

Water Resources Department

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February 5, 2015

VIA E-MAIL

DENNIS R INGRAM ROBERTA L JACKSON 1216 EAST MAIN STREET MEDFORD, OR 97504

SUBJECT: Water Right Transfer Application T-11062

Please find enclosed the Preliminary Determination indicating that, based on the information available, the Department intends to approve application T-11062. This document is an intermediate step in the approval process; water may not be used legally as proposed in the transfer application until a Final Order has been issued by the Department. Please read this entire letter carefully to determine your responsibility for additional action.

A public notice is being published in the Department's weekly publication and in the Hermiston Herald newspaper, simultaneously with issuance of the Preliminary Determination. The notice initiates a period in which any person may file either a protest opposing the decision proposed by the Department in the Preliminary Determination or a standing statement supporting the Department's decision. The protest period will end 30 days after the last date of newspaper publication.

If no protest is filed, the Department will issue a Final Order consistent with the Preliminary Determination. You should receive a copy of the Final Order about 30 days after the close of the protest period.

If a protest is filed, the application may be referred to a contested case proceeding. A contested case provides an opportunity for the proponents and opponents of the decision proposed in the Preliminary Determination to present information and arguments supporting their position in a quasi-judicial proceeding.

Please do not hesitate to contact me at 503-986-0886 or Patrick.K.Starnes@wrd.state.or.us if I may be of assistance.

Sincerely.

Kelly Starnes

Transfer Program Analyst

Transfer and Conservation Section

cc: Transfer Application file T-11062

Greg Silbernagel, District 5 Watermaster (via e-mail)

Paul Wattenburger, CWRE #57194 (via e-mail)

Rebecca Place, Rock Solid Sand and Gravel LLC, 74854 Washington Lane, Irrigon, OR 97844, Commentor

BEFORE THE WATER RESOURCES DEPARTMENT OF THE

STATE OF OREGON

In the Matter of Transfer Application
T-11062, Umatilla County

PROPOSING APPROVAL OF CHANGES
IN PLACE OF USE, CHARACTER OF
USE AND ADDITIONAL POINTS OF
APPROPRIATION

Authority

ORS 537.705 and 540.505 to 540.580 establish the process in which a water right holder may submit a request to transfer the point of appropriation, place of use, or character of use authorized under an existing water right. OAR Chapter 690, Division 380 implements the statutes and provides the Department's procedures and criteria for evaluating transfer applications.

Applicant

DENNIS R. INGRAM ROBERTA L. JACKSON 1216 EAST MAIN ST MEDFORD, OR 97504

Findings of Fact

Background

- 1. On April 19, 2010, DENNIS R. INGRAM, of 505 Industries, LLC filed an application to add five additional points of appropriation to reflect Historical use under Certificate 85536. The Department assigned the application number T-11062.
- 2. Notice of the application for transfer was published on April 27, 2010, pursuant to OAR 690-380-4000. No comments were filed in response to the notice.
- 3. On September 27, 2011, the applicant amended the application requesting to include a change in character of use for a portion of Certificate 85536 to industrial use and also requested an administrative hold until April 1, 2012, to modify the application map to clarify the place of use.
- 4. On October 22, 2012, the applicant requested the change to industrial use be for year round use. The additional changes cannot be added to the change in point of appropriation to reflect historical use process covered in ORS 540.532 and OAR 690-380 and prompts the transfer type to change from a Historic POD transfer to a regular transfer.

- 5. On April 11, 2014, Transfer Application T-11786 was submitted also proposing to modify Certificate 85536. The Department shall process T-11786 simultaneously with this transfer T-11062. Certificate 85536 shall be canceled after both transfer applications are approved.
- 6. On May 22, 2014, and September 7, 2014, Mr. Ingram submitted an amended transfer application and new associated maps requesting new additional wells and to better describe the changes proposed in this transfer.
- 7. On July 21, 2014, the applicant requested via e-mail, an extended Completion ("C") Date for completion of this transfer. The Department granted approval of a "C" date extension until October 1, 2017.
- 8. On December 18, 2014, and on January 9, 2015, the applicant requested via e-mail, extending the Completion ("C") Date for completion of this transfer. The Department granted approval of a "C" date extension until October 1, 2018.
- 9. The portion of the right to be transferred is as follows:

Certificate: 85536 in the name of DENNIS R. INGRAM (perfected under Permit

G-3702)

Use: IRRIGATION OF 123.6 ACRES

Priority Date: OCTOBER 4, 1967

Rate: 1.54 CUBIC FEET PER SECOND (cfs), BEING 0.58 CFS FROM

WELL 2, 0.75 CFS FROM WELL 4, and 0.21 CFS FROM WELL 5, if available at the original points of appropriation being WELL 1 in the NW¼ NE¼; 2340 Feet North and 160 Feet East, WELL 2 in the NW¼ NE¼; 2400 Feet North and 330 Feet East, and WELL 4 in the SW¼ NE¼; 70 Feet North and 1310 Feet East from the Center of Section 36,

T 4 N, R 27 E, WM.

Limit/Duty: The amount of water used for irrigation, together with the amount

secured under any other right existing for the same lands, is limited to a diversion of ONE-EIGHTIETH of one cubic foot per second, or its equivalent for each acre irrigated, 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 March 10 thru October 15 of

each year.

Source: Wells 2, 4, and 5 within the COLUMBIA RIVER BASIN

Authorized Points of Appropriation:

| Twp | Rng | Mer | Sec | Q-Q Measured Distances | | | | | |
|-----|------|-----|-----|------------------------|---|--|--|--|--|
| 4 N | 27 E | WM | 36 | NE NE | WELL #5 - 270 FEET SOUTH AND 990 FEET WEST FROM NE CORNER OF SECTION 36 | | | | |
| 4 N | 27 E | WM | 36 | NW NE | WELL #2 - 2400 FEET NORTH AND 330 FEET EAST FROM THE CENTER OF SECTION 36 | | | | |
| 4 N | 27 E | WM | 36 | SW NE | WELL #4 - 70 FEET NORTH AND 1310 FEET EAST FROM THE CENTER OF SECTION 36 | | | | |

Authorized Place of Use:

| | IRRIGATION | | | | | | | | |
|-----|------------|-----|-----|---------|-----------------------------------|------------------------------|---------------------------------------|--|--|
| | | | | | Types of Changes Proposed (Acres) | | | | |
| Twp | Rng | Mer | Sec | Tax Lot | Q-Q | Additional Wells (All acres) | Change in Place of Use For Irrigation | Change in Place of Use and USE to Industrial | |
| 4 N | 27 E | WM | 25 | 900 | SW SE | 1.1 | | | |
| 4 N | 27 E | WM | 36 | 500 | NE NE | 0.7 | | | |
| | | | | 700 | NE NE | 11.8 | | | |
| | | | | 700 | NE NE | 3.2 | | 3.2 | |
| | | | | 500 | NE NE | 0.7 | | 0.7 | |
| 4 N | 27 E | WM | 36 | 700 | NW NE | 9.8 | | 9.8 | |
| | | | | 800 | NW NE | 18.7 | | | |
| | | | | 800 | NW NE | 2.0 | 2.0 | | |
| 4 N | 27 E | WM | 36 | 1400 | SW NE | 34.9 | | •• | |
| | | | | 1400 | SW NE | 5.1 | 5.1 | | |
| 4 N | 27 E | WM | 36 | 1500 | SE NE | 35.6 | | | |
| | | | | | TOTAL | 123.6 ▲ Addt'l POA | 7.1 APOU for Irrigation | 13.7 ▲POU and ▲USE for Industrial Use | |

10. Transfer application T-11062 proposes to change the place of use (described above) of 7.1 acres of irrigation to the following location:

| | IRRIGATION | | | | | | | | |
|-----|------------|-----|-----|---------|-------|-------|--|--|--|
| Twp | Rng | Mer | Sec | Tax Lot | Q-Q | Acres | | | |
| 4 N | 27 E | WM | 25 | 900 | SW SE | 3.9 | | | |
| 4 N | 27 E | WM | 36 | 500 | NE NE | 0.5 | | | |
| 4 N | 27 E | WM | 36 | 700 | NE NE | 0.9 | | | |
| 4 N | 27 E | WM | 36 | 800 | NW NE | 1.8 | | | |
| | | | | | TOTAL | 7.1 | | | |

