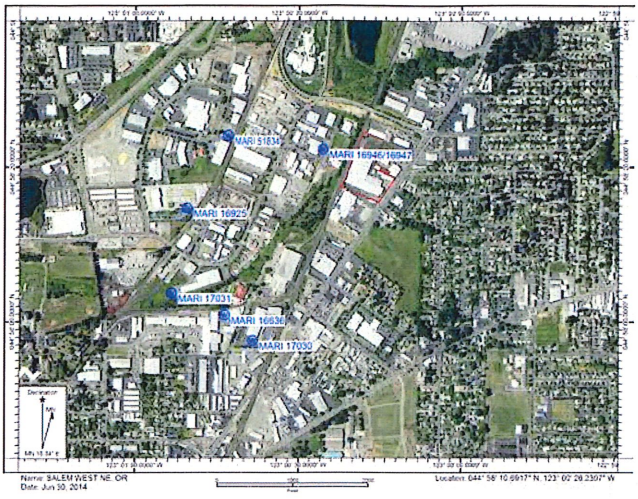

Beneficial Water Use Determination

Former Nielsen Manufacturing Property
3501 Portland Road NE
Salem, Oregon

July 25, 2017

Prepared for:

Salem-Keizer School District
Attn: Bruce Lathers
3630 State Street
Salem, OR 97301

Prepared by:

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ENW Project No. 689-14001-08

This

Beneficial Water Use Determination

for

Former Neilsen Manufacturing Property
3501 Portland Road NE
Salem, Oregon

has been prepared for

Salem-Keizer School District
Attn: Bruce Lathers
3630 State Street
Salem, OR 97301

by:

EVREN NORTHWEST INC.
environmental natural resource consultants

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List of Acronyms

bgs	below ground surface
BWUD	beneficial water use determination
Client	Salem-Keizer School District
ECSI	Environmental Cleanup Site Inventory
ENW	EVREN Northwest, Inc.
EPA	U.S. Environmental Protection Agency
GRID	Ground Water Information Database
LOF	Locality of the Facility
NMI	Neilsen Manufacturing Inc.
ODEQ	Oregon Department of Environmental Quality
OWRD	Oregon Water Resource Department
POD	Point of Diversion
RBCs	risk-based concentrations
SSI	Screening Site Inspection
USGS	U.S. Geological Survey
WRIS	Water Rights Information System

Beneficial Water Use Determination

Former Nielsen Manufacturing Property
3501 Portland Road NE
Salem, Oregon

1.0 INTRODUCTION

At the request of Salem-Keizer School District (Client), EVREN Northwest (ENW) conducted a beneficial water use determination (BWUD) for the Former Nielsen Manufacturing property referenced above (subject site; Figure 1).

The BWUD was completed in general accordance with the July 1, 1998 Oregon Department of Environmental Quality (ODEQ) *Guidance for Conducting Beneficial Use Determinations at Environmental Cleanup Sites (Final)*. The BWUD identifies current and reasonably likely future uses of water within the locality of the facility (LOF) for the subject site. The BWUD was performed to identify likely potential receptors that could contact regulated hazardous substances originating from the subject site.

The following documents and information sources were used in preparing the BWUD:

- U.S. Geological Survey (USGS) maps
- Oregon Water Resources Department (OWRD) Ground Water Information Database (GRID) and Water Rights Information System (WRIS)
- City of Salem, Zoning and Planning Department

1.1 Background

Nielsen Manufacturing Inc. (NMI) manufactured precision-cut parts and metal cabinets from sheet aluminum at the subject site from 1957 through about 2005. NMI's manufacturing operations and waste management practices came under scrutiny by the U.S. Environmental Protection Agency (EPA) in the 1980s. The site was entered in October 1987, to the EPA Preliminary Site Assessment database, which was intended to identify potential hazards at the site. In December 1988, the EPA through their contractor Ecology and Environment, conducted a Screening Site Inspection (SSI) at the site.[1] Based on the results of the SSI, the EPA recommended further assessment of soil and ground water beneath the site. The EPA issued a No Further Remedial Action Planned under the Federal Program in May 1993. The site was added to ODEQ's Environmental Cleanup Site Inventory (ECSI) database on April 5, 1988, per the recommendations of the EPA SSI. Continuing investigations, including a risk assessment and

[1] Ecology & Environment, 1988. *Site Inspection Report for Nielsen Metal Industries, Inc., Salem, Oregon*, TDD F10-8801-01, submitted to J.E. Osborn, Regional Project Officer Field Operations and Technical Support Branch, U.S. Environmental Protection Agency Region X, Seattle, Washington, December 1988.

interim remedial measures are being completed by the property owner under oversight by ODEQ's Site Assessment Program (ECSI site #220).

From June 2014 through January 2017, multiple soil and ground water investigations were completed at the site in conjunction with the leasing of the property to the Salem-Keizer School District.[2] Investigation results revealed the following:

- Sampling from multiple exploratory borings detected hexavalent chromium in surface soils at concentrations exceeding ODEQ's screening level risk-based concentrations (RBCs) for the *Soil Ingestion, Dermal Contact, and Inhalation* soil exposure pathway. The immediate risk to site occupants is greatly reduced or eliminated by the presence of buildings and/or hardscape covering the impacted shallow soils.
- Dissolved chromium in ground water was detected in four (4) temporary borings and one ground water monitoring well at concentrations exceeding the ODEQ's screening level RBCs for *Ingestion & Inhalation from Tapwater*.

It should be noted that an assessment of risk for this site has not been completed at this time and only risk-based screening has been conducted to date. ODEQ RBCs are based on Oregon unacceptable additional risk criteria for cancer occurrence and for non-carcinogenic health impacts. ODEQ's lowest RBC for residential receptors is used for initial 'conservative' screening. If a constituent's concentration exceeds its screening-level RBC (SLRBC), it requires further evaluation and is identified as a constituent of potential concern (COPC).

1.2 Purpose

This BWUD evaluates the occurrence and beneficial use of surface and ground water near the subject site, to support an assessment of potential risk to human and ecological receptors.

1.3 Scope

The scope of this evaluation includes the following:

- Review of regional and site geology and hydrogeology and site zoning (site characterization).
- Development of a Conceptual Hydrogeologic Model and identification of a preliminary area of potential concern to be screened for ground water beneficial uses.
- Review of public water supply sources and distribution.
- Review of available water well data, including a well log database search.

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[2] Ktec Environmental Consulting, 2014. *Phase II Limited Site Investigation Report*, prepared for Larry Tokarski, c/o Mountain West Investments, Mission Advancement, 201 Front Street NE, Ste 400, Salem, OR 97301, September 9, 2014.

- Review of water rights and permits in the vicinity of the site.
- Identification of other beneficial uses of water in the vicinity of the site.

2.0 SITE SETTING

2.1 Description and Location

The subject property is identified by Marion County as tax lot 500 of Map 07S3W12CC comprising 7.83 acres. The subject property is located northeast of the city of Salem, bounded by Portland Road to the east and Burlington Northern Santa Fe (BNSF) Railroad to the west. A single building occupies the site and most the space is occupied by the Career and Technical Education Center for the Salem-Keizer School District. The location of the site is presented on the Site Vicinity Map shown on Figure 1. Site features, including buildings and adjoining properties are presented on the Site Plan shown on Figure 2. A Zoning Map is presented in Figure 3.

2.2 Climate

Salem, Oregon has a temperate climate with warm, dry summers and cool wet winters and transitional spring and fall seasons. Average rainfall is approximately 36 inches per year, with most of it falling in liquid form in November through May. Average temperatures range from 45°F to 63°F; however, with summer high temperatures getting as high as 100°F and winter lows near 30°F.

2.3 Topography

The subject site is located within the USGS Salem West, OR 7.5-minute quadrangle, at an approximate elevation of 170 feet above mean sea level (see Figure 1). The subject property is generally level with the surrounding area sloping gently to the west.

2.4 Geologic Setting

The site is in the central Willamette Basin, a major physiographic province in western Oregon, centered on the north-south trending Willamette Valley and north-flowing Willamette River. Marine and volcanic basement rocks, and sediments have filled the Willamette Basin over long periods of time. The site area is underlain, in order of increasing depth, by the Willamette Silt of Gannet and others,[3] the Troutdale Formation, basalt flows of the Miocene age Columbia River Group, and marine rocks.

The Willamette Silt unit consists of silt and fine sand deposited in the central and southern Willamette Valley by late Pleistocene glacial outburst floods. Borings completed at the subject property penetrated the Willamette Silt unit, which locally consisted of brown, medium stiff to stiff

[3] Gannett, M.W., and Caldwell, R.R., 1998, Geologic framework of the Willamette Lowland Aquifer System, Oregon and Washington: US Geological Survey, Professional Paper 1424-A, 32 p., maps (1:250,000).

fine sandy silts to depths of 16.5 to 27.5 feet bgs. Well logs within ½ mile of the site document the Willamette Silt unit extending to depths of 22 feet bgs (MARI 17030) to 50 feet bgs (MARI 16946).

The Troutdale Formation correlates with the Willamette Aquifer of Gannett and Caldwell (1998).[4] The Troutdale Formation is composed predominantly of sand and gravel with lesser amounts of silt and clay, and serves as the predominant aquifer beneath the Salem-Keizer area. Site borings penetrated the upper portion of this unit beginning at around 16.5 to 27.5 feet bgs, which included uncemented to partly cemented sandy gravels and sandy gravels up to cobble-size extending to the maximum depth explored of 50 feet bgs. Some borings encountered a discontinuous layer of medium dense, gray sand approximately six (6) inches thick at the top of the Troutdale Formation.

Deeper portions of the Troutdale Formation are described in nearby water well logs as "small and medium gravel," and "medium gravel" from 45 to 68 feet bgs; "brown sand" from 68 to 72 feet bgs; and, "medium gravel" from 72 feet to 107 feet bgs (Brookman well, MARI 16947, located a couple hundred feet from the subject property).[5] The Salem Sand and Gravel well (MARI 16926) penetrated gravels (up to 6-inches in diameter) from 92 feet to 135 feet bgs, cemented gravel and sand to 180 feet bgs, and interlayered water bearing gravels, and cemented boulders to 228 feet bgs.

2.5 Hydrogeologic Setting

2.5.1 Surface Water

There are no natural surface water bodies on the subject site. The nearest surface water to the site is Claggett Creek, which is located approximately 500 feet west of the site. In the site area, Claggett Creek is classified as an intermittent stream.[6] Natural surface drainage from the site is to the west towards the Southern Pacific Railroad tracks, providing a barrier to storm water surface flow towards Claggett Creek.

The main stem Claggett Creek is located north of the site in the hydraulically cross-gradient position. Wetland areas and two reservoirs associated with the Claggett Creek main stem are approximately 700 feet from the site and approximately 30 feet lower in elevation.

The Willamette River, located approximately 1.5 miles to the west, is the principle drainage for surface water and ground water in the Willamette Valley. Other surface water bodies within three (3) miles of the site include the Labesh Ditch, the Little Pudding River, and its associated tributaries (West Fork, unnamed fork).

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[4] Gannet, Marshall W. Caldwell, Rodney R., Geologic Framework of the Willamette Lowland Aquifer System, Oregon and Washington, U.S. Geological Survey Professional Paper 1424-A; 1998.

[5] It should be noted that the wellhead elevation of the Brookman Well is approximately 20 feet lower than that of the subject site.

[6] United States Geological Survey, 1969. Salem West Quadrangle, revised 1986.

2.5.2 Ground Water

Gannett and others describe five regional hydrogeologic units in the Willamette Lowland aquifer system: 1) basement confining unit; 2) Columbia River basalt aquifer; 3) Willamette confining unit; 4) the Willamette aquifer; and 5) the Willamette Silt unit. The principal aquifers beneath the subject property occur in the Willamette aquifer (Troutdale geologic unit), and to a lesser degree within the underlying fracture zones of the Columbia River basalt group.[7] Therefore, the following discussion will focus on the Willamette aquifer (Troutdale) system.

The Troutdale Formation is composed predominantly of sand and gravel with lesser amounts of silt and clay and ranges from less than 20 feet to more than 600 feet thick.

Water bearing zones within the Troutdale aquifer consist primarily of permeable sands and gravels that are a few tens of feet to several tens of feet thick [8] separated by thinner interbeds of sand, silt, and clay. A wide range of sorting and cementation is evident with the layers. Wells tapping the aquifers of the Troutdale Formation in the Salem-Keizer are completed between 60 and 300 feet bgs.

The City of Keizer located approximately 3 miles north of the site operates a system of 15 public water supply wells, which are completed within the Troutdale Formation at depths from 120 to 300 feet bgs. The subject property is within the calculated 10-year time of travel (TOT) of city Well #11 (Willamette Manor, MARI55036), Well #1 (Carlhaven West, MARI63385), and Well #6 (Carlhaven East, MARI63186).[9] Several of the City of Keizer wells have encountered a clay layer of various thicknesses and generally around 10 feet thick and described as brown, blue and grey clay occurring at depths of 60 to 80 feet bgs. Well logs for the closest city of Keizer Drinking Water Supply well report a brown, blue or grey clay at depths ranging from 60 to 98 feet bgs and ranging in thickness between 10 and 18 feet (MARI 55036, MARI 63385, MARI63186, MARI16771). City of Keizer wells withdraw their water exclusively from below this clay layer. Additionally, all of the water supply wells in their system have been constructed or retrofitted with borehole seals at the clay aquitard to prevent contamination of the groundwater supply by surface water or shallow aquifer contaminants.

A similar clay layer is identified in a number of private water supply wells closer to the subject property in Sections 11 and 12, immediately south of the city of Keizer wells. The closest water supply well on the adjoining property to the southwest (Dutch Maid Food Products Well; MARI17005) reports a "blue clay" from 50 to 67 feet bgs. This well is screened below the blue clay at 82 to 94 feet bgs. A "blue clay" is also reported in the Salem Sand and Gravel well

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[7] USGS, 1972. Geological Survey Water-Supply Paper 1997, Geology and Ground Water of the Molalla-Salem Slope Area, Northern Willamette Valley, Oregon

[8] Woodward Dennis G., Gannet Marshall W. Vaccaro John J., Hydrogeologic Framework of the Willamette Lowland Aquifer System, Oregon and Washington, USGS Professional Paper 1424-A,

[9] ODEQ Drinking Water Protection Program Interactive Map, "Drinking Water Source Areas and Potential Contaminant Sources." (Available at http://deq14.deq.state.or.us/Html5viewer261/?viewer=drinkingwater).

(MARI16926) at the 59 to 66-foot depth (not corrected for wellhead elevation). The Salem Sand and Gravel well is perforated above and below the clay layer. The Siltec Well (MARI51834) reported a "gray clay" from 75 to 88 feet and perforations below the clay at 105 to 137 feet bgs. Other wells reporting similar potential confining units include:

- MARI16951 ("blue clay" 22' to 29')
- MARI 16958 ("blue clay" 37' to 42')
- MARI 16979 ("blue clay" 24' to 34')
- MARI 16941 ("blue clay" at 75')
- MARI 16934 ("blue clay" at 77')
- MARI 59597 ("sand with gray clay" at 71 to 84').

Other nearby wells (MARI16959, MARI17030, MARI16947) do not report the clay layer.

Ground water was encountered beneath the subject property within sandy gravels at 38 to 45 feet bgs during recent field investigations. Ground water production (rate of recharge from temporary wells) was sufficient for ground water sampling without going dry during low-flow purging.

Ground water potentiometric data from monitoring wells have not been collected at the site. Ground water elevations in several ground water monitoring wells at a nearby UST cleanup site[10] at 3387 Portland Road indicate ground water generally flowed north to northwest beneath the site during quarterly monitoring events. However, multiple factors can affect the direction of ground water flow in subsurface layers including, but not limited to, sediment/rock type, subsurface utility lines, buried river valleys and stream beds, folds, fractures, and faults.

3.0 LOCALITY OF FACILITY (GROUND WATER)

The LOF is defined as any point where a human or an ecological receptor is reasonably likely to encounter facility-related hazardous substances. The LOF considers the likelihood of the contamination migrating over time and may be larger than the facility's property boundaries. The LOF described in this section incorporates information on the local topography and hydrogeology, as well as known information on facility-related impacts, as they are understood currently. It should be noted that the lateral extent of dissolved contaminants (hexavalent chromium in well MW-1) has not been delineated below cleanup screening levels (SLRBCs) beneath the subject property. However, the LOF in ground water was developed based on hydrogeologic factors and use of ground water both onsite and in the immediately surrounding area.

Please reference Figure 4 for site details, including boring and monitoring well locations and recent ground water sampling results at the subject site, as well as Figure 5.

