature: _____ Phone: _____ Date: _____

Land Use Information Form



Oregon Water Resources Department
 725 Summer Street NE, Suite A
 Salem, Oregon 97301-1266
 (503) 986-0900
 www.wrd.state.or.us

Applicant: Harney Electric Cooperative Inc
First Last

Mailing Address: 1326 Hines Blvd

Burns OR 97720 Daytime Phone: 541 573 2061
City State Zip

A. Land and Location

Please include the following information for all tax lots where water will be diverted (taken from its source), conveyed (transported), and/or used or developed. 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.

| Township | Range | Section | ¼ ¼ | Tax Lot # | Plan Designation (e.g., Rural Residential/RR-5) | Water to be: | | | Proposed Land Use: |
|----------|-------|---------|-------|-----------|---|-----------------------------------|-----------------------------------|-------------------------------|--------------------|
| 23 S | 30 E | 23 | SE SE | 5400 | commercial | <input type="checkbox"/> Diverted | <input type="checkbox"/> Conveyed | <input type="checkbox"/> Used | commercial |
| | | | | | centrally assessed PCRA # 2008-147 | <input type="checkbox"/> Diverted | <input type="checkbox"/> Conveyed | <input type="checkbox"/> Used | |
| | | | | | see CS# 122 | <input type="checkbox"/> Diverted | <input type="checkbox"/> Conveyed | <input type="checkbox"/> Used | |
| | | | | | | <input type="checkbox"/> Diverted | <input type="checkbox"/> Conveyed | <input type="checkbox"/> Used | |

List all counties and cities where water is proposed to be diverted, conveyed, and/or used or developed:

Harney County, Hines

B. Description of Proposed Use

Type of application to be filed with the Water Resources Department:

- Permit to Use or Store Water
- Water Right Transfer
- Permit Amendment or Ground Water Registration Modification
- Limited Water Use License
- Allocation of Conserved Water
- Exchange of Water

Source of water: Reservoir/Pond Ground Water Surface Water (name) _____

Estimated quantity of water needed: 440 cubic feet per second gallons per minute acre-feet

Intended use of water: Irrigation Commercial Industrial Domestic for _____ household(s)
 Municipal Quasi-Municipal Instream Other Geothermal - office heat

Briefly describe:

water from production well pumped through heat exchanger / Heat Pump and then into injection well. Domestic water provided by the quasi-municipal City of Hines. see attached sheets.

Note to applicant: If the Land Use Information Form cannot be completed while you wait, please have a local government representative sign the receipt at the bottom of the next page and include it with the application filed with the Water Resources Department.

See bottom of Page 3. →

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HARNEY COUNTY RECORDS
1326 HINES BLVD.
BURNS, OR 97720

County Clerk's Records of Harney County, Oregon.
Maria Iturriaga, County Clerk

Escrow No. BU0018658
Title No. 0018658
SWD

By *[Signature]* Deputy

STATUTORY WARRANTY DEED

MALHEUR PARTNERSHIP, Grantor(s) hereby convey and warrant to **HARNEY ELECTRIC COOPERATIVE, INC.**, Grantee(s) the following described real property in the County of **HARNEY** and State of Oregon free of encumbrances except as specifically set forth herein:

A parcel of land situated in the SE1/4SE1/4 of Sec. 23 and the SW1/4SW1/4 of Sec. 24, Twp. 23 S., R. 30 E., W.M., City of Hines, Harney County, Oregon, and more particularly described as follows:

Description covers two parcels Both wells - Production and Injection

Beginning at the South corner common to said Sections 23 and 24; thence N, 89°28' W. along the South line of said Sec. 23 and the North line of Lottery Lane County Road, 476.1 feet; thence N. 00°04' W. 355.02 feet; thence S. 89°28' E. 476.1 feet to the section line common to said Sections 23 and 24; thence N. 00°04' W. along the said section line common to Sections 23 and 24, 352.84 feet, more or less, to the South boundary of Commercial Avenue; thence along the said South boundary of Commercial Avenue on a 356.01 foot curve to the left (long chord bears N. 74°01'35" E. 51.99 feet) an arc distance of 52.03 feet; thence S. 00°04' E. 152.95 feet; thence S. 89°28' E. 444.36 feet, more or less, to the Northwesterly boundary of the railroad right of way as described in Book 32, Page 487, Deed Records; thence Southwesterly along the said Northwesterly boundary of the railroad right of way to the said North line of Lottery Lane County Road; thence Westerly along the said North line of Lottery Lane, 70 feet, more or less, to the point of beginning.