11. Transfer application T-11062 also proposes to change the character of use of 13.7 acres of irrigation (described above) to YEAR ROUND Industrial use to the following location:

| | INDUSTRIAL USE | | | | | | | | | |
|-----|-----------------------------|----|----|---------------|-------|--|--|--|--|--|
| Twp | Twp Rng Mer Sec Tax Lot Q-Q | | | | | | | | | |
| 4 N | 27 E | WM | 36 | 500, 600, 700 | NE NE | | | | | |
| 4 N | 4 N 27 E WM 36 800 NW NE | | | | | | | | | |

12. Transfer application T-11062 also proposes to sixteen additional points of appropriation for the above described right located:

| Twp | Rng | Mer | Sec | Q-Q | Measured Distances | |
|-----|------|-----|-----|-------|--|--|
| 4 N | 27 E | WM | 25 | SW SE | WELL #111 - 150 FEET NORTH AND 500 FEET EAST FROM THE S¼ CORNER OF SECTION 25 | |
| 4 N | 27 E | WM | 25 | SW SE | WELL #119 - 250 FEET NORTH AND 50 FEET EAST FROM THE S ¹ / ₄ CORNER OF SECTION 25 | |
| 4 N | 27 E | WM | 25 | SW SE | WELL #120 - 20 FEET NORTH AND 1200 FEET EAST FROM THE S¼ CORNER OF SECTION 25 | |
| 4 N | 27 E | WM | 36 | NE NE | WELL #105 - 50 FEET SOUTH AND 1300 FEET WEST FROM THE NE CORNER OF SECTION 36 | |

| Twp | Rng | Mer | Sec | Q-Q | Measured Distances |
|-----|------|-----|-----|-------|--|
| 4 N | 27 E | WM | 36 | NE NE | WELL #112 - 150 FEET SOUTH AND 870 FEET WEST FROM THE NE CORNER OF SECTION 36 |
| 4 N | 27 E | WM | 36 | NW NE | WELL #1 - 2340 FEET NORTH AND 160 FEET EAST FROM THE CENTER OF SECTION 36 |
| 4 N | 27 E | WM | 36 | NW NE | WELL #102 - 2600 FEET NORTH AND 480 FEET EAST FROM THE CENTER OF SECTION 36 |
| 4 N | 27 E | WM | 36 | NW NE | WELL #110 - 2250 FEET NORTH AND 600 FEET EAST FROM THE CENTER OF SECTION 36 |
| 4 N | 27 E | WM | 36 | NW NE | WELL #118 - 1600 FEET NORTH AND 50 FEET EAST FROM THE CENTER OF SECTION 36 |
| 4 N | 27 E | WM | 36 | NW NE | WELL #121 - 2240 FEET NORTH AND 50 FEET EAST FROM THE CENTER OF SECTION 36 |
| 4 N | 27 E | WM | 36 | SW NE | WELL #109 - 1100 FEET NORTH AND 1100 FEET EAST FROM THE CENTER OF SECTION 36 |
| 4 N | 27 E | WM | 36 | SW NE | WELL #114 - 70 FEET NORTH AND 700 FEET EAST FROM THE CENTER OF SECTION 36 |
| 4 N | 27 E | WM | 36 | SE NE | WELL #104 - 70 FEET NORTH AND 950 FEET WEST FROM THE E¼ CORNER OF SECTION 36 |
| 4 N | 27 E | WM | 36 | SE NE | WELL #115 - 70 FEET NORTH AND 500 FEET WEST FROM THE E¼ CORNER OF SECTION 36 |
| 4 N | 27 E | WM | 36 | SE NE | WELL #116 - 1100 FEET NORTH AND 500 FEET WEST FROM THE E¼ CORNER OF SECTION 36 |
| 4 N | 27 E | WM | 36 | SE NE | WELL #117 - 1100 FEET NORTH AND 100 FEET WEST FROM THE E¼ CORNER OF SECTION 36 |