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[10] TOC Holdings Co. (TOSCO) Property No. 03-480, 3367 Portland Road NE, Salem, OR. LUST No. 24-07-0828

3.1 Key Factors Used

The key factors used to identify and define the LOF are as follows:

- **Chemical Impacts** – hexavalent chromium has impacted surface soil and ground water beneath the subject site. Surface soil impacts are likely from past dumping of paint booth and still bottoms sludge directly onto the ground surfaces in the western part of the site (Stills Bottom Disposal Area).

  The mechanism by which ground water has become impacted is most likely the infiltration of storm water reaching the ground water table in areas of impacted surface soils and former sludge disposal areas. Due to its high solubility in water, hexavalent chromium would remain in storm water as it infiltrated through the vadose zone soils prior to reaching the ground water table. Ground water impacted with hexavalent chromium is confirmed in areas of borings B40, B58, B64, B68 and MW-1 located in the former paint booth and still bottoms sludge disposal area.

- **Contaminant Migration** – the migration of hexavalent chromium in ground water is influenced by hydraulic conductivity of the shallow ground water aquifer and ground water flow. Migration of dissolved contaminants in ground water is expected to be toward the west through the processes of advection, dispersion and to a lesser degree through chemical diffusion.

- **Soils** – containing chemical impacts are predominantly shallow clayey silts and silts near the surface of the site. With one exceptions, impacted soils are currently located beneath buildings or hardscape surfaces. A small area currently landscaped is uncovered, but is protected by a perimeter fence to prevent site occupants from coming into contact with the impacted soils. The risk of exposure to shallow soil impacts would be increased if buildings or hardscapes were removed in the future.

- **Shallow Ground Water** – ground water sample data indicate that site-related contaminants have impacted the Troutdale aquifer from which several domestic and industrial use water wells in the project area derive their water (Section 4.1). Regional ground water is expected to flow northwest to north toward the mainstem of the Claggett Creek and Willamette River. Ground water impacts were confirmed at the approximately 45 feet depth beneath the site, and downward migration could be occurring by pumping from deeper local wells. It is unclear at this time whether a clay aquitard exists at depth of around 60 feet in the project site vicinity, but it has been confirmed to be laterally continuous to partly continuous beneath the Keizer area. Keizer city wells are protected from shallow ground water contamination by well seals placed at the clay aquitard. In general, dilution effects would act to decrease concentrations of dissolved chromium before reaching any off-site water wells.

- **Surface Water** – there are no surface water bodies on the subject property or any of its adjoining properties. The nearest surface water to the site is Claggett Creek, an

ephemeral stream. Shallow ground water within the Willamette Silts (where present) and the upper portions of the Troutdale aquifer may be in hydraulic connection with, and ground water could daylight at the mainstem of Claggett Creek and associated wetland areas to the north, although CrVI is unlikely to impact surface waters due to distance (over 1,000 feet).

3.2 Boundaries Defined

The western ground water boundary is conservatively defined by the location of Claggett Creek, located 500 feet in the down-gradient direction. Claggett Creek was chosen based on its hydraulically down-gradient position relative to source area and as it likely forms a shallow ground water hydraulic divide.

On this basis, the LOF is conservatively defined as an area:

- Bounded to the northeast by cross-gradient temporary borings absent of impacts.
- To the north-northwest (down-gradient) by Bill Frey Drive.
- To the west by Claggett Creek (conservatively includes the Brookman well).
- To the east by the subject property boundary and Portland Avenue.
- To the south by the subject property boundary.

This information will serve as the area of focus for this beneficial water use determination. The extent of the LOF is shown on Figure 5.

4.0 WATER WELL RECORDS

4.1 Oregon Water Resources Department (OWRD) GRID Database

ENW reviewed water supply well logs on the Oregon Water Resources Department (OWRD) Ground Water Information Database (GRID). Water well logs within the following ¼ sections were reviewed:

- SW ¼ of Section 12
- SE ¼ of Section 11
- NE ¼ of Section 14

Well logs within the search area are summarized in Table 1 (after text), and a copy of the well logs are presented in Attachment A.

The database review identified 16 well logs within the search area. Of the of 16 well logs identified, eight (8) logs were for well abandonment and one (1) well log is for alteration of an existing well. The resulting seven (7) wells within the search area are mapped on Figure 5. All seven (7) wells are completed between 92 feet and 250 feet bgs and are listed for industrial use.

During the search of wells inside the prescribed search area, one industrial water supply well was located just outside of the search in Section 3. The Leonard Hays Well, MARI16855 is included in the evaluation of water use because its location is down gradient of the site and has a relatively shallow completion depth.

Further information on each of the mapped wells is briefly presented below, listed in order of distance from the site.

Marion County 17005 (Dutch Maid Food Products): This industrial well is located on the adjoining property to the southwest at 3371 Portland Road NE. The well was drilled in 1961 to a depth of 144 feet bgs. The well driller's notes indicate the borehole penetrated "yellow clay" and yellow clay sandy" from near surface to 22 feet bgs; "sand and gravel" from 22 to 50 feet bgs; "blue clay" from 50 to 67 feet bgs; and, "hard & loose gravel" from 67 to 144 feet bgs. The well is perforated across gravels from 82 to 94 feet bgs.

Marion County 16946/16947 (Brookman): The Brookman well is located at 3530 Brady Court NE, directly to the west across the Southern Pacific Railroad tracks from the subject property (presumed hydraulically down-gradient) of the site. Well log information indicates the original well withdrew ground water through unperforated casing set at 107 feet bgs. A cement surface well seal has been placed from the surface to 20 feet bgs. Perforations were later cut into the casing from 80 to 95.5 feet and from 100 to 105 feet bgs to increase well efficiency (see alteration well log MARI 16947).

Marion County 51834 (Siltec Corporation): The Siltec well is located at 1361 Tandem Avenue NE, approximately 1,800 feet west-northwest of the subject property in the presumed down-gradient direction from the site. According to well construction details, the borehole was drilled to 140 feet bgs in 1996 and completed as a well with 12-inch casing with 3/8" perforations installed from 105 to 137 feet bgs. A bentonite surface seal has been emplaced in the upper 19 feet of the borehole. The depth at which water was first found was 21 feet bgs, stabilizing out to a static water level of 12 feet bgs, indicating a confined to semi-confined condition. Well drillers reported a "gray clay" from 75 to 88 feet bgs.

Marion County 16925 (Columbia Metals): This well record documents an industrial use well in the SW ¼ of the SE ¼ of Section 11 with no address or corresponding drillers log. Limited information in the well record indicates this well is drilled to 200 feet bgs and is constructed with 12-inch casing installed to 193 feet bgs with perforations from 151 to 156 feet bgs.

Marion County 17031 (Salem Nut Growers): This well report is for an industrial well located in the NW ¼ of the NE ¼ of Section 14, between 0.25 to 0.5 mile southwest of the site in the presumed down gradient direction. The well was drilled in 1947 to a depth of 92 feet bgs. No screened interval is reported, so the well presumably derives water from the base of its 12-inch casing at 92 feet bgs.

Marion County 17030 (NW Natural Gas Co.): This well is identified as "not a water well" and its use is indicated as "other." The well log locates this boring at Portland Road and Beech Street,

approximately 2,300 feet southeast of the subject site. Drilled to 250 feet bgs, this boring is the deepest in the search area. Drill tooling first encountered the Troutdale Formation at approximately 40 feet bgs. Course black sand, coarse sand and gravel, cemented sand & gravel with cobles, and boulders are reported to extend to 235 feet bgs according to well driller's notes. Gravel with some clay and red clay occur from 235 to 250 feet bgs. A "sandy clay" is reported at 35 to 40 feet bgs.

Marion County 16636 (Cascade Meats): The well report for this industrial use well locates the well in the SE ¼ of the NE ¼ of Section 14 near the Southern Pacific Railroad crossing at Portland Road, approximately 3,000 feet southeast of the subject property. The well record indicates this well is drilled to 181 feet bgs and is cased to 161 feet bgs with perforations at 65 to 77 feet bgs, 123 to 128 feet bgs, 134 to 138 feet bgs, and 141 to 151 feet bgs. No well drillers logs are included with the report. Static ground water in the well is reported at 29 feet bgs. "Sand & gravel – yellow clay binder" is reported at 77-121 feet bgs.

Marion County 16855 (Leonard Hays): The Hays well is approximately 3,000 feet north-northwest and in the presumed down-gradient direction from the site. This well is outside of the prescribed search area, but is included based on its down gradient location. The well log reports the well derives its water from unperforated casing installed to 43 feet bgs. The elevation of the wellhead is estimated at 142 feet AMSL, or approximately 30 feet below the elevation of the subject site. Well driller's notes describe "yellow silty clay" from 2 to 26 feet bgs, and "brown sand & gravel" from 26 to 43 feet bgs. Based on its distance from the site, the Hays well is unlikely to be impacted by site contaminants.

4.2 Door to Door Survey

ENW performed a door-to-door survey of properties in the immediate vicinity of the site to identify any evidence of additional water wells in use in the area. The survey encompasses most of the commercial businesses within the Salem Industrial Park to the west of the site. Businesses that did not have personnel available to interview were left with a questionnaire requesting the information.

Verbal response was gathered from 10 of the 15 businesses surveyed however, none of the businesses completed and returned questionnaires. None of the workers surveyed were aware of any active water wells in the search area.

Since the database search had identified an active well at the commercial property at 3530 Brady Court (Brookman Well). During the door-to-door survey, the current business owners at this address (West Coast Seed) were not aware of the well. Mr. Brookman, the property owner, was contacted by ENW by telephone to discuss the current and future use of this well.[11] Mr. Brookman stated that the well is currently capped and unused. The well was formerly connected to a

[11] ENW. July 10, 2017. Telephone interview with Mr. Brookman.

furnace, which was used for metal working. The property is currently connected to city water and the current West Coast Seed no intention of using the well in the future.

4.3 Municipal Water Supplies

Potable water for the subject site and surrounding properties is currently supplied by the City of Salem and will likely continue for the foreseeable future. The City of Keizer whose boundary lies approximately 0.5 mile north of the subject property operates their own water system.

The City of Salem obtains its drinking water from an intake on the North Santiam River. The intake is located on Geren Island near the city of Stayton, about 17 miles east of Salem in the Little North Santiam River/Middle North Santiam River/Lower North Santiam River Watershed in the North Santiam Sub-Basin of the Willamette Basin. Salem Public Works also uses ground water wells for drinking water supply. Salem also operates an aquifer storage and recovery system that is included in their wellhead protection program. Together, the Salem Public Work provides public water for approximately 155,000 citizens.[12] A search of the OWRD GRID database did not identify any of the city water supply wells in the same township-range-section as the subject property.

The City of Keizer, located within a 3-mile radius of the site, obtains drinking water from 13 municipal wells within the city limits, which tap the Troutdale aquifer 90 to 250 bgs. These well supply potable water to an estimated population of 36,478.[13]

5.0 REVIEW OF OWRD'S WATER RIGHTS, PERMITS, AND CLAIMS

The waters of Oregon collectively belong to the public and cannot be owned by any one individual or group. Instead, individuals or groups may be granted rights to use them. A water right is a legal authorization to use a predefined quantity of public water for a designated purpose. Any use of surface water (e.g., lakes, ponds, rivers, streams, or springs) and any use of ground water requires a water-right permit or certificate.

ENW accessed OWRD's Water Rights Database and Mapping Tool to research water rights, permits, and claims in the vicinity of the subject property (see Attachment B and Figure 6).

5.1 Surface Water Rights

Surface water rights exist northwest of the subject property along Clear Lake. Surface water rights are held by a commercial property for industrial and manufacturing purposes as listed in Table 5-1. The nearest points of diversion (POD) for surface water rights are over one-half mile from the subject site. PODs for surface water rights are illustrated on Figure 6.

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[12] 2010 United States Census.

[13] 2010 United States Census.

Table 5-1. Surface Water Rights 7S3W Section 11, 12 and 14 Point of Diversion

Water Right Certificate	Date	Use	Point of Diversion / Stream Name
12317 IM River Bend Sand and Gravel	10/03/1991	Industrial/Mfg.	Clear Lake- SW1/4, NW1/4, Sec 12, T7S, R3W

5.2 Ground Water Rights

Oregon Water Law exempts the following ground water uses from permitting and water rights regulations:

1. Stock watering.
2. Lawn or noncommercial garden: watering of not more than one-half acre in area.
3. Single or group domestic purposes: not exceeding 15,000 gallons per day.
4. Single industrial or commercial purposes: not exceeding 5,000 gallons per day.
5. Down-hole heat exchange uses.
6. Watering school grounds: ten acres or less, of schools located within a critical ground water area.

Figure 6 indicates there are several ground-water rights points of diversion (i.e., certificates of use of water from wells) in the vicinity of the subject property. A summary of the closest ground water rights is summarized in Table 5-2.

Table 5-2. Ground Water Rights 7S3W Section 11, 12 and 14 Points of Diversion

Water Right Certificate	Date	Use	Point of Diversion / Stream Name
GR 152 IM Harvey Machine Co.	4/6/1949	Industrial/Mfg.	A Well Mill Creek - NE1/4, SW1/4, Sec 14, T7S, R3W
GR 182 IR James Garson	4/6/1949	Irrigation	A Well Mill Creek - NE1/4, SW1/4, Sec 14, T7S, R3W
GR 211 IR Sylvia Allen	9/25/1954	Irrigation	A Well Claggett Creek -NW1/4, NE1/4, Sec 11, T7S, R3W
GR 4211 IM Salem Nut Growers	8/1/1947	Industrial/Mfg.	A Well Mill Creek -
GR 1554 IM Cascade Meats	11/14/1948	Industrial/Mfg.	Well 1 Mill Creek SE ¼, NE ¼, T7S, R3W
GR 2028 IR Charles Kramer	2/28/1952	Irrigation	A Well Claggett Creek SE ¼, NE ¼ T7S, R3W
GR 2703 IR Lewis Welch	3/5/1955	Irrigation	A Well Claggett Creek SW ¼, NE ¼, T7S, R3W

As indicated in Table 5-2, several private companies hold a certificate for ground water rights in the Mill Creek and Claggett Creek watersheds. Water rights for ground water confirm the well log

search information above and include industrial/manufacturing and irrigation use only. None of the ground water rights within the search area were issued for domestic purposes.

6.0 DISCUSSION OF BENEFICIAL USES OF WATER

Water well records indicate there are no domestic water wells within at least one-quarter (0.25) mile of the site. The nearest water wells include one (1) unused industrial well reportedly located at 3530 Brady Court, approximately 200 feet west of the subject property. During a door-to-door survey, the current business owners at this address were not aware of the well and the owner stated the well was utilized as part of previous industrial activities and is capped and no longer used. Domestic water supply for the subject property and surrounding area is currently and is anticipated in the future to be provided by the city.

A review of surface water rights within the site vicinity has identified old and possibly outdated (i.e., unutilized) rights for industrial use of surface waters from Clear Lake. Based on distance alone, these surface waters are not likely to be impacted since their PODs are distal to the site.

6.1 Other Beneficial Uses

Geothermal Heating and Cooling. Ground water may be used as a geothermal heating and cooling resource. In most applications, geothermal heating and cooling entails return of ground water to the resource through re-injection. No reviewed well logs or water rights indicated/suggested use of ground water for geothermal heating and cooling; however, these beneficial uses should not be affected by the residual impacts at the subject property.

Surficial Vegetation. Shallow ground water (depth of greater than 30 feet bgs) have no obvious hydraulic connection to surface water bodies or surficial vegetation at the subject property.

Recreation and Aesthetics. The parts of Claggett creeks that are closest to the subject property are identified as ephemeral in occurrence. The section of the creek to the west of the site runs through the Salem Industrial Park, which is zoned industrial. In this area, much of the creek is directed through culverts under roads and industrial developed properties and are not open to the public. The closest portions of Claggett Creek are therefore used strictly for storm runoff and not for recreational purposes or as an aesthetic resource. Impacts to ground water beneath the site have not been confirmed to have impacted this surface water body, although it is feasible that ground water is in hydraulic connection with the creek.

The main stem Claggett Creek is located north of the site in the hydraulically cross-gradient position. Wetland areas and two reservoirs associated with the Claggett Creek main stem are unlikely to be impacted by site-related impacts due to their hydraulic position relative to the site.

Wildlife (Ecological). Abernethy Creek and adjoining tributaries provide habitat for birds, fish, and plants in the vicinity of the site. Therefore, ecological receptors may be present, especially near the creeks and riparian zones.

6.2 Summary of Current and Reasonably Likely Beneficial Water Use

Based on water well information and land use, the current and reasonably likely future beneficial use of the shallow ground water in the site vicinity does not include domestic use.