CODE # 30-1 ACCT. # 30651 MAP# 23S 30E 23DD TL5400
CODE # 30-1 ACCT. # 30654 MAP# 23S 30E 24CC TL400

The above-described property is free of encumbrances except all those items of record, if any, as of the date of this deed and those shown below, if any:

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SALEM, OREGON

see parcel 5400 and

Harney Electric Cooperative, Inc.

Geothermal Well

Intended Use

Harney Electric had two wells drilled for the purpose of providing heating and cooling to the office and shop. The System is closed. Water is drawn from the production well ran through a heat exchanger, and or a heat pump and then injected into the injection well. The heat exchanger will provide heat to a fluid used in the radiant floor heat tubes for the shop. The heat pump will be utilized in the office building and mezzine area of the shop.

The two wells are 189 feet apart, 6 inch steel casing.

Both are on HEC's property.

The production well will have a variable speed motor, flow rates vary:

Well depth 180ft., cased 106 ft., standing water level 14 ft.

Base temperature of 66 deg. F. at bottom of hole

Winter

maximum rate of 113 gpm

minimum rate of zero

Maximum temperature drop of 13 deg F. or an injection temp of 55 deg F.

Summer :

Maximum flow rate of 75 gpm

minimum rate of zero

maximum temperature rise of 7 deg F

Flow rates vary due to the heating and or cooling demands of the system.

The Injection well:

Well depth 243ft., cased 109 ft., standing water level 14 ft.

Base temperature of 68 deg. F. at bottom of hole

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**STATE OF OREGON
EXEMPT USE WELL MAP**

(as required by ORS 537.545 & OAR 690.190)