13. The applicant amended the application requesting a Year Round season associated with the Industrial use. The proposed change in character of use to Industrial use associated with a gravel pit operation would not result in enlargement of the right if properly conditioned. In order to avoid enlargement of the right with the extension of the season to year round, the rate shall be limited to 0.103 cfs (46.27 gallons per minute) for YEAR ROUND use, and shall be restricted to a maximum annual volume of water that can be beneficially used to being 41.1 acre-feet per year. The applicant has agreed to a diminished instantaneous pumping rate for the Industrial use.

| AMOUNTS OF WATER (after changes) | | | | | | | |
|-------------------------------------|-------------------------|--|--|--|--|--|--|
| Well# | Aquifer | Rate during Irr. Season 220 days (per 109.9 ac.) | Rate for Year Round Industrial Use (13.7 acres only) | | | | |
| Well #2 and any replacement well | Shallow Alluvial/Basalt | 0.515 cfs (231.02 gpm) | 0.039 cfs | | | | |
| Well #4 and any replacement well | Shallow Alluvial/Basalt | 0.669 cfs (300.33 gpm) | 0.050 cfs | | | | |
| Well #5 and any replacement well | Shallow Alluvial/Basalt | 0.189 cfs (84.71 gpm) | 0.014 cfs | | | | |
| | TOTAL: | 1.373 cfs (616.06 gpm) | 0.103 cfs (46.27 gpm) limited to a Total volume of 41.1 acre-feet per year | | | | |

- 14. The Department's Groundwater Section has determined that further review of the stratigraphy underlying the applicant's property was needed in order to specifically identify the parameters of the aquifers present and which authorized wells appropriate which aquifer. In order to proceed further with this transfer, compliance with OAR 690-380-2110 (2) regarding "same source" is required and the Department took a closer look at Well #2's hydrogeology (UMAT 55219). Department has determined that the authorized wells that comprise Certificate 85536 appropriate one groundwater bearing zone. This source, the "shallow alluvial/basalt aquifer" is composed of inter-fingered sedimentary deposits and basalt flows which communicate water very easily between them. The hydraulic connection between these different strata provides pathways for groundwater movement between the younger sedimentary aquifer system and the upper Columbia River Basalt Group (CRBG) system.
- 15. The principal stratigraphic units underlying the applicant's property, from youngest to oldest, are Pleistocene catastrophic flood deposits, the Alkali Canyon Formation, and the Columbia River Basalt Group and interbedded Ellensburg Formation. The catastrophic flood deposits and the Alkali Canyon Formation are composed of fine- to coarse-grained sediments and together form the shallow alluvial aquifer. Flood basalt flows of the Columbia River Basalt Group (CRBG) are found beneath the sediments and consist of a series of lava flows that are greater than 1000 feet thick in the vicinity of the applicant's property. In some instances, the time interval between basalt eruptions was long enough to allow sediments to accumulate in low-lying areas. The resulting interbeds are part of the Ellensburg Formation. Although unconfined groundwater occurs near the surface of the basalts, most water occurs in confined aquifers that occupy thin rubble zones (interflow zones) that occur at the contacts between lava flows. The thick interiors of the basalt flows generally have very low porosity and permeability and act as confining beds. This physical geometry generally produces a stack of thin, tabular aquifers (interflow zones) separated by thick confining beds (flow interiors). Because of the low permeability of the basalt flow interiors, there is very little (very inefficient) natural connection between the stacked aquifers. Locally, however, a series of roughly west flowing catastrophic floods during the Pleistocene epoch have removed the upper basalt flow (Elephant Mountain Member), the Ellensburg Formation interbed beneath it (Rattlesnake Ridge Interbed), and the top of the next CRB flow (Pomona) forming several east-west trending troughs that were subsequently filled with sedimentary deposits from later floods. As a result, the sedimentary units that commonly overly the CRB flows in most other parts of the Umatilla Basin are locally juxtaposed against them (see attached cross-section). This juxtaposition is hydrogeologically significant as it provides pathways for groundwater movement between the younger sedimentary aquifer system and the upper CRBG system. The ability of groundwater to flow between these two naturally separate aquifer systems indicates that locally they are hydraulically connected and behave as one system, hereafter referred to as the "shallow alluvial/basalt" aquifer.
- 16. The main source of information used to estimate the thickness of the aquifer was hydraulic head data in the form of static water levels measured at each water bearing zone encountered during the drilling of nearby well UMAT 1580 as noted on the driller's log (applicant's "fence well"). The static water level encountered below a depth of 350 feet