7.0 LAND USE

The subject property is located 2.3 miles northeast of downtown Salem in a commercial and industrial area. The nearest residential neighborhood is located 1,000 feet to the east, in the presumed up-gradient direction. The subject property and adjoining properties to the south and north are zoned IC Industrial Commercial by the Salem Planning Department[14]. Properties to the east of the subject site are zoned CR Retail Commercial. Properties to the west are zoned IG, General Industrial. A zoning map is presented in Figure 3.

Future development plans for the subject property include completion of the recent construction of the career training facility and associated offices. Based on current zoning and development plans, the highest reasonably likely future beneficial land use will continue to be commercial/industrial.

8.0 CONCLUSIONS

ENW evaluated beneficial water use in a conservative LOF that was developed based on location, presumed ground water flow direction, geologic/hydrogeologic literature and contaminant distribution. A review of Oregon Water Resources water well and water rights databases showed:

- The subject property and surrounding area are located in a commercial/industrial area of Salem, Oregon.
- Properties within the site vicinity may utilize ground water from water supply wells for industrial purposes. Municipal water is supplied to the area by the City of Salem water system. The city water system derives its water source from surface waters distal to the subject area.
- Shallow ground water beneath a portion of the subject site is impacted with hexavalent chromium. The lateral extent of ground water impacts is unknown; however, likely extends northward based on plume morphology and documented flow direction. Dissolved contaminants are not expected to migrate a significant distance due to very low concentrations at the suspected source area and likely advective losses (advective flow with mechanical dispersion) down-gradient.
- The ground water beneath the site is not currently being used for domestic purposes. Future use of shallow ground water for domestic use is unlikely due to the commercial and industrial zoning of the area.

[14] http://www.portlandoregon.gov/bps/index.cfm?c=35100&a=55709, last revised May 13, 2011.

- Several water wells in the area used for industrial/manufacturing purposes are completed in the Troutdale Formation, of which only one is located within the locality of facility for this project. This well has not been tested; however, is currently capped and no longer utilized.
- Based on surface topography, and the presence of an ephemeral creek down gradient of the site, shallow ground water beneath the site has the potential to eventually discharge into downgradient ephemeral surface drainages. Water rights have been granted for use of nearby surface water in the cross gradient direction for industrial/manufacturing use. Due to distance and hydraulic position, onsite ground water impacts are not anticipated to adversely impact surface water right holders.
- Other beneficial uses for surface water such as those that support ecological habitats (Claggett Creek wetland and reservoirs) are not likely to be impacted in the future based on distance and cross gradient locations.

9.0 LIMITATIONS

The scope of this report is limited to observations made during on-site work, interviews with knowledgeable sources, and review of readily available published and unpublished reports and literature. As a result, these conclusions are based on information supplied by others as well as interpretations by qualified parties.

The focus of this survey does not extend to the presence of the following conditions unless they were the express concerns of contacted personnel, report and literature authors or the work scope.

- Naturally-occurring toxic or hazardous substances in the subsurface soils, geology and water.
- Toxicity of substances common in current habitable environments, such as stored chemicals, products, building materials and consumables,
- Contaminants or contaminant concentrations that are not a concern now but may be under future regulatory standards.
- Unpredictable events that may occur after our site visit, such as illegal dumping or accidental spillage.

ENW have performed services for this project in accordance with our agreement and understanding with the Client. This document and the information contained herein have been prepared solely for the use of the Client.

ENW performed this study under a limited scope of services, per agreement. It is possible, despite the use of reasonable care and interpretation, that we may have failed to identify regulation violations related to the presence of hazardous substances other than those specifically mentioned at the closure site. We assume no responsibility for conditions that we did not specifically evaluate or conditions that were not generally recognized as environmentally unacceptable at the time this report was prepared.

TABLE

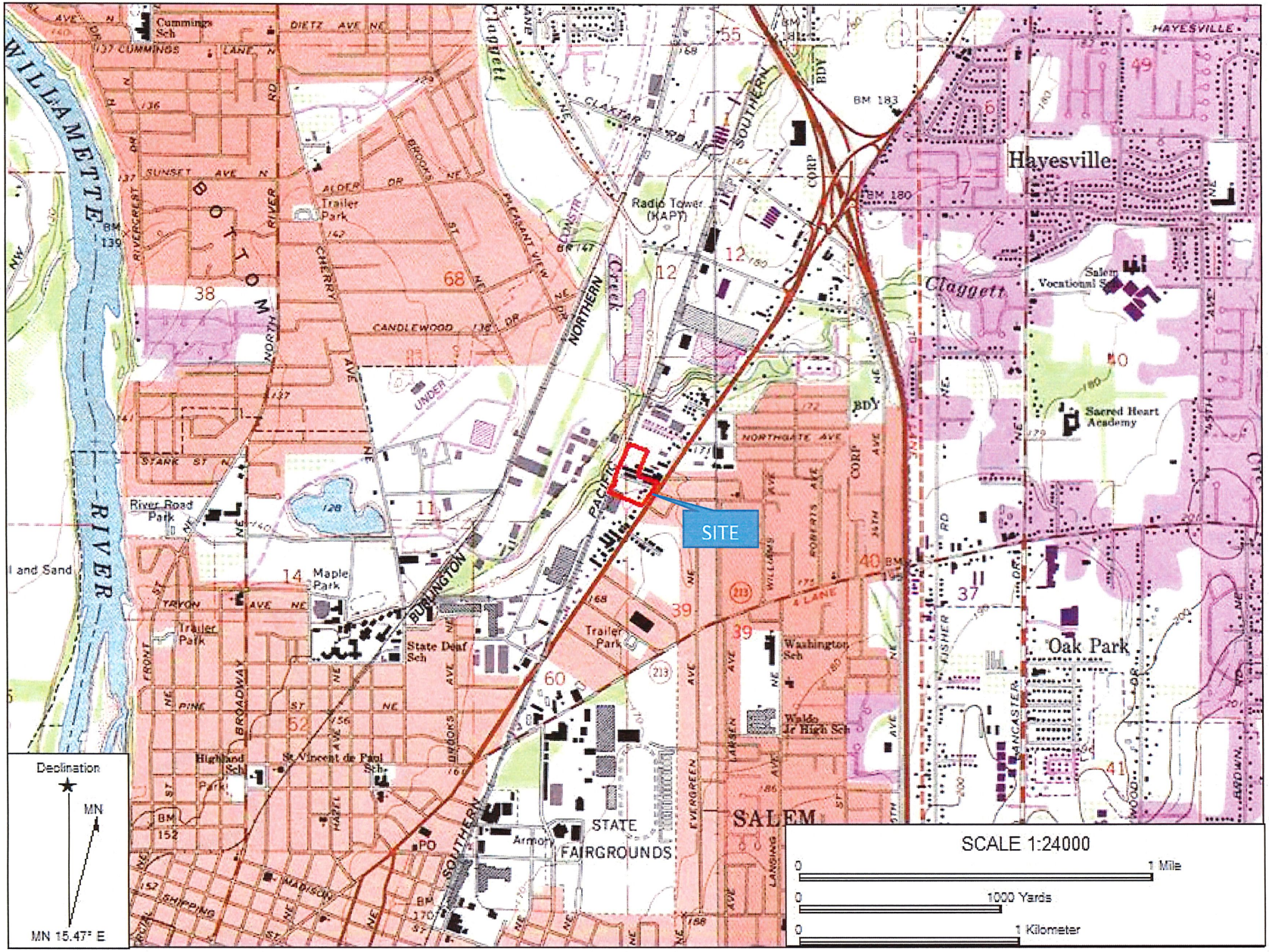
water	drilled	depth	level	work new	alteration	domestic	industrial	sctn	qtr160	qtr40	tax_lot	street_of_
--	144	144	30	X	--	--	X	12	SW	SW	1000	3371 Portland Road Dutch Ma
21	140	140	12	X	--	--	X	12	SW	SW	1700	1351 Tandem Ave NE
--	200	200	--	X	--	--	X	11	SE	SW	--	7/3W-11Q(1)
--	--	--	3	--	X	--	X	12	SW	SW	--	3530 Brady Ct NE
21	110	107	2	X	--	--	X	12	SW	SW	--	3530 Brady Ct NE (well altera
--	62	62	34	X	--	X	--	12	SW	NE	--	3845 Portland Rd. (abandone
--	181	181	29	X	--	--	X	14	NE	SE	--	7/3W-14H; location sketched
--	250	250	--	X	--	--		14	NE	SE	--	Portland Rd NE and Beech Av
--	92	92	30	X	--	--	X	14	NE	NW	--	7/3W-14B; located sketched
--	43	43	22	X	--	--	X	3	NE	SE	--	7/3W-3H

Notes:

Well log mis-identified Section in which it was located; see Figure 5 for correct mapped location