This map is supplemental to the WATER SUPPLY WELL REPORT

Oregon Water Resources Department

725 Summer St NE, Salem, OR 97301

(503)986-0900



LOCATION OF WELL

Latitude: 43.557178

Longitude: -119.081393

Datum: WGS84

Township/Range/Section/Quarter-Quarter Section: 23S 30E 23 SESE

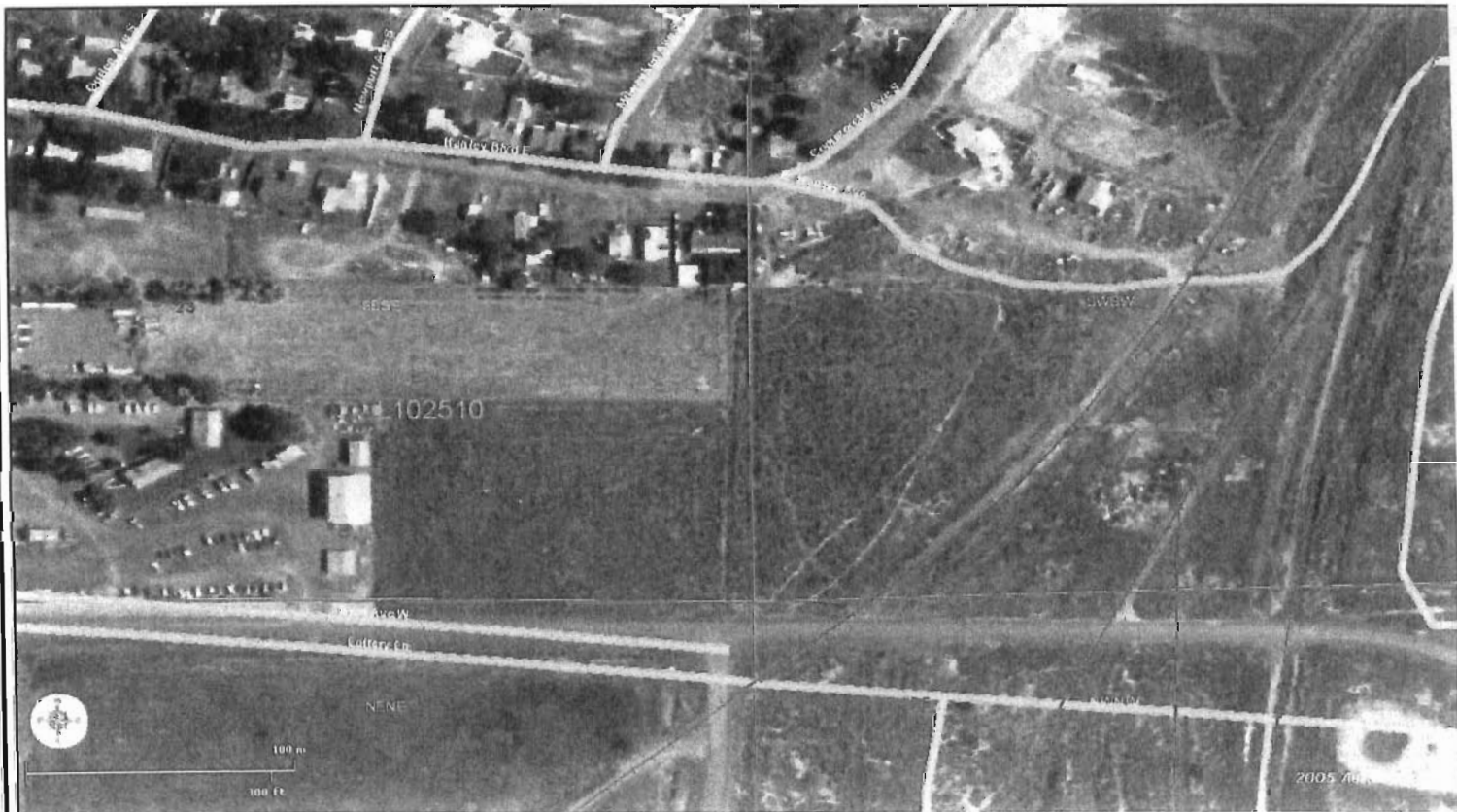
Address of Well: 28910 HWY 20, HINES, OR 97738

Well Label #: L102510

Well Log: HARN 51698

Printed: Jun 08, 2010

DISCLAIMER: This map is intended to represent the approximate location of the exempt use well provided by the land owner. It is not intended to be construed as survey accurate in any manner.



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STATE OF OREGON
 WATER RESOURCES DEPARTMENT
 North Mall Office Building
 725 Summer Street NE, Suite A
 Salem, OR 97301-1266
 Contact: Exempt Use Well Program Coordinator
 at (503)986-0861 (503)986-0902(fax)

Invoice #: 3064

Date: 4/30/2010

HARNEY ELECTRIC CO OP
 1326 HINES BLVD.
 BURNS, OR 97720

Well Information:

Well Tag: L- 102511

Well Log #: HARN 51699 Startcard #: 1009943

Completed: 4/24/2010 Completed depth: 180

TRSQQ: 23 S 30 E 23 ~~NWNW~~ SESE

Street of Well: 28910 HWY 20, HINES, OR 97738

Date Landowner Map Received:

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WATER RESOURCES DEPT
 SALEM OREGON

Exempt Use Recording Fee Total Due: \$300.00

OR

Provide a Water Right Permit or Certificate number and Legal description of the well listed on the Permit or Certificate.

Permit /Certificate Number: _____

Legal Description: _____

(ie. 530 feet North and 1370 feet East, both from the SW Corner of Section 18, Township 6 South, Range 1 East, W.M.)