below land surface was significantly different than static water levels measured in all water-bearing zones above 350 feet, indicating a separate, distinct deeper basalt aquifer. Therefore, the maximum depth that the applicant may construct a well as authorized by the current, existing authorized wells described in Certificate 85536 shall be limited to a total depth of 350 feet.

- 17. Department finds, based on the information provided, that the proposed (existing) points of appropriation, Well #1 (UMAT 55218) and Well #112 (UMAT 55220) develop the same (source) aquifer as that of the original authorized wells and complies with the Department's administrative rule under OAR 690-380-2110 (2) and OAR 690-380-4010(2)(e). The remaining new proposed wells are also located within the Ordnance Critical Groundwater Area (CGWA) and the proposed construction of Wells #102, #104, #105, #109, #110, #111, #112, #114, #115, #116, #117, #118, #119, #120 and #121 will also develop water from the same source (aquifers) as those of the original authorized Well#2, Well #4 and Well#5. The proposed construction of any wells yet to be drilled targeting this "shallow alluvial/basalt" aquifer will be limited to only developing water from the shallow alluvial and basalt materials overlying the deeper, Umatilla Basalt aquifer. In no instance shall the Umatilla Basalt aquifer be penetrated. The Department requires the driller to stay within a total maximum depth of 350 feet below land surface.
- 18. The new proposed Ingram wells will likely penetrate the shallow alluvial/basalt aquifer, a groundwater source which acts as storage (a groundwater reservoir). Extending the season of use to year-round at a decreased rate for industrial use would not adversely impact other groundwater rights and other groundwater sources within the critical GW area. The Department also reviewed the timing and magnitude of impacts on streamflow from groundwater pumping (stream depletion) and proximity of the proposed wells in relation to the Umatilla River. At this distance, greater than 6,000 feet, impacts from groundwater pumping during the irrigation season are spread evenly throughout the entire year. Stream depletion outside of the irrigation season will not increase under the new use.
- 19. Because there is still some uncertainty regarding the thickness of the aquifer and its total depths, in order to avoid commingling aquifers, the Department has also determined that the applicant's proposal to construct new wells in the "shallow alluvial/basalt" aquifer will require:
 - A) Static water levels be measured in each water-bearing zone during drilling of any new wells under this water right (see Condition Item #6).
 - B) Wells targeting the "shallow alluvial/basalt" aquifer shall be limited to a maximum total depth of 350 feet below land surface or a change in static water level between water-bearing zones in the proposed open interval, whichever is shallower. The applicant shall demonstrate, using packer tests or other suitable methods, that the hydraulic heads of water-bearing zones in the proposed open interval are similar enough to prevent loss of artesian pressure from one zone to another.

- C) Before any new wells are drilled, the applicant shall instruct the well constructor to contact the Groundwater Section of the Water Resources Department to arrange for the collection of drill cuttings.
- 20. On December 18, 2014, the Department mailed a copy of the draft Preliminary Determination proposing to approve Transfer Application T-11062 to the applicant. The draft Preliminary Determination set forth a deadline of January 19, 2015, for the applicant to respond. The applicant responded on January 9, 2015 requesting to extend the Completion "C" date to October 1, 2018. The applicant also requested that the Department proceed with issuance of a Preliminary Determination and provided the necessary information to demonstrate that the applicant is authorized to pursue the transfer.