-- Not reported on well log

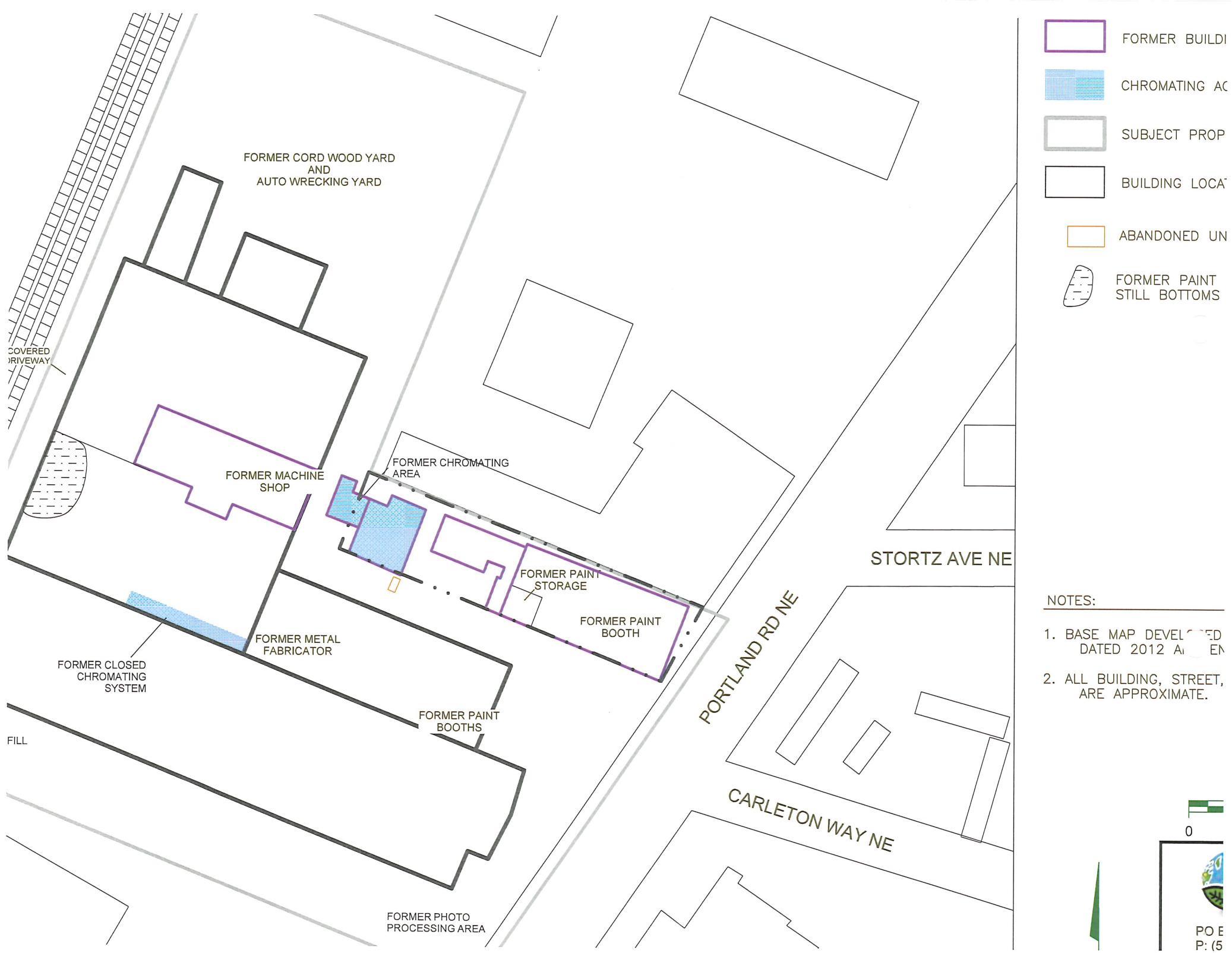
FIGURES

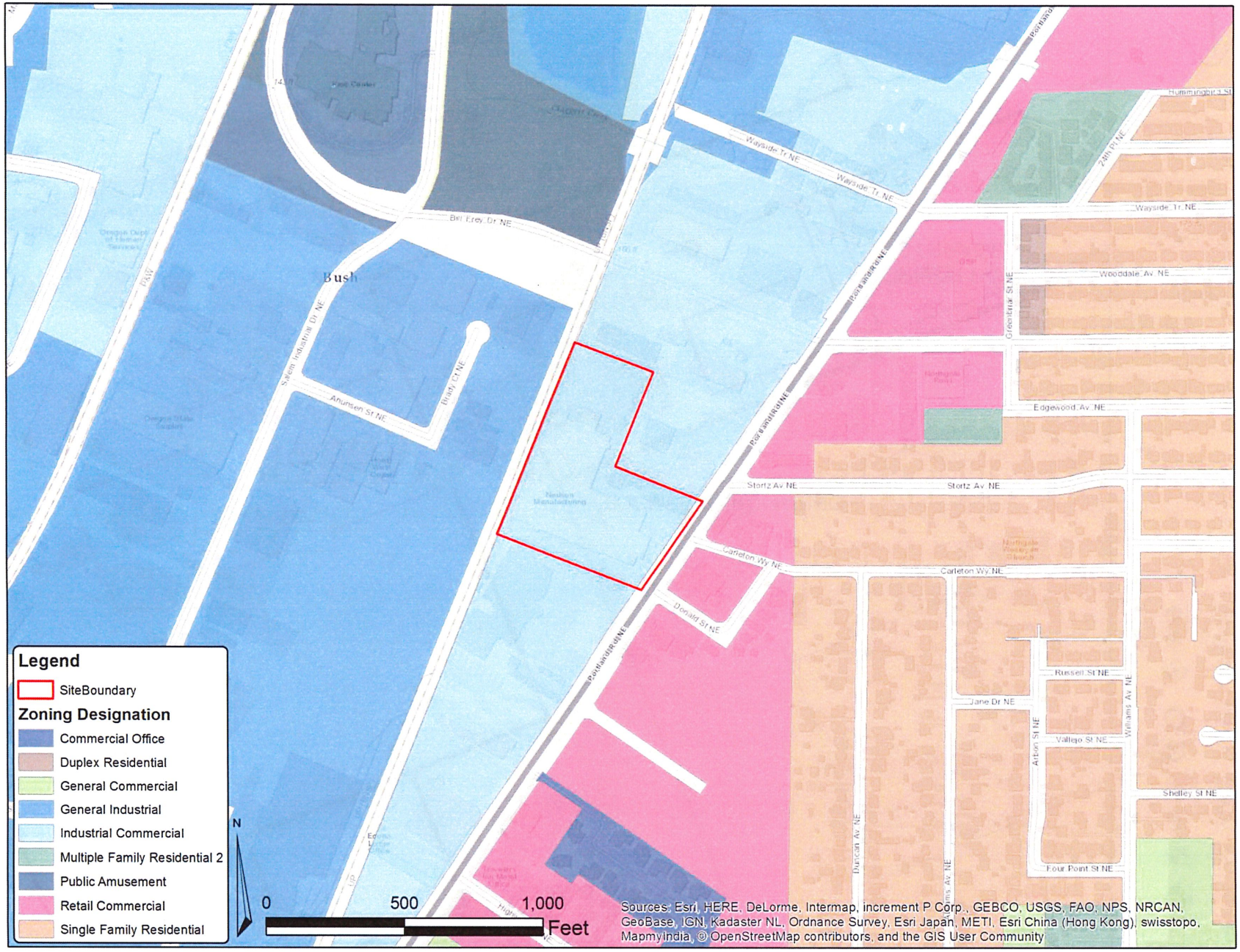


Quadrangle: SALEM WEST
Date: 1969 / Date Revised: 1986

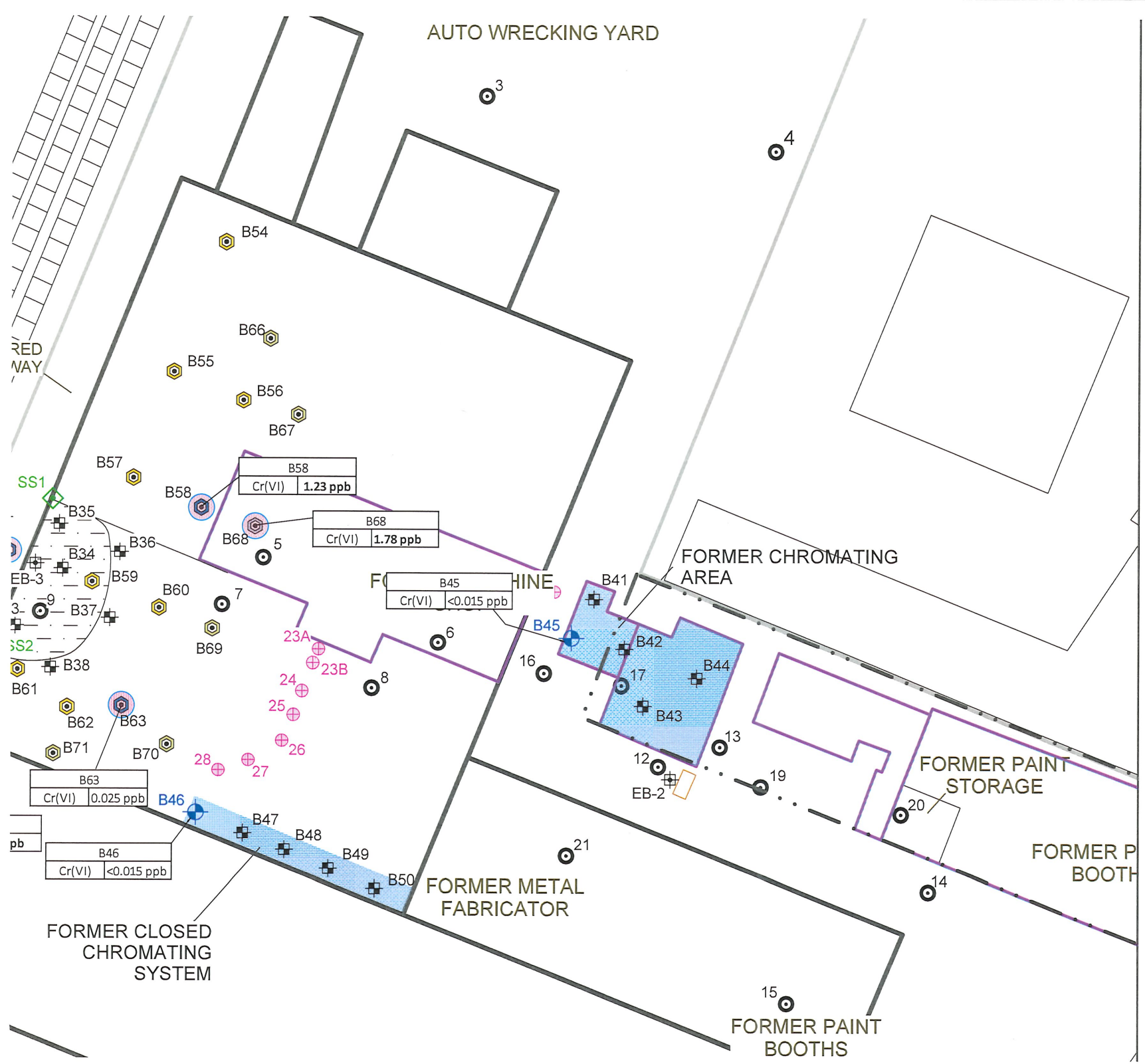
Location: Sec 012 T007S R003W OR Willamette
Contour Interval: 10 Feet

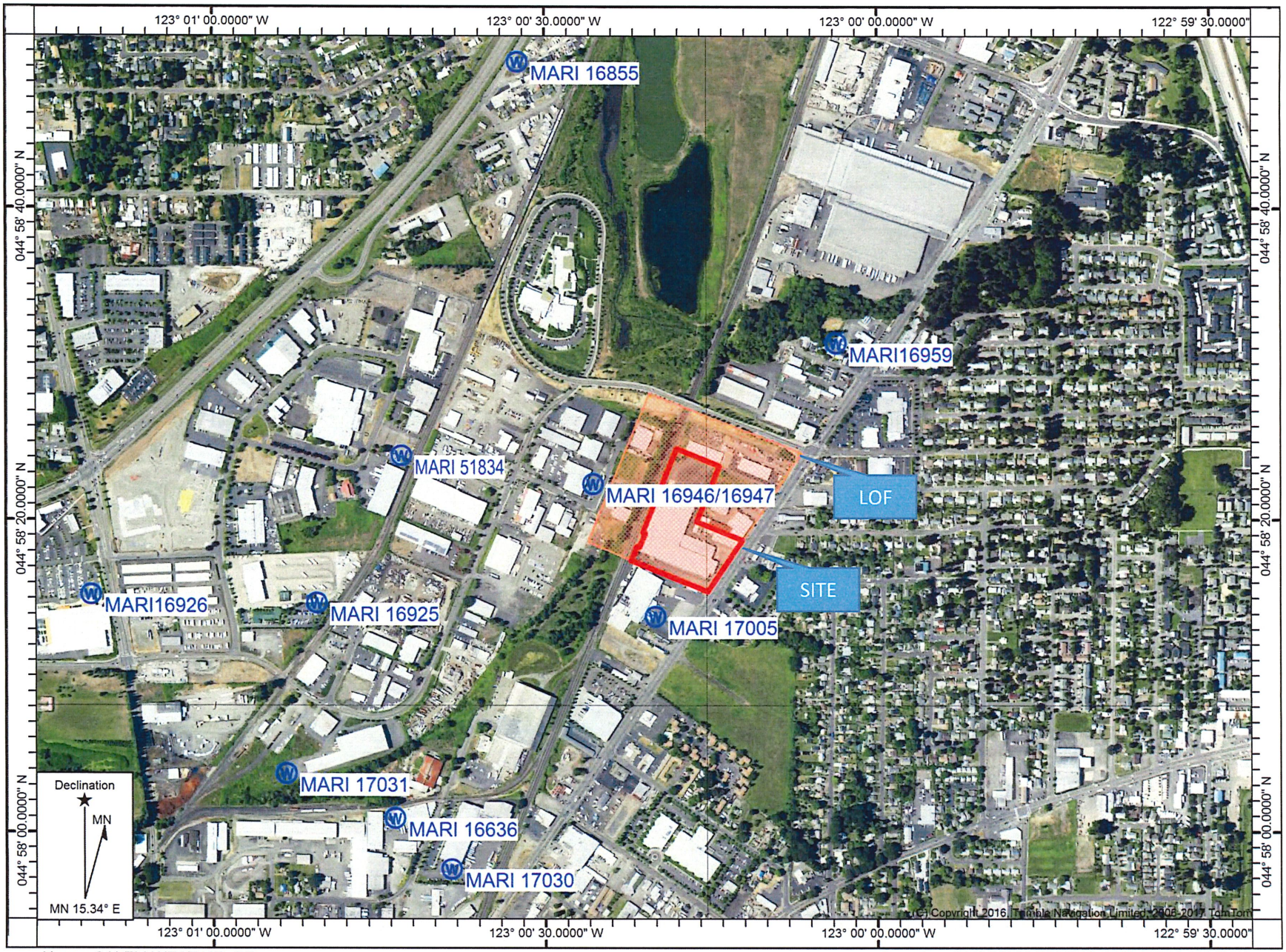
EVREN NORTHWEST	Date Drawn: 4/4/2017 CAD File Name: 689-14001fig1sv_map(v01) Drawn By: JOB Approved By: LDG	Former Neilsen Manufacturing Property 3501 Portland Road NE Salem, Oregon	**Site Vicinity Map**	Project No. 689-14001-02 Figure No. **1**


FORMER CORD WOOD YARD
AND
AUTO WRECKING YARD
COVERED
DRIVEWAY
FORMER MACHINE
SHOP
FORMER CHROMATING
AREA
FORMER PAINT
STORAGE
FORMER PAINT
BOOTH
FORMER METAL
FABRICATOR
FORMER CLOSED
CHROMATING
SYSTEM
FORMER PAINT
BOOTHS
FILL
FORMER PHOTO
PROCESSING AREA
STORTZ AVE NE
PORTLAND RD NE
CARLETON WAY NE
FORMER BUILDI
CHROMATING AC
SUBJECT PROP
BUILDING LOCA
ABANDONED UN
FORMER PAINT
STILL BOTTOMS
NOTES:
1. BASE MAP DEVEL ED
DATED 2012 A EN
2. ALL BUILDING, STREET,
ARE APPROXIMATE.
0
PO E
P: (5



EVREN NORTHWEST INC environmental natural resource consultants	Date Drawn: 7/5/2017 CAD File Name: 689-14001-08-fig3Zoning(v01) Drawn By: JOB Approved By: LDG	Former Neilsen Manufacturing Property 3501 Portland Road NE Salem, Oregon	**Zoning Map**	Project No. 689-14001-08 Figure No. **1**


AUTO WRECKING YARD
FORMER CHROMATING AREA
FORMER PAINT STORAGE
FORMER METAL FABRICATOR
FORMER CLOSED CHROMATING SYSTEM
FORMER PAINT BOOTHS
B58
Cr(VI) 1.23 ppb
B68
Cr(VI) 1.78 ppb
B45
Cr(VI) <0.015 ppb
B63
Cr(VI) 0.025 ppb
B46
Cr(VI) <0.015 ppb
CHROMATING ACTI
SUBJECT PROPER
FORMER PAINT B
STILL BOTTOMS D
ABANDONED UNDE
ENW GROUND WA
KTEC SOIL SAMPL
GEOTECHNICAL RE
SOIL SAMPLE LOC
KTEC SOIL SAMPL
KTEC SOIL SAMPL
KTEC SOIL A G
(JUNE 2014)
E&E SOIL SAMPLE
CTEC SOIL SAMPLE
CTEC SOIL AND GF
NOTES:
1. BASE MAP DEVELOPED
DATED 2012 AND EI
2. ALL BUILDING, STREET
ARE APPROXIMATE.
3. COPC = CONSTITUENT
0
PO E
P: (5

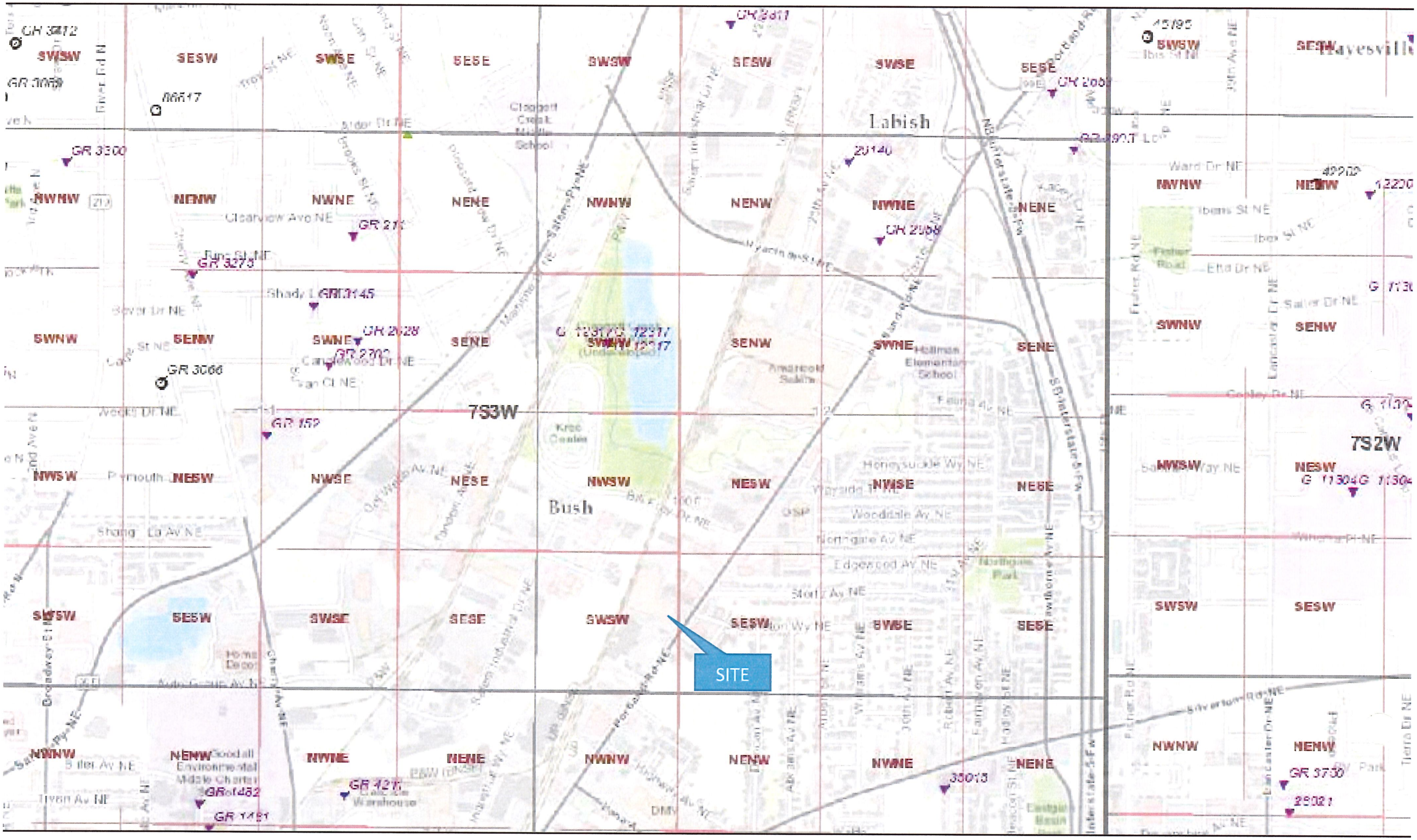


Name: SALEM WEST NE, OR
Date: Jun 30, 2014

0 1000 2000
Feet

Location: 044° 58' 22.7309" N, 123° 00' 21.1394" W

EVREN NORTHWEST environmental natural resource consultants	Date Drawn: 7/25/2017 CAD File Name: 689-14001-08-fig6LOF(GW)(v01) Drawn By: JOB Approved By: LDG	Former Neilsen Manufacturing Property 3501 Portland Road NE Salem, Oregon	**Locality of Facility (Ground Water)**	Project No. 689-14001-08 Figure No. **5**



by Type	Water Rights by Use				By Primary/Supplemental
Places of Use	Recreation	Instream	Livestock	Power	Primary
Storage Water	Fish	Misc.	Irrigation	Commercial	Supplemental
Surface Water	Wildlife	Agriculture	Mining	Domestic	
Groundwater					

rd/pages/MAPS/index.aspx#Disclaimer

ATTACHMENT A

WATER WELL LOGS

STATE ENGINEER
Salem, Oregon

MARI.....

Well Record

16925
MARI

STATE WELL NO. 7/3W-11Q(1)
COUNTY: Marion
APPLICATION NO. .....

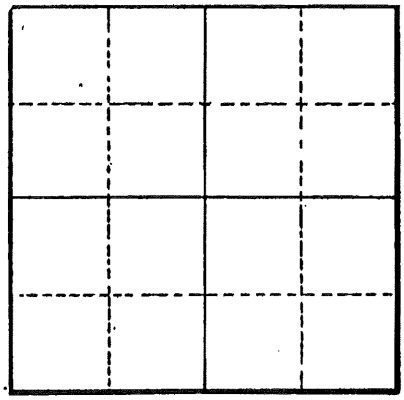
OWNER: Reconstruction Finance Corp.
(Columbia Metals Co.)

MAILING ADDRESS: .....

CITY AND STATE: .....

LOCATION OF WELL: Owner's No. .....

.....¼ .....¼ Sec. ..... T. ..... N. S., R. ..... E. W., W.M.



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

.....

.....

.....

Altitude at well 142

TYPE OF WELL: Drilled Date Constructed .....

Depth drilled 200 Depth cased 193

Section .....

CASING RECORD:
12 inch

FINISH:
Casing perforated 151 to 156

AQUIFERS:

WATER LEVEL:

PUMPING EQUIPMENT: Type Turbine H.P. 7½
Capacity ..... G.P.M.

WELL TESTS:
Drawdown ..... ft. after ..... hours ..... G.P.M.
Drawdown ..... ft. after ..... hours ..... G.P.M.

USE OF WATER Industrial Temp. ..... °F. ....., 19.....
SOURCE OF INFORMATION USGS
DRILLER or DIGGER .....
ADDITIONAL DATA:
Log ..... Water Level Measurements ..... Chemical Analysis ..... Aquifer Test .....

REMARKS:

State Printing 89316

STATE ENGINEER
Salem, Oregon

M 1 1...

Well Record

16926
MAR1

STATE WELL NO. 7/3W-11P(1)
COUNTY Marion
APPLICATION NO.

OWNER: Salem Sand & Gravel Co.

MAILING ADDRESS:

CITY AND STATE:

LOCATION OF WELL: Owner's No.

¼ ¼ Sec. T. N. S., R. E. W., W.M.