Terms: Due in 30 days

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| | | |
|---------------------------------|-------------|------------------------------|
| <u>Internal Office Use Only</u> | | |
| 1083 TREASURY | OBJECT 0260 | HARNEY ELECTRIC PCA 45148 |

Q-17424

**STATE OF OREGON
EXEMPT USE WELL MAP**

(as required by ORS 537.545 & OAR 690.190)

This map is supplemental to the WATER SUPPLY WELL REPORT

Oregon Water Resources Department

725 Summer St NE, Salem, OR 97301

(503)986-0900



LOCATION OF WELL

Latitude: 43.556616

Longitude: -119.081299

Datum: WGS84

Township/Range/Section/Quarter-Quarter Section: 23S 30E 23 SESE

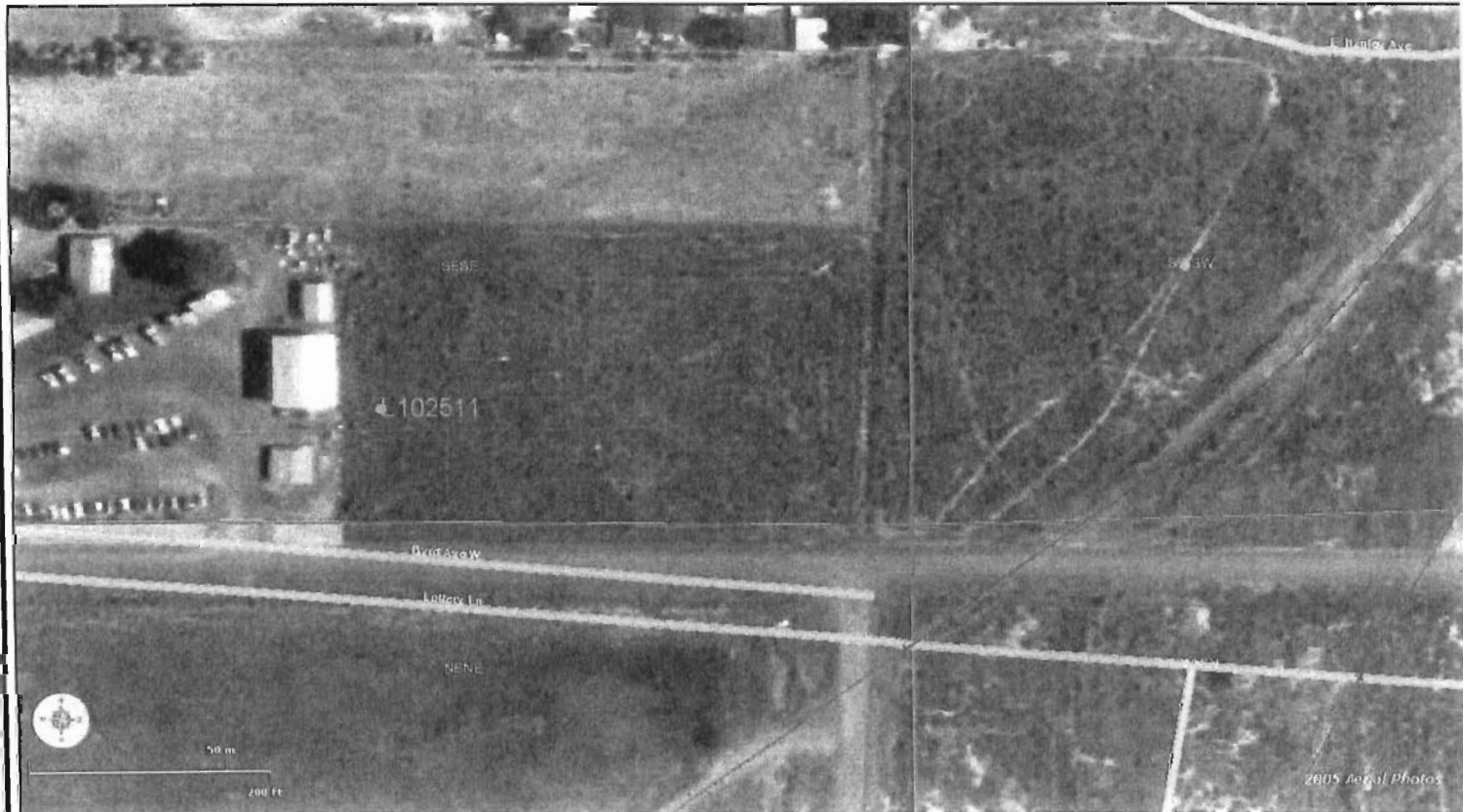
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SALEM, OREGON

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