Transfer Review Criteria (OAR 690-380-4010)

- 21. Water has been used within the last five years prior to the submittal of Transfer Application T-11062 according to the terms and conditions of the right. There is no information in the record that would demonstrate that the right is subject to forfeiture under ORS 540.610.
- 22. Wells, pumps, pipeline, and sprinkler system sufficient to use the full amount of water allowed under the existing right were present within the five-year period prior to submittal of Transfer Application T-11062.
- 23. The proposed changes would not result in enlargement of the right, provided the rates of diversion and total maximum volume diverted for the Year Round Industrial Use do not exceed 41.1 Acre-Feet. The water right is limited to an instantaneous rate during the irrigation season of 1.37 cfs from the "shallow alluvial/basalt" aquifer as described in detail above. The water user or driller shall not penetrate and/or appropriate any of the underlying Umatilla Basalt aquifer. The driller should acknowledge when the Selah Interbed is reached and penetrated, indicating it is time to stop drilling. This distance will change as the elevation of each drill site changes, but shall be restricted to 350 feet below land surface.
- 24. The proposed changes would not result in injury to other water rights.

Determination and Proposed Action

The additional points of appropriation, and changes in place of use and character of use proposed in Transfer Application T-11062 appear to be consistent with the requirements of ORS 537.705 and 540.505 to 540.580 and OAR 690-380-5000. If protests are not filed pursuant to OAR 690-380-4030, the application will be approved.

If Transfer Application T-11062 is approved, the final order will include the following:

- 1. The additional points of appropriation, changes in place of use, and change in character of use proposed in Transfer Application T-11062 are approved.
- 2. The right to the use of the water is restricted to beneficial use at the place of use described, and is subject to all other conditions and limitations contained in Certificate 85536 and any related decree.
- 3. Water right Certificate 85536 is MODIFIED. Certificate 85536 will be canceled upon final approval of T-11786 (Singh) and upon final approval of this transfer T-11062 (Ingram).
- 4. Water shall be acquired from the same aquifer (water source) as the original points of appropriation.
- 5. The quantity of water diverted at the new additional points of appropriation, together with the amounts diverted at the original points of appropriation, shall not exceed the quantity of water lawfully available at the original points of appropriation. The water right is limited to a total maximum instantaneous rate of 1.37 cfs for irrigation (109.9 acres) during the irrigation season of March 10 thru October 15 of each year. The amount of water diverted for YEAR ROUND Industrial use is limited to an instantaneous rate of 0.103 cfs (46.27 gpm) from any well in any combination and further restricted to a maximum total annual duty of 41.1 acre-feet per year.
- 6. Before any new wells are drilled, the water user shall:
 - a. Instruct the well constructor to contact the Groundwater Section of the Water Resources Department to arrange for the collection of drill cuttings.
 - b. Instruct the well constructor to measure the static water level in each water bearing zone in each well being drilled.
 - c. Instruct the well constructor to limit the final depth of any new well to 350 feet below land surface and in no way should penetrate the deep Umatilla Basalt layer.
 - d. Instruct the well constructor to recondition Well #3 (UMAT 55220) to meet well construction standards. No original well log exists for this well so the existence of a surface seal is uncertain.

- 7. Water use measurement conditions:
 - a. Before water use may begin under this order, the water user shall install a totalizing flow meter, or, with prior approval of the Director, another suitable measuring device at each point of appropriation (new and existing) or at each new point of appropriation.
 - b. The water user shall maintain the meters or measuring devices in good working order.
 - c. The water user shall allow the Watermaster access to the meters or measuring devices; provided however, where the meters or measuring devices are located within a private structure, the Watermaster shall request access upon reasonable notice.
- 8. The former places of use of the transferred right shall no longer receive water under the right.
- 9. Full beneficial use of the water shall be made, consistent with the terms of this order, on or before October 1, 2018. A Claim of Beneficial Use prepared by a Certified Water Right Examiner shall be submitted by the applicant to the Department within one year after the deadline for completion of the changes and full beneficial use of the water.
- 10. After satisfactory proof of beneficial use is received, a new certificate confirming the right transferred will be issued.

Dated at Salem, Oregon this <u>5</u> day of February, 2015.

Dwight French, Water Right Services Administrator, for

Thomas M. Byler, Director

Oregon Water Resources Department

This Preliminary Determination was prepared by Ken Dowden. If you have questions about the information in this document, you may reach me at 541-278-5456 or Ken.D.Dowden@wrd.state.or.us.