Bearing and distance from section or subdivision corner

Altitude at well 140

TYPE OF WELL: Drilled Date Constructed 1935

Depth drilled 220 Depth cased 228

Section

CASING RECORD:

12,8 inch

FINISH:

Casing perforated

AQUIFERS:

Gravel from 36 to 40, 50 to 51, 90 to 92, 135 to 137, 180 to 182, 220 to 228.

WATER LEVEL:

4 feet below land surface, 1935

PUMPING EQUIPMENT: Type Turbine H.P.

Capacity G.P.M.

WELL TESTS:

Drawdown ft. after hours G.P.M.

Drawdown ft. after hours G.P.M.

USE OF WATER Industrial Temp. °F. , 19

SOURCE OF INFORMATION USGS

DRILLER or DIGGER

ADDITIONAL DATA:

Log X Water Level Measurements Chemical Analysis Aquifer Test

REMARKS:

STATE ENGINEER
Salem, Oregon

State Well No. 7/3W-11P(1)
County Marion
Application No. .....

Well Log

Owner: Salem Sand & Gravel Co. Owner's No. .....

Driller: ..... Date Drilled .....

CHARACTER OF MATERIAL	(Feet below land surface) From	To	Thickness (feet)
Gravel, cemented	0	36	36
Gravel, water-bearing	36	40	4
Gravel (to 6-inch diameter), cemented	40	50	10
Gravel, water-bearing	50	51	1
Gravel (to 6-inch diameter), cemented	51	59	8
Clay, blue	59	66	7
Gravel and boulders, cemented	66	80	14
Sand, cemented	80	90	10
Gravel, water-bearing	90	92	2
Gravel (to 6-inch diameter), cemented	92	135	43
Gravel, water-bearing	135	137	2
Gravel, cemented; small boulders	137	175	38
Sand, cemented	175	180	5
Gravel, water-bearing	180	182	2
Gravel and boulders, cemented	182	220	38
Gravel, water-bearing	220	228	8
Casing: 12-inch to 228 feet; perforated opposite all water-bearing zones.			

MARI 57922

STATE OF OREGON
WATER SUPPLY WELL REPORT
(as required by ORS 537.765)
Instructions for completing this report are on the last page of this form.

WELL I.D. # L _____
START CARD # 138702

(1) LAND OWNER Well Number _____
Name CITY OF KEIZER
Address 930 CHEMAWA RD. N
City KEIZER State ORE Zip 97303

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

(3) DRILL METHOD:
☐ Rotary Air ☐ Rotary Mud ☐ Cable ☐ Auger
☐ Other N

(4) PROPOSED USE:
☐ Domestic ☑ Community ☐ Industrial ☐ Irrigation
☐ Thermal ☐ Injection ☐ Livestock ☐ Other A

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

HOLE Diameter	From	To	SEAL Material	From	To	Sacks or pounds
			N			

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

Drive Shoe used ☐ Inside ☐ Outside ☐ None
Final location of shoe(s) ____

(7) PERFORATIONS/SCREENS: Mills Knife
☑ Perforations Method ____
☐ Screens Type ____ Material ____

From	To	Slot size	Number	Diameter	Tele/pipe size	Casing	Liner
-1'	68'	2½" x ⅜"	402			☑	☐
						☐	☐
						☐	☐
						☐	☐

(8) WELL TESTS: Minimum testing time is 1 hour
☐ Pump ☐ Bailer ☐ Air ☐ Flowing Artesian

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

Temperature of water ____ Depth Artesian Flow Found ____
Was a water analysis done? A ☐ Yes By whom ____
Did any strata contain water not suitable for intended use? ☐ Too little
☐ Salty ☐ Muddy ☐ Odor ☐ Colored ☐ Other ____
Depth of strata: ____

RECEIVED
MAR 02 2004
WATER RESOURCES DEPT
SALEM, OREGON

(9) LOCATION OF WELL by legal description:
County MARION Latitude ____ Longitude ____
Township 7S N or S Range 3W E or W. WM.
Section 11 NW 1/4 SE 1/4
Tax Lot 4000 Lot ____ Block ____ Subdivision ____
Street Address of Well (or nearest address) East side of property @ 803 WEEKS AVE, AM Apt. Complex

(10) STATIC WATER LEVEL:
19 ft. below land surface. Date 02-27-04
Artesian pressure ____ lb. per square inch Date ____

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

From	To	Estimated Flow Rate	SWL
	N		
	A		

(12) WELL LOG:
Ground Elevation ____

Material	From	To	SWL
After 12" perforated from -1' to 68', tremie pipe installed to 66'; 7sk-sand mix pumped through tremie to within 1' of surface, -1' to grd level filled w/ soil; 5 yards of grout mix used to fill 12".			

Date started 02-26-04 Completed 02-27-04

(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 633
Signed Michael Waldrop Date 02-27-04

ORIGINAL – WATER RESOURCES DEPARTMENT FIRST COPY – CONSTRUCTOR SECOND COPY – CUSTOMER

STATE OF OREGON

WATER WELL REPORT

(as required by ORS 537.765)

169 MAR 16

AUG 17 1984

WATER RESOURCES DEPT

SALEM, OREGON

PLEASE TYPE or PRINT IN INK

MI? 5946

7S/3W-12

Record

(for official use only)

(1) OWNER:

Name Brookman Cast Industries

Address 3530 Brady Ct. NE

City Salem State Ore.

(2) TYPE OF WORK (check):

New Well ☐ Deepening ☐ Reconditioning ☑ Abandon ☐

If abandonment, describe material and procedure in Item 12.

(3) TYPE OF WELL:

Rotary Air ☐ Driven ☐

Rotary Mud ☐ Dug ☐

Cable ☑ Bored ☐

(4) PROPOSED USE (check):

Domestic ☐ Industrial ☑ Municipal ☐

Irrigation ☐ Thermal: Withdrawal ☐ Reinjection ☐

Other: Piezometric ☐ Grounding ☐ Test ☐

(5) CASING INSTALLED:

Steel ☐ Plastic ☐ Threaded ☐ Welded ☐

" Diam. from ft. to ft. Gauge

" Diam. from ft. to ft. Gauge

LINER INSTALLED:

Steel ☐ Plastic ☐ Threaded ☐ Welded ☐

" Diam. from ft. to ft. Gauge

(6) PERFORATIONS:

Perforated? ☑ Yes ☐ No

Size of perforations 1/4 in. by 1½ in.

160 perforations from 80 ft. to 955 ft.

60 perforations from 100 ft. to 105 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? Driller

d: 150 gal./min. with 15 ft. drawdown after 1 hrs.

" " "

Air test gal./min. with drill stem at ft. hrs.

Bailer test gal./min. with ft. drawdown after hrs.

Artesian flow g.p.m.

perature of water Depth artesian flow encountered ft.

(9) CONSTRUCTION:

Special standards: Yes ☐ No ☐

Well seal—Material used

Well sealed from land surface to ft.

Diameter of well bore to bottom of seal in.

Diameter of well bore below seal in.

Amount of sealing material sacks ☐ pounds ☐

How was cement grout placed?

Was pump installed? Type HP Depth ft.

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 by legal description:

County Marion ¼ ¼ of Section 12 of

Township 7S (Township is North or South), Range 3W (Range is East or West), WM.

Tax Lot Lot Block Subdivision

MAILING ADDRESS OF WELL (or nearest address) same as owner

(11) WATER LEVEL of COMPLETED WELL:

Depth at which water was first found ft.

Static level 3 ft. below land surface. Date 6-17-84

Artesian pressure lbs. per square inch. Date

(12) WELL LOG:

Diameter of well below casing

Depth drilled ft. Depth of completed well 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
This existing well was perforated to improve it's efficiency.			

Date work started June 16, 1984 /completed June 17, 1984

Date well drilling machine moved off of well June 18 19 84

(unbonded) Water Well Constructor Certification (if applicable):

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

[Signed] Date , 19

(bonded) Water Well Constructor Certification:

Bond 84-92-460 (number) Issued by: Maryland Fidelity + Deposit (Surety Company Name)

On behalf of MIKE WALDROOP WELL DRILLING (type or print name of Water Well Constructor)

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

(Signed) Michael Waldroop (Water Well Constructor)

(Dated) July 31, 1984

NOTICE TO WATER WELL CONSTRUCTOR

The original 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.

SP*46866-690

NOTICE TO WATER WELL CONTRACTOR
The original 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.

16947 MARI

WATER WELL REPORT
STATE OF OREGON
(Please type or print)
(Do not write above this line)

16947
State Well No. 7S/3W-12
M171....
State Permit No. .....

(1) OWNER:
Name Brookman Cast Industries
Address P.O. Box 302
Salem, Oregon 97308

(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 ☐
☐ Bored ☐

(4) PROPOSED USE (check):
Domestic ☐ Industrial ☐ Municipal ☒
Irrigation ☐ Test Well ☐ Other ☐

) CASING INSTALLED:
Threaded ☐ Welded ☒
6 " Diam. from +1 ft. to 107 ft. Gage .250
" Diam. from ft. to ft. Gage
" Diam. from ft. to ft. Gage

) PERFORATIONS:
Perforated? ☐ Yes ☒ No
Type of perforator used
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?
gal./min. with ft. drawdown after hrs.
" " "
" Air Test Could Fluctuate "
~~Bailer~~ test 140 gal./min. with 105 ft. drawdown after 1 hrs.
sian flow g.p.m.
mperature of water Depth artesian flow encountered ft.

(9) CONSTRUCTION:
Well seal—Material used Cement
Well sealed from land surface to 20 ft.
Diameter of well bore to bottom of seal 10 in.
Diameter of well bore below seal 6 in.
Number of sacks of cement used in well seal 9 sacks
How was cement grout placed?
Air 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 Marion Driller's well number
¼ ¼ Section 12 T. 3W R. 7S W.M.
Bearing and distance from section or subdivision corner

(11) WATER LEVEL: Completed well.
Depth at which water was first found 21 ft.
Static level 2 ft. below land surface. Date 2-28-80
Artesian pressure lbs. per square inch. Date

(12) WELL LOG:
Diameter of well below casing 6"
Depth drilled 110 ft. Depth of completed well 107 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
Brown Clay	0	3	
gray Clay Sandy	3	10	
Dark gray Clay Sandy	10	20	
Small gravel	20	45	
Small and Medium gravel	45	52	
Medium gravel	52	68	
Brown Sand	68	72	
Medium gravel	72	107	2'

Work started 2-26 1980 Completed 2-28 1980
Date well drilling machine moved off of well 2-28 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] J.D. Mendera (Drilling Machine Operator) Date 3-5, 1980
Drilling Machine Operator's License No. 1195

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 Miller West Well Drilling (Person, firm or corporation) (Type or print)
Address 5875 Gaffin Rd. Salem
[Signed] Gary Mendera (Water Well Contractor)
Contractor's License No. 722 Date 3-5, 1980

* (USE ADDITIONAL SHEETS IF NECESSARY)

SP*45656-119

T. 7 C Acres

16959 MARI....

File Original and First Copy with the STATE ENGINEER, SALEM, OREGON

WATER WELL REPORT
STATE OF OREGON

State Well No. 7/3W-12

State Permit No.

(1) OWNER:
Name D. E. MATHIESON
Address 3845 PORTLAND RD SALEM

(2) LOCATION OF WELL:
County MARION Owner's number, if any—
¼ ¼ Section Lot 12 T. 7 R. 3W. W.M.
Bearing and distance from section or subdivision corner
3845 PORTLAND RD. SALEM ORE
BEGENNING AT THE S.E CORNER THEN 250 W. THEN 26' N WELL

(3) TYPE OF WORK (check):
New Well [X] Deepening ☐ Reconditioning ☐ Abandon ☐
If abandonment, describe material and procedure in Item 11.

(4) PROPOSED USE (check):
Domestic [X] Industrial ☐ Municipal ☐
Irrigation ☐ Test Well ☐ Other ☐

(5) TYPE OF WELL:
Rotary ☐ Driven ☐
Cable [X] Jetted ☐
Dug ☐ Bored ☐

(6) CASING INSTALLED: Threaded ☐ Welded [X]
6" Diam. from 1 ft. to 62' ft. Gage 1/4"
" Diam. from ft. to ft. Gage
" Diam. from ft. to ft. Gage

(7) PERFORATIONS: Perforated? ☐ Yes ☐ No
Type of perforator used NONE
SIZE of perforations in. by in.
perforations from ft. to ft.
perforations from ft. to ft.
perforations from ft. to ft.
perforations from ft. to ft.
perforations from ft. to ft.

(8) SCREENS: Well screen installed ☐ Yes [X] No
Manufacturer's Name
Type Model No.
Diam. Slot size Set from ft. to ft.
Diam. Slot size Set from ft. to ft.

(9) CONSTRUCTION:
Was well gravel packed? ☐ Yes [X] No Size of gravel:
Gravel placed from ft. to ft.
Was a surface seal provided? [X] Yes ☐ No To what depth? 10" ft.
Material used in seal— SANITARY
Did any strata contain unusable water? ☐ Yes [X] No
Type of water? Depth of strata
Method of sealing strata off CASED + BACK FILL

(10) WATER LEVELS:
Static level 34 ft. below land surface Date 9-17-58
Artesian pressure lbs. per square inch Date

Log Accepted by:
[Signed] D. E. Mathieson Date 9-17-, 1958
(Owner)

(11) 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 40 gal./min. with 6 ft. drawdown after 1 hrs.
Artesian flow g.p.m. Date
Temperature of water 56 Was a chemical analysis made? ☐ Yes [X] No

(12) WELL LOG: Diameter of well 6" I-D inches.
Depth drilled 62' ft. Depth of completed well 62' ft.

Formation: *Describe by color, character, size of material and structure, and show thickness of aquifers and the kind and nature of the material in each stratum penetrated, with at least one entry for each change of formation.*

MATERIAL	FROM	TO
TOPSOIL	2	2
CLAY SANDY YELLOW	32	34
CEMENTED GRAVEL	25	59
SAND MEDIUM GRAIN	2	61
WATER GRAVEL #2"	1	62

RECEIVED SEP 2? 1958 STATE ENGINEER SALEM, OREGON

Work started 9-16 1958 Completed 9-17 1958

(13) PUMP:
Manufacturer's Name FAIRBANKS + MORSE
Type: JET H.P. 1

Well Driller's Statement:
This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.

NAME J. A. SNEED + SONS
(Person, firm, or corporation) (Type or print)
Address 2505 BROOKS ST SALEM.

Driller's well number

[Signed] R. I. Sneed
(Well Driller)

License No. 6 Date 9-17-, 1958

(USE ADDITIONAL SHEETS IF NECESSARY)

RECEIVED APR 19 1961 STATE ENGINEER SALEM, OREGON

MAR 7005

WATER WELL REPORT
STATE OF OREGON

File Original and First Copy with the STATE ENGINEER, SALEM, OREGON

State Well No. 7/3W-13

State Permit No.

(1) OWNER:
Name DUTCH MAID FOOD PRODUCTS INC.
Address 3371 PORTLAND RD
SALEM, OREGON

(2) LOCATION OF WELL:
County MARION Owner's number, if any—
¼ ¼ Section 13 T. 7S R. 3W W.M.
Bearing and distance from section or subdivision corner

(3) TYPE OF WORK (check):
New Well ☒ Deepening ☐ Reconditioning ☐ Abandon ☐
If abandonment, describe material and procedure in Item 11.

(4) PROPOSED USE (check):
Domestic ☐ Industrial ☒ Municipal ☐
Irrigation ☐ Test Well ☐ Other ☐

(5) TYPE OF WELL:
Rotary ☐ Driven ☐
Cable ☒ Jetted ☐
Dug ☐ Bored ☐

(6) CASING INSTALLED:
Threaded ☐ Welded ☒
8" Diam. from top ft. to 144 ft. Gage
" Diam. from ft. to ft. Gage
" Diam. from ft. to ft. Gage

(7) PERFORATIONS:
Perforated? ☒ Yes ☐ No
Type of perforator used MILLS
SIZE of perforations ¼x2 in. by in.
96 perforations from 82 ft. to 94 ft.
perforations from ft. to ft.
perforations from ft. to ft.
perforations from ft. to ft.
perforations from ft. to ft.

(8) SCREENS:
Well screen installed ☐ Yes ☒ No
Manufacturer's Name
Type Model No.
Slot size Set from ft. to ft.
Slot size Set from ft. to ft.

(9) CONSTRUCTION:
Was well gravel packed? ☐ Yes ☒ No Size of gravel:
Gravel placed from ft. to ft.
Was a surface seal provided? ☒ Yes ☐ No To what depth? ft.
Material used in seal PUDDLE CLAY
Did any strata contain unusable water? ☐ Yes ☐ No
Type of water? Depth of strata
Method of sealing strata off

(10) WATER LEVELS:
Static level 30 ft. below land surface Date
Artesian pressure lbs. per square inch Date

Log Accepted by: Dutch Maid Food Products
[Signed] by S.M. Hansen (Owner) Date April 14, 1961

(11) WELL TESTS:
Drawdown is amount water level is lowered below static level
Was a pump test made? ☒ Yes ☐ No If yes, by whom? DRILLER
Yield: 100 gal./min. with 20 ft. drawdown after 6 hrs.
" 145 " 34 " 6 "
" 205 " 45 " 6 "
Bailed 250 gal./min. with 56 ft. drawdown after 6 hrs.
Artesian flow g.p.m. Date
Temperature of water 54 Was a chemical analysis made? ☐ Yes ☐ No

(12) WELL LOG:
Diameter of well 8 inches.
Depth drilled 144 ft. Depth of completed well 144 ft.
Formation: *Describe by color, character, size of material and structure, and show thickness of aquifers and the kind and nature of the material in each stratum penetrated, with at least one entry for each change of formation.*

MATERIAL	FROM	TO
TOP SOIL	0	3
YELLOW CLAY	3	15
YELLOW CLAY SANDY	15	22
SAND & GRAVEL	22	50
BLUE CLAY	50	67
HARD & LOOSE GRAVEL	67	144

Work started MARCH 25 19 61 Completed APRIL 11 19 61

(13) PUMP:
Manufacturer's Name
Type: H.P.

Well Driller's Statement:

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

NAME WILLAMETTE DRILLING CO (Person, firm, or corporation) (Type or print)
Address RT. 2 BOX 276 SALEM, OREGON
Driller's well number 633
[Signed] Herman H Beers (Well Driller)
License No. 293. Date APRIL 11, 1961

(USE ADDITIONAL SHEETS IF NECESSARY)

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

MW 1 51834

(START CARD) # 74339

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

(1) OWNER: Well Number 3163

Name Siltec Corporation

Address 1351 Tandem Avenue N.E.

City Salem, Oregon State 97303 Zip

(2) TYPE OF WORK

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

(3) DRILL METHOD:

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

[ ] Other

(4) PROPOSED USE:

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

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

(5) BORE HOLE CONSTRUCTION:

Special Construction approval [ ] Yes [X] No Depth of Completed Well 140 ft.

Explosives used [ ] Yes [X] No Type Amount

HOLE Diameter	From	To	SEAL Material	From	To	Sacks or pounds
12	0	19	Dry Bent.	0	19	825 pounds
8	0	140				

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

[ ] Other As per 690-210-340

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:	8"	+1	140	.250	[X]	[ ]	[X]	[ ]
					[ ]	[ ]	[ ]	[ ]
					[ ]	[ ]	[ ]	[ ]
					[ ]	[ ]	[ ]	[ ]
Liner:					[ ]	[ ]	[ ]	[ ]
					[ ]	[ ]	[ ]	[ ]

Final location of shoe(s) 140

(7) PERFORATIONS/SCREENS:

[X] Perforations Method Holte Perforaton

[ ] Screens Type (3/8"X 1¼) Material

From	To	Slot size	Number	Diameter	Tele/pipe size	Casing	=	Liner
~~115~~ XXX	~~140~~ XXX		~~1240~~ XXXX			[X]		[ ]
105	137		1240			[ ]		[ ]
						[ ]		[ ]
						[ ]		[ ]
						[ ]		[ ]

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

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

Yield gal/min	Drawdown	Drill stem at	Time
500+		140	1 hr.

Temperature of water 53°F Depth Artesian Flow Found

Was a water analysis done? [ ] Yes By whom

Did any strata contain water not suitable for intended use? [ ] Too little

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

Depth of strata:

(9) LOCATION OF WELL by legal description:

County Marion Latitude Longitude

Township 7S N or S Range 3W E or W. WM.

Section 12 SW 1/4 SW 1/4

Tax Lot 01700 Lot Block Subdivision

Street Address of Well (or nearest address)

1351 Tandem (Tax Lot 180976-141)

(10) STATIC WATER LEVEL:

12 ft. below land surface. Date 2/16/96

Artesian pressure lb. per square inch. Date

(11) WATER BEARING ZONES:

Depth at which water was first found 21

From	To	Estimated Flow Rate	SWL
21	140	1000+	12

(12) WELL LOG:

Ground Elevation

Material	From	To	SWL
Gravelly Topsoil	0	1	
Silty Brown Clay	1	14	
Very Cemented Brown Sand and Gravel	14	21	
Cemented Brown Sand and gravel, W.B.	21	50	
Very Cemented Brown Sand and Gravel	50	56	
Cemented Brown Sand and gravel	56	75	
Gray Clay	75	88	
Black Sand	88	92	
Black Sand and Gravel	92	101	
Brown Sand and Gravel	101	140	

RECEIVED
JUN - 3 1997
WATER RESOURCES DEPT.
SALEM, OREGON

RECEIVED
JUN 30 1997
WATER RESOURCES DEPT.
SALEM, OREGON

Date started 2/15/96 Completed 2/16/96

(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 753

Signed Mark D Beer Date 2/16/96

(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.

WILLAMETTE DRILLING CO. INC. WWC Number 753

Signed Mark D Beer Date 2/16/96

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

WATER SUPPLY WELL REPORT
(as required by ORS 537.765)

Salem, OR 97309

ST/ CARD # 171378

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

(1) LAND OWNER Well Number _____
Name City of Salem
Address 555 Liberty St., SE/Room 325
City Salem, State OR Zip 97301-3503

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

(3) DRILL METHOD
☑ Rotary Air ☐ Rotary Mud ☐ Cable ☐ Auger ☐ Cable Mud
☑ Other Pump Hoist Service Truck

(4) PROPOSED USE
☑ Domestic ☐ Community ☐ Industrial ☐ Irrigation
☐ Thermal ☐ Injection ☐ Livestock ☐ Other _____

(5) BORE HOLE CONSTRUCTION Special Construction: ☐ Yes ☑ No
Depth of Completed Well 0 ft.
Explosives used: ☐ Yes ☑ No Type _____ Amount _____

BORE HOLE Diameter	From	To	SEAL Material	From	To	Sacks or Pounds
6	0	80	Bentonite	7	16	3 sacks
			Cement	16	80	15 sks w/bent

How was seal placed: Method ☐ A ☐ B ☐ C ☐ D ☐ E
☑ Other pressure grouted from bottom up
Backfill placed from 7 ft. to 16 ft. Material Bentonite
Gravel placed from _____ ft. to _____ ft. Size of gravel _____

(6) CASING/LINER

	Diameter	From	To	Gauge	Steel	Plastic	Welded	Threaded
Casing:	6	-10	80	.250	☑	☐	☐	☑
					☐	☐	☐	☐
					☐	☐	☐	☐
					☐	☐	☐	☐
Liner:					☐	☐	☐	☐
					☐	☐	☐	☐

Drive Shoe used ☐ Inside ☐ Outside ☐ None
Final location of shoe(s) _____

(7) PERFORATIONS/SCREENS
☑ Perforations Method Holte Air Rotary
☐ Screens Type slots Material steel

From	To	Slot Size	Number	Diameter	Tele/pipe size	Casing	Liner
10	78	1/4	816	1 1/4		☑	☐
						☐	☐
						☐	☐
						☐	☐
						☐	☐

(8) WELL TESTS: Minimum testing time is 1 hour
☐ Pump ☐ Bailer ☑ Air ☐ Flowing Artesian

Yield gal/min	Drawdown	Drill stem at	Time
15	na	80	

Temperature of water 55 Depth Artesian Flow Found _____
Was a water analysis done? ☐ Yes By whom _____
Did any strata contain water not suitable for intended use? ☐ Too little
☐ Salty ☐ Muddy ☐ Odor ☐ Colored ☐ Other _____
Depth of strata: _____

(9) LOCATION OF WELL (legal description)
County Marion
Tax Lot 500 Lot _____
Township 7 S Range 3 W WM
Section 12CC SW 1/4 SW 1/4
Lat ___ ° ___ ' ___ " or _____ (degrees or decimal)
Long ___ ° ___ ' ___ " or _____ (degrees or decimal)
Street Address of Well (or nearest address) 3630-3635 Portland Rd, NE, Salem, OR

(10) STATIC WATER LEVEL
43 ft. below land surface. Date 01-27-05
_____ ft. below land surface. Date _____
Artesian pressure _____ lb. per square inch Date _____

(11) WATER BEARING ZONES
Depth at which water was first found 43

From	To	Estimated Flow Rate	SWL
43	80	15	43

(12) WELL LOG Ground Elevation _____

Material	From	To	SWL
The well had been hit by heavy equipment. The pump fell to the bottom and gravel, sand & clay had been dumped on the top of the pump. The well casing was also bent over. Excavated down 10 feet around the well. Cut off bent section of casing. Used wall hook to fish out pump. Added 11 feet of steel casing and pulled up pump to within 20 feet of land surface Pump was stuck and pump hoist could not pull out. Set up drill rig over the well.			
*****continued on page two*****			

RECEIVED
MAR 1 2005
WATER RESOURCES DEPT
SALEM, OREGON

Date Started 01-27-05 Completed 01-28-05

(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.

WWC Number 1394 Date 01-28-05
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.

WWC Number 1394 Date 01-28-05
Signed _____

06/16/2004

Mack Drilling Company, Inc.

Domestic ♦ Commercial ♦ Environmental ♦ Geotechnical Drilling & Well Services

(1) OWNER:
City of Salem

Well Number:
Start Card # 171378

Site
3630-3635 Portland Rd NE, Slm

Address:
555 Liberty St. SE/Room 325

City:
Salem, OR 97301-3503

Page two of two

(12) WELL LOG: Material	From	To	SWL
******continued from page one*******			
Air jetted out debris on top of the pump with airline. Removed 5 feet of debri. Pulled out pump. Cleaned the well to the bottom and completed the abandonment.			

RECEIVED
MAR 1 2005
WATER RESOURCES DEPT
SALEM, OREGON

1345 20TH STREET SE ♦ P.O. BOX 12067 ♦ SALEM, OREGON 97309-0067 ♦ (503) 371-4399 ♦ FAX (503) 375-0961

STATE ENGINEER
Salem, Oregon

Well Record

GR- 1498

STATE WELL NO. 7/3W-14H
COUNTY Marion
APPLICATION NO. GR- 1554

OWNER: Cascade Meats, Inc.

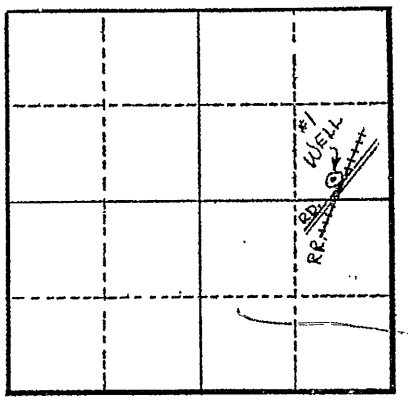
MAILING ADDRESS:

CITY AND STATE: Salem, Oregon

LOCATION OF WELL: Owner's No. #1

SE ¼ NE ¼ Sec. 14 T. 7 S., R. 3 W., W.M.

Bearing and distance from section or subdivision corner 790' W. & 2330' S. from NE cor. Sec. 14.



Altitude at well 150'

TYPE OF WELL: Drilled Date Constructed 1948

Depth drilled 181' Depth cased 161'

Section 14

CASING RECORD:
12"

FINISH:
Perforated with 8 rows from: 65' to 77' 134' to 138'
123' to 128' 141' to 151'

AQUIFERS:

WATER LEVEL:
29'

PUMPING EQUIPMENT: Type Peerless 6" H.P. 30
Capacity 250 G.P.M.

WELL TESTS:
Drawdown 39 ft. after hours 250 G.P.M.
Drawdown 89 ft. after hours 500 G.P.M.

USE OF WATER Industrial Temp. °F., 19
SOURCE OF INFORMATION GR Record
DRILLER or DIGGER
ADDITIONAL DATA:
Log X Water Level Measurements Chemical Analysis Aquifer Test

REMARKS:

State Printing 89316

STATE ENGINEER
Salem, Oregon

State Well No. 7/3W-14H
County Marion
Application No. GR. 1554

Well Log

Owner: Cascade Meats, Inc. Owner's No. #1

Driller: Date Drilled 1948

CHARACTER OF MATERIAL	(Feet below land surface) From	To	Thickness (feet)
Top soil & clay	0	18	18
Gravel with clay binder	18	32	14
Cemented gravel	32	39	7
Loose sand & gravel	39	43	4
Loose sand & gravel - water bearing	43	49	6
Cemented gravel	49	62	13
Loose sand & gravel - water bearing	62	77	15
Sand & gravel - yellow clay binder	77	121	54
Loose sand & gravel - water bearing	121	127	6
Gravel & sand - clay binder	127	134	7
Loose sand & gravel - water bearing	134	151	17
Sand & gravel - clay binder	151	181	30

NOTICE TO WATER WELL CONTRACTOR
The original 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.

WATER WELL REPORT
STATE OF OREGON
(Please type or print)
(Do not write above this line)

RECEIVED
DEC 14 1981
WATER RESOURCES DEPT.
SALEM, OREGON

State Well No. 7S/3W-14ad
State Permit No.

(1) OWNER:
Name Northwest Natural Gas Co.
Address 123 NW. Flanders St. Portland, Oregon 97209

(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 ☒

CASING INSTALLED:
Threaded ☐ Welded ☐
10 " Diam. from -6" ft. to 20'6" ft. Gage .250
" Diam. from ft. to ft. Gage
" Diam. from ft. to ft. Gage

PERFORATIONS:
Perforated? ☐ Yes ☐ No.
Type of perforator used
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 gal./min. with ft. drawdown after hrs.
Artesian flow g.p.m.
Temperature of water Depth artesian flow encountered ft.

(9) CONSTRUCTION:
Well seal—Material used Cement
Well sealed from land surface to 20 ft.
Diameter of well bore to bottom of seal 10 in.
Diameter of well bore below seal 8 3/4 in.
Number of sacks of cement used in well seal sacks
How was cement grout placed? Pumped
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 Marion Driller's well number
SE ¼ NE ¼ Section 14 T. 7S R. 3W W.M.
Bearing and distance from section or subdivision corner
Portland Rd. & Beech St Salem Oregon

(11) WATER LEVEL: Completed well.
Depth at which water was first found ft.
Static level ft. below land surface. Date
Artesian pressure lbs. per square inch. Date

(12) WELL LOG:
Diameter of well below casing 8 3/4
Depth drilled 250 ft. Depth of completed well hot well 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
Brown top soil	0	2	
Brown clay	2	8	
Mucky sand & clay	8	22	
Sand, gravel cobbles & water	22	35	
Sandy clay	35	40	
Sand gravel boulders & water	40	87	
Coarse sand black	87	95	
Gravel coarse sand	95	120	
Cemented sand & gravel cobbles	120	150	
Sand gravel boulders	150	235	
Gravel some clay	235	245	
Red clay	245	250	

Work started 11-30 19 81 Completed Dec. 3 19 81
Date well drilling machine moved off of well Dec. 3 19 81

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] Ron Aspaas (Drilling Machine Operator) Date Dec. 7, 19 81
Drilling Machine Operator's License No.

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 Hansen Drilling Co. Inc. (Person, firm or corporation) (Type or print)
Address 6711 NE. 58th Ave. Vancouver, Washington 9866
[Signed] Marvin Sample (Water Well Contractor)
Contractor's License No. 604 Date December 7, 19 81

(USE ADDITIONAL SHEETS IF NECESSARY)

SP*45656-119

STATE ENGINEER
Salem, Oregon

Well Record

M 17031

STATE WELL NO. 7/3W-14B
COUNTY Marion
APPLICATION NO. GR-4211

OWNER: Salem Nut Growers, Inc.
Glenn W. Hansberry, Sec-Mang.

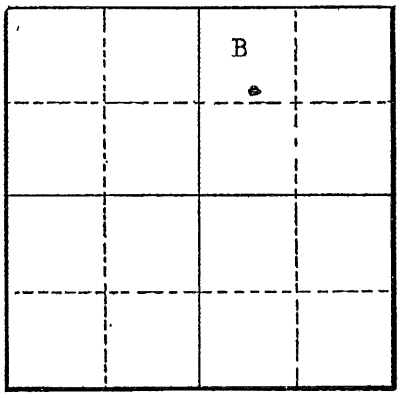
MAILING ADDRESS: 2828 Cherry Avenue

CITY AND STATE: Salem, Oregon

LOCATION OF WELL: Owner's No. .....

NW ¼ NE ¼ Sec. 14 T. 7 N. S., R. 3 E. W., W.M.

Bearing and distance from section or subdivision corner 1120 feet South and 700 feet East from the NW Corner of the NE¼



Section 14

Altitude at well 70 feet

TYPE OF WELL: Drilled Date Constructed 1947

Depth drilled 92 feet Depth cased 92 feet

CASING RECORD:

12-inch casing set from ground to 92 feet
(steel)

FINISH:

AQUIFERS:

WATER LEVEL:
30 feet

PUMPING EQUIPMENT: Type Pearlass H.P. .....
Capacity 200 G.P.M.

WELL TESTS:
Drawdown 10 ft. after ..... hours 350 G.P.M.
Drawdown ..... ft. after ..... hours ..... G.P.M.

USE OF WATER Industrial and Manufacturing Temp. ..... °F. ....., 19.....
SOURCE OF INFORMATION GR-4070
DRILLER or DIGGER Fred Wymore and Son
ADDITIONAL DATA:
Log (NA) Water Level Measurements ..... Chemical Analysis ..... Aquifer Test .....

REMARKS:

State Printing 89316

ATTACHMENT B

WATER RIGHTS DOCUMENTS

REGISTRATION NO. GR-182

CERTIFICATE NO. GR-169

Registration Statement

OF CLAIMANT OF RIGHT TO APPROPRIATE GROUND WATER

(Under Chapter 708, Oregon Laws 1955.)

TO THE STATE ENGINEER OF OREGON:

I, James A Carson,

of Salem County of Marion

State of Oregon, do hereby make application for a certificate of registration as evidence of a right to appropriate ground water.

1. **Source** from which water is withdrawn is Pump well
(Flowing well, pump well, infiltration trench, or tunnel)

2. **Location** is: 2680 Cherry Ave- Salem, Oregon
(Approximate distance and direction from nearest city or town)

and is more particularly described as follows:

(a) (8.85 chains South and 1.06 chains West) North East Quarter of the SouthWest Quarter Section
(Give distance and bearing to corner of section or other legal subdivision)

being within South West Quarter (Smallest legal subdivision) of Sec. 14, Twp. 7 S (N. or S.), Rge. 3 W (E. or W.)

or (b) within limits of recorded platted property, town or city: Salem

in Lot ..., Block ... of ... (Name of plat or addition)

Salem (If within city or town, give name) County of Marion

3. **Construction Work** was begun on December 1954 (Date); was completed on Jan. 10, 1955 (Date)

and the ground water claimed was first used for the purposes set out below on May 1955 (Date),

since which time the water has been used Intermittently (Continuously or intermittently)

from June 4, 1955 (Date) to Sept. 3, 1955 (Date)

4. **Quantity** of water claimed and used is 48 gallons per minute; 7-1/2 acre feet per year.

5. **Purpose or Purposes** for which water is used

~~Irrigation and Domestic~~ Irrigation
(Domestic, irrigation, municipal, manufacturing, industrial, etc.)

6. **Description of Well:** Depth 70 feet. Type Drilled (Dug or drilled)

diameter 6 inches. Elevation of ground at well site 150 (As near as known) feet, mean sea level.

Depth to water table 26 feet.

7. **Capacity of Well:** 200 g.p.m. with 46 feet drawdown. surface

... g.p.m. with ... feet drawdown.

Date of test Jan. 10, 1955

If Flowing Well: Measured discharge ... g.p.m. on ... (Date)

Shut-in pressure at ground surface ... lbs. per sq. in. on ... (Date)

Water is controlled by ... (Cap, valve, etc.)

8. **Casing:** (Give diameter, commercial specifications and depth below ground surface of each casing size.)

		Top		Bottom	
6 inch diameter	from	1 ft.	to	70	feet
inch diameter	from		to		feet
inch diameter	from		to		feet
inch diameter	from		to		feet

Describe and show depth of shoe, plug, adapter, liner or other details:

70 ft.

9. **Perforated Casings or Screens:**

Perforated- 6 holes every 16 inches (Number per foot and size of perforations, or describe screen)	from	41-1/2	to	64-1/2 ft.
	from		to	
	from		to	
	from		to	

10. **Log of Well:** (Describe each stratum or formation clearly, indicate if water bearing, and give thickness and depth as indicated.)

MATERIAL	Thickness (Feet)	Depth to Bottom (Feet)
0 to 12 ft. Top soil and silt		
12 to 70 ft. Sand and gravel		
Best water strata from 55 ft. to 65 ft.		

GR- 169 A

If log of well is not availa' give name and address of driller. .....

11. **Infiltration Trench:** Covered or open .....

Dimensions: Length ..... ft. Minimum depth ..... ft. Maximum depth ..... ft.

Bottom width ..... ft. Discharge ..... g.p.m. Date of test .....

12. **Tunnel:** Type of lining .....

Dimensions: ..... (Length, course, and cross sectional size)

Position of water bearing stratum with reference to portal of tunnel .....

Log of tunnel: (Preceding table for log of well may be used, if desired. Give footage from portal and character of materials, as pertinent.)

13. **Pumping Equipment:**

(a) Pump Berkeley Model 402H Size 2" outlet (Make, type and size) Capacity 48 g.p.m.

(b) Motor Single Phase 115 volt - 3 H.Power Make U.S. (Turbine pump) (Type and horsepower)

14. Location of area irrigated or to be irrigated, or place of use if for purposes other than irrigation.

Township North or South	Range E. or W. of Willamette Meridian	Section	Forty-acre Tract	Number Acres To Be Irrigated	Date of Reclamation
T7S	R3W	14	SW¼ of NE¼	3½ Ac.	1955

15. If the ground water supply is supplemental to an existing water supply, identification of any application for a permit, permit, certificate or adjudicated right to appropriate water made or held by the registrant.

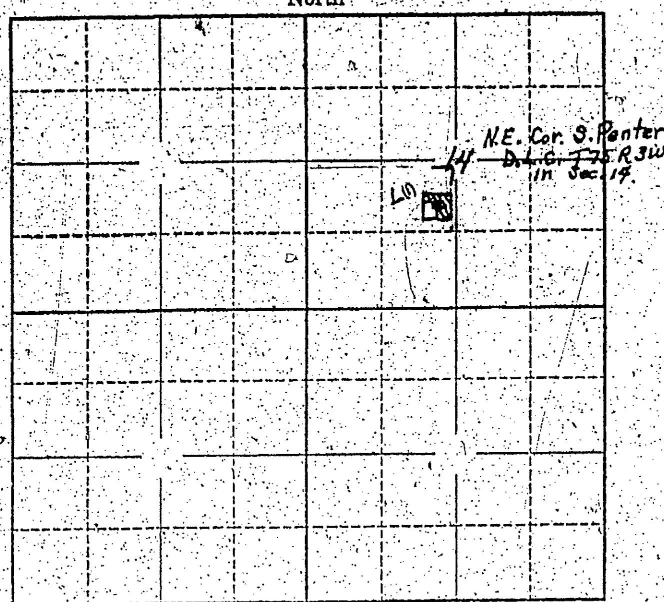
.....

.....

GR-169 B

Township 7S Range 3 W, W.M.

North



Locate well and acreage of irrigated land on plat.

Scale: 2" = 1 Mile

STATE OF OREGON }
County of Marion } ss.

I, James A. Garson, being first duly sworn, do hereby certify that I have read the foregoing Registration Statement and that all of the items therein contained are true to the best of my knowledge and belief.

James A. Garson
(Signature of Registrant)

Subscribed and sworn to before me this 10th day of May, 1956

My commission expires Sept 8, 1956 [signature]
(Notary Public)

(SEAL)

CERTIFICATE OF REGISTRATION

STATE OF OREGON }
County of Marion } ss.

This is to certify that the foregoing Registration Statement was received in the office of the State Engineer on the 10th day of May, 1956, at 1 o'clock P. M. and has been duly recorded in said office in Book No. 1 of Registration Statements on page GR-169 C

[illegible]

[illegible]

Witness my hand this 8th day of October, 1956.

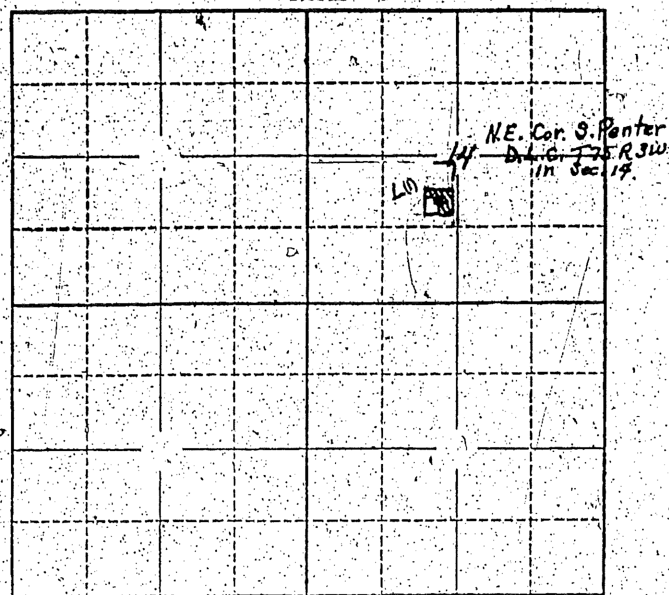
Lewis A. Stanley
(State Engineer)

By
(Deputy)

GR-169 C

Township *7 S* Range *3 W*, W.M.

North



Locate well and acreage of irrigated land on plat.

Scale: 2" = 1 Mile

STATE OF OREGON }
County of *Marion* } ss.

I, *James A. Garson*, being first duly sworn, do hereby certify that I have read the foregoing Registration Statement and that all of the items therein contained are true to the best of my knowledge and belief.

x *James A. Garson*
(Signature of Registrant)

Subscribed and sworn to before me this *10th* day of *May*, 19*56*

My commission expires *Sept. 8, 1956* *[signature]*
(Notary Public)

(SEAL)

CERTIFICATE OF REGISTRATION

STATE OF OREGON }
County of Marion } ss.

This is to certify that the foregoing Registration Statement was received in the office of the State Engineer on the 10th day of May, 1956, at 1 o'clock P. M. and has been duly recorded in said office in Book No. 1 of Registration Statements on page GR-169 C

~~Construction shall be completed by ...., 19...., and the water completely applied to beneficial use by ...., 19....~~

Witness my hand this 8th day of October, 1956.

Lewis A. Stanley
(State Engineer)

By ....
(Deputy)

GR-169 C

REGISTRATION NO. GR-211

Registration Statement CERTIFICATE NO. GR-196

OF CLAIMANT OF RIGHT TO APPROPRIATE GROUND WATER

(Under Chapter 708, Oregon Laws 1955.)

TO THE STATE ENGINEER OF OREGON:

I, Sylvia Brown Allen,

of Salem County of Marion

State of Oregon, do hereby make application for a certificate of registration as evidence of a right to appropriate ground water.

1. **Source** from which water is withdrawn is pump well (Flowing well, pump well, infiltration trench, or tunnel)

2. **Location is:** ..... (Approximate distance and direction from nearest city or town)

and is more particularly described as follows:

(a) 1100 feet South and 1800 feet West from NE corner Section 11. (Give distance and bearing to corner of section or other legal subdivision)

being within NW¼ of NE¼ (Smallest legal subdivision) of Sec. 11, Twp. 7S (N. or S.), Rge. 3W (E. or W.)

or (b) within limits of recorded platted property, town or city: .....

in Lot 9 Block 4 of Hicks - Jones Subdivision (Name of plat or addition)

..... (If within city or town, give name) County of Marion,

3. **Construction Work** was begun on Sept. 25, 1954 (Date), was completed on Oct. 11, 1954 (Date) and the ground water claimed was first used for the purposes set out below on May 21, 1955 (Date) since which time the water has been used intermittently (Continuously or intermittently) from May 21, 1955 (Date) to Sept. 1, 1955 (Date), since Sept. 15 have used it for house

4. **Quantity** of water claimed and used is 25 gallons per minute; ..... acre feet per year.

5. **Purpose or Purposes** for which water is used Irrigation & Domestic (Domestic, irrigation, municipal, manufacturing, industrial, etc.)

6. **Description of Well:** Depth 45 feet. Type drilled (Dug or drilled) diameter 6 inches. Elevation of ground at well site ..... (As near as known) feet, mean sea level. Depth to water table 19 feet.

7. **Capacity of Well:** ..... g.p.m. with ..... feet drawdown.

..... g.p.m. with ..... feet drawdown.

Date of test .....

If Flowing Well: Measured discharge ..... g.p.m. on ..... (Date)

Shut-in pressure at ground surface ..... lbs. per sq. in. on ..... (Date)

Water is controlled by ..... (Cap, valve, etc.)

8. **Casing:** (Give diameter, commercial specifications and depth below ground surface of each casing size.)

6 inch diameter Steel Casing from 0 to 45 feet

_____ inch diameter _____ from _____ to _____ feet

_____ inch diameter _____ from _____ to _____ feet

_____ inch diameter _____ from _____ to _____ feet

Describe and show depth of shoe, plug, adapter, liner or other details: _____

9. **Perforated Casings or Screens:**

Unknown from _____ to _____
(Number per foot and size of perforations, or describe screen)

_____ from _____ to _____

_____ from _____ to _____

_____ from _____ to _____

10. **Log of Well:** (Describe each stratum or formation clearly, indicate if water bearing, and give thickness and depth as indicated.)

MATERIAL	Thickness (Feet)	Depth to Bottom (Feet)
Not available		

GR-196 A

If log of well is not available, give name and address of driller. Art Clinton
Independence, Oregon

11. **Infiltration Trench:** Covered or open .....

Dimensions: Length ..... ft. Minimum depth ..... ft. Maximum depth ..... ft.

Bottom width ..... ft. Discharge ..... g.p.m. Date of test .....

12. **Tunnel:** Type of lining .....

Dimensions: ..... (Length, course, and cross sectional size)

Position of water bearing stratum with reference to portal of tunnel .....

Log of tunnel: (Preceding table for log of well may be used, if desired. Give footage from portal and character of materials, as pertinent.)

13. **Pumping Equipment:**

(a) Pump Homart Jet - Deep Well (Make, type and size) Capacity 1400 23 gpm g.p.m.

(b) Motor 1 H.P. motor No. 390-85 (Type and horsepower)

14. Location of area irrigated or to be irrigated, or place of use if for purposes other than irrigation.

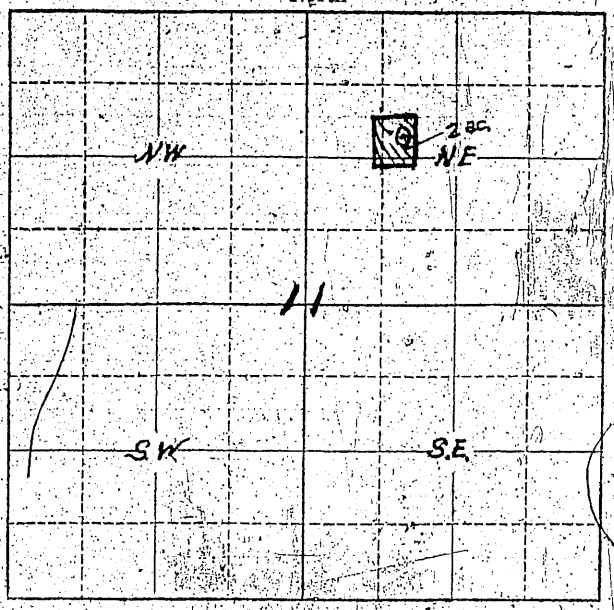
Township North or South	Range E. or W. of Willamette Meridian	Section	Forty-acre Tract	Number Acres To Be Irrigated	Date of Reclamation
T7S	R3W	11	NW¼ of NE¼	2 ac.	May 21, 1955

15. If the ground water supply is supplemental to an existing water supply, identification of any application for a permit, permit, certificate or adjudicated right to appropriate water made or held by the registrant.

GR-196 B

Sec 11 Township 7 S. Range 3 W.M.

North



Locate well and acreage of irrigated land on plat.

Scale: 2" = 1 Mile

STATE OF OREGON }
County of ..... } ss.

I, Sylvia Brown Allen, being first duly sworn, do hereby certify that I have read the foregoing Registration Statement and that all of the items therein contained are true to the best of my knowledge and belief.

Sylvia Brown Allen
(Signature of Registrant)

Subscribed and sworn to before me this 19th day of July, 19 56

My commission expires Sept 8, 1956

(Notary Public)

(SEAL)

CERTIFICATE OF REGISTRATION

STATE OF OREGON }
County of Marion } ss.

This is to certify that the foregoing Registration Statement was received in the office of the State Engineer on the 19th day of July, 19 56, at 8 o'clock A. M. and has been duly recorded in said office in Book No. 1 of Registration Statements on page GR-196 C.

~~Construction shall be completed by x-x-x-x-x-x-x-x-x-x-x and the water completely applied to beneficial use by x-x-x-x-x-x-x-x-x-x-x.~~

Witness my hand this 23rd day of November, 1956

Lewis A. Stanley
(State Engineer)

By .....
(Deputy)

GR-196 C

RECEIVED
JUL 10 1958
STATE ENGINEER
SALEM, OREGON

Registration No. GR - 2028

Certificate No. GR - 1954

Registration Statement

OF CLAIMANT OF RIGHT TO APPROPRIATE GROUND WATER

TO THE STATE ENGINEER OF OREGON:

I, CHARLES H KRAMER,

of 1255 CANDLEWOOD DR SALEM (Mailing address) County of MARION

State of OREGON, do hereby make application for a certificate of registration as evidence of a right to appropriate ground water.

1. **Source** from which water is withdrawn is PUMP WELL (Flowing well, pump well, infiltration trench, or tunnel)

2. **Location is:** 1 MILE N.E. OF SALEM (Approximate distance and direction from nearest city or town);

and is more particularly described as follows:

(a) 2310 feet South & 1800 feet west from NE corner Section 11 (Give distance and bearing to corner of section or other legal subdivision)

being within SE¼ of NE¼ (Smallest legal subdivision) of Sec. 11, Twp. 7S (N. or S.), Rge. 3W (E. or W.)

or (b) within limits of recorded platted property, town or city:

in Lot 8, Block 3 of HICKS JONES SUBDIVISION (Name of plat or addition)

(If within city or town, give name) County of MARION

3. **Construction Work** was begun on FEB. 1952 (Date); was completed on FEB. 1952 (Date)

and the ground water claimed was first used for the purposes set out below on MAY 1952 (Date)

since which time the water has been used INTERMITTENTLY (Continuously or intermittently)

from 1ST MAY (Date) to 1ST OCT (Date)

4. **Quantity** of water claimed and used is 36 gallons per minute; acre feet per year.

5. **Purpose or Purposes** for which water is used IRRIGATION

(Domestic, irrigation, municipal, manufacturing, industrial, etc.)

6. **Description of Well:** Depth 26 feet. Type DRIVEN WELL (Dug or drilled)

diameter 2 inches. Elevation of ground at well site (As near as known) feet, mean sea level.

Depth to water table 12 feet.

7. **Capacity of Well:** g.p.m. with feet drawdown,

g.p.m. with feet drawdown.

Date of test

If Flowing Well: Measured discharge g.p.m. on (Date)

Shut-in pressure at ground surface lbs. per sq. in. on (Date)

Water is controlled by (Cap, valve, etc.)

4M—4-57

8. **Casing:** (Give diameter, commercial specifications and depth below ground surface of each casing size.)

2 inch diameter pipe from 0 to 26 feet

____ inch diameter ____ from ____ to ____ feet

____ inch diameter ____ from ____ to ____ feet

____ inch diameter ____ from ____ to ____ feet

Describe and show depth of shoe, plug, adapter, liner or other details: ____

9. **Perforated Casings or Screens:**

Shot off, (Number per foot and size of perforations, or describe screen) from ____ to ____

____ from ____ to ____

____ from ____ to ____

____ from ____ to ____

10. **Log of Well:** (Describe each stratum or formation clearly, indicate if water bearing, and give thickness and depth as indicated.)

MATERIAL	Thickness (Feet)	Depth to Bottom (Feet)
Unknown.		

GR 1954

If log of well is not available, give name and address of driller. SELF

11. **Infiltration Trench:** Covered or open .....

Dimensions: Length ..... ft. Minimum depth ..... ft. Maximum depth ..... ft.

Bottom width ..... ft. Discharge ..... g.p.m. Date of test .....

12. **Tunnel:** Type of lining .....

Dimensions: ..... (Length, course, and cross sectional size)

Position of water bearing stratum with reference to portal of tunnel .....

Log of tunnel: (Preceding table for log of well may be used, if desired. Give footage from portal and character of materials, as pertinent.)

13. **Pumping Equipment:** CENTRIFUGAL

(a) Pump JAEGER (Make, type and size) Capacity 3 G.P.M. g.p.m.

(b) Motor GENERAL ELECTRIC 1 HP (Type and horsepower)

14. Location of area irrigated or to be irrigated, or place of use if for purposes other than irrigation.

Township North or South	Range E. or W. of Willamette Meridian	Section	Forty-acre Tract	Number Acres To Be Irrigated	Date of Reclamation
T7S	R3W	11	SW¼ of NE¼	2½ Ac	1952

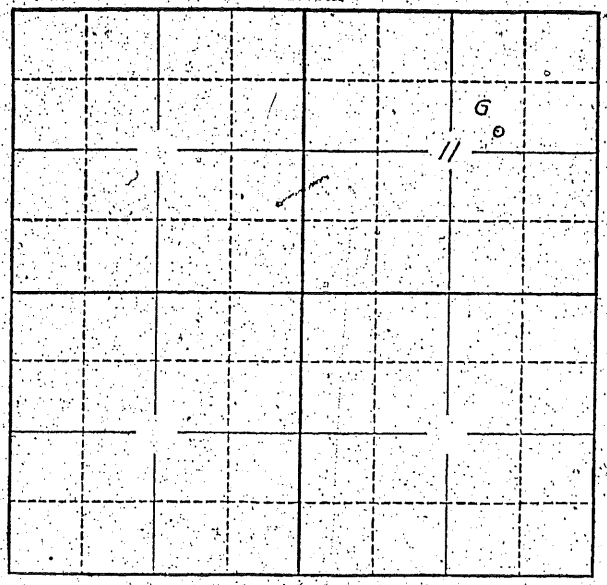
15. If the ground water supply is supplemental to an existing water supply, identification of any application for a permit, permit, certificate or adjudicated right to appropriate water made or held by the registrant.

.....

.....

Township 7S Range 3W W.M.

North



Locate well and acreage of irrigated land on plat.

Scale: 2" — 1 Mile

STATE OF OREGON
County of Marion } ss.

I, ... being first duly sworn, do hereby certify that I have read the foregoing Registration Statement and that all of the items therein contained are true to the best of my knowledge and belief.

Chas H. Kramer.
(Signature of Registrant)

Subscribed and sworn to before me this 9th day of July, 1958

My commission expires 12th June 1961 Wm. S. Bartholomew
(Notary Public)

(SEAL)

CERTIFICATE OF REGISTRATION

STATE OF OREGON
County of Marion } ss.

This is to certify that the foregoing Registration Statement was received in the office of the State Engineer on the 10th day of July, 1958, at 8:00 o'clock A M. and has been duly recorded in said office in Book No. 9 of Registration Statements on page GR 1954

Witness my hand this 9th day of February, 1959

Lewis A. Stanley
(State Engineer)

$15.00

By .....
(Deputy)

GR - 1954

Registration No. GR 2703

Certificate No. GR 2561

Registration Statement

OF CLAIMANT OF RIGHT TO APPROPRIATE GROUND WATER

TO THE STATE ENGINEER OF OREGON:

I, Lewis Welch and Linda Welch

of 1208 Candlewood Dr. Salem (Mailing address) County of Marion

State of Ore., do hereby make application for a certificate of registration as evidence of a right to appropriate ground water.

1. **Source** from which water is withdrawn is pump well (Flowing well, pump well, infiltration trench, or tunnel)

2. **Location** is: 1 mile from Salem City limits (Approximate distance and direction from nearest city or town);

and is more particularly described as follows: 450'E & 100'N from center Sec. 11

(a) Hicks James and D (Give distance and bearing to corner of section or other legal subdivision)

being within Lot 7 & SW¼NE¼ (Smallest legal subdivision) of Sec. 11, Twp. 7S (N. or S.), Rge. 3W (E. or W.)

or (b) within limits of recorded platted property, town or city:

in Lot ....., Block ..... of ..... (Name of plat or addition)

..... (If within city or town, give name) County of .....

3. **Construction Work** was begun on Before May 5/55 (Date); was completed on May 5/55 (Date)

and the ground water claimed was first used for the purposes set out below on June 1955 (Date),

since which time the water has been used Intermittently (Continuously or intermittently)

from May (Date) to October (Date)

4. **Quantity** of water claimed and used is 21 gallons per minute; ..... acre feet per year.

5. **Purpose or Purposes** for which water is used Irrigation

..... (Domestic, irrigation, municipal, manufacturing, industrial, etc.)

6. **Description of Well:** Depth 40 feet. Type Drilled (Dug or drilled)

diameter 6 inches. Elevation of ground at well site ..... (As near as known) feet, mean sea level.

Depth to water table 13 feet.

7. **Capacity of Well:** No test g.p.m. with ..... feet drawdown.

..... g.p.m. with ..... feet drawdown.

Date of test 11/7/56

If Flowing Well: Measured discharge ..... g.p.m. on ..... (Date)

Shut-in pressure at ground surface ..... lbs. per sq. in. on ..... (Date)

Water is controlled by ..... (Cap, valve, etc.)

8. **Casing:** (Give diameter, commercial specifications and depth below ground surface of each casing size.)

6 inch diameter Steel from 0 to 40? feet

____ inch diameter ____ from ____ to ____ feet

____ inch diameter ____ from ____ to ____ feet

____ inch diameter ____ from ____ to ____ feet

Describe and show depth of shoe, plug, adapter, liner or other details: ____

9. **Perforated Casings or Screens:**

Perforated near bottom from ____ to ____
(Number per foot and size of perforations, or describe screen)

____ from ____ to ____

____ from ____ to ____

____ from ____ to ____

10. **Log of Well:** (Describe each stratum or formation clearly, indicate if water bearing, and give thickness and depth as indicated.)

MATERIAL	Thickness (Feet)	Depth to Bottom (Feet)
Not available		

GR 2561

If log of well is not available, give name and address of driller. Harlen Miller

11. **Infiltration Trench:** Covered or open .....

Dimensions: Length ..... ft. Minimum depth ..... ft. Maximum depth ..... ft.

Bottom width ..... ft. Discharge ..... g.p.m. Date of test .....

12. **Tunnel:** Type of lining .....

Dimensions: ..... (Length, course, and cross sectional size)

Position of water bearing stratum with reference to portal of tunnel .....

Log of tunnel: (Preceding table for log of well may be used, if desired. Give footage from portal and character of materials, as pertinent.)

13. **Pumping Equipment:**

(a) Pump Sears Jet (Make, type and size) Capacity 21 g.p.m.

(b) Motor 1 HP (Type and horsepower)

14. Location of area irrigated or to be irrigated, or place of use if for purposes other than irrigation.

Township North or South	Range E. or W. of Willamette Meridian	Section	Forty-acre Tract	Number Acres To Be Irrigated	Date of Reclamation
7S	3W	11	NW¼ SE¼	2½	1955

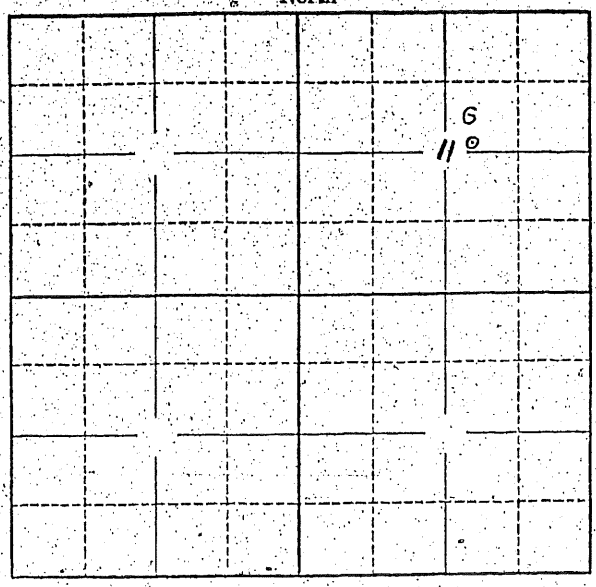
15. If the ground water supply is supplemental to an existing water supply, identification of any application for a permit, permit, certificate or adjudicated right to appropriate water made or held by the registrant.

None

GR 2561

Township 7S Range 3W, W.M.

North



Locate well and acreage of irrigated land on plat.

Scale: 2" = 1 Mile

STATE OF OREGON }
County of Marion } ss.

I, Lewis Welch, being first duly sworn, do hereby certify that I have read the foregoing Registration Statement and that all of the items therein contained are true to the best of my knowledge and belief.

Lewis Welch
(Signature of Registrant)

Subscribed and sworn to before me this 30th day of July, 1958.

My commission expires Sept. 8, 1960

(Notary Public)

(SEAL)

CERTIFICATE OF REGISTRATION

STATE OF OREGON }
County of Marion } ss.

This is to certify that the foregoing Registration Statement was received in the office of the State Engineer on the 25th day of July, 1958, at 10:00 o'clock A M. and has been duly recorded in said office in Book No. 11 of Registration Statements on page GR- 2561

Witness my hand this 6th day of April, 1959

Lewis A. Stanley
(State Engineer)

$15.00

By
(Deputy)

GR 2561

RECEIVED
APR 1 5 1960
STATE ENGINEER
SALEM, OREGON

REGISTRATION NO. GR-4211

Registration Statement

CERTIFICATE NO. GR-4070

OF CLAIMANT OF RIGHT TO APPROPRIATE GROUND WATER

(Under Chapter 708, Oregon Laws 1955.)

TO THE STATE ENGINEER OF OREGON:

I, Salem Nut Growers, Inc., by Glenn W. Hansberry, Secretary-Manager

of 2828 Cherry Avenue, Salem, County of Marion

State of Oregon, do hereby make application for a certificate of registration as evidence of a right to appropriate ground water.

1. **Source** from which water is withdrawn is Pump well
(Flowing well, pump well, infiltration trench, or tunnel)

2. **Location** is: Northeast Salem City Limits
(Approximate distance and direction from nearest city or town)

and is more particularly described as follows:

(a) 1120S 70E NW Corner of the NE¼ Southeast corner of property described in Deed records of Marion County, Ore.
(Give distance and bearing to corner of section or other legal subdivision)

being within NW¼ of NE¼ (Smallest legal subdivision) of Sec. 21, Twp. 7S (N. or S.), Rge. 3W (E. or W.)

or (b) within limits of recorded platted property, town or city: Salem, Oregon

in Lot ____, Block ____ of ____
(Name of plat or addition)

Suburban Salem (If within city or town, give name) County of Marion

3. **Construction Work** was begun on August 7, 1947 (Date); was completed on August 7, 1947 (Date)

and the ground water claimed was first used for the purposes set out below on August 30, 1947 (Date)

since which time the water has been used Continuous (Continuously or intermittently)

from August 30, 1947 (Date) to Present (Date)

4. **Quantity** of water claimed and used is 200 gallons per minute; ____ acre feet per year.

5. **Purpose or Purposes** for which water is used Industrial and Manufacturing
(Domestic, irrigation, municipal, manufacturing, industrial, etc.)

6. **Description of Well:** Depth 22 feet. Type Drilled
(Dug or drilled)

diameter 12 inches. Elevation of ground at well site 175 (As near as known) feet, mean sea level.

Depth to water table 20 feet.

7. **Capacity of Well:** 200 g.p.m. with 20 feet drawdown.

____ g.p.m. with ____ feet drawdown.

Date of test 4/20/60

If Flowing Well: Measured discharge ____ g.p.m. on ____ (Date)

Shut-in pressure at ground surface ____ lbs. per sq. in. on ____ (Date)

Water is controlled by ____
(Cap, valve, etc.)

Fred Wygant & Son drilled the well.

8. **Casing:** (Give diameter, commercial specifications and depth below ground surface of each casing size.)

12 inch diameter steel from ground to 72 feet

____ inch diameter ____ from ____ to ____ feet

____ inch diameter ____ from ____ to ____ feet

____ inch diameter ____ from ____ to ____ feet

Describe and show depth of shoe, plug, adapter, liner or other details: ____

9. **Perforated Casings or Screens:**

(Not known) from ____ to ____
(Number per foot and size of perforations, or describe screen)

____ from ____ to ____

____ from ____ to ____

____ from ____ to ____

10. **Log of Well:** (Describe each stratum or formation clearly, indicate if water bearing, and give thickness and depth as indicated.)

MATERIAL	Thickness (Feet)	Depth to Bottom (Feet)
(Contact Fred Wygant & Son who drilled well for this		

GR-4070

If log of well is not availal give name and address of driller. Fred Wymore on

11. **Infiltration Trench:** Covered or open ....

Dimensions: Length .... ft. Minimum depth .... ft. Maximum depth .... ft.

Bottom width .... ft. Discharge .... g.p.m. Date of ....

12. **Tunnel:** Type of lining ....

Dimensions: ....
(Length, course, and cross sectional size)

Position of water bearing stratum with reference to portal of tunnel ....

Log of tunnel: (Preceding table for log of well may be used, if desired. Give footage from portal and character of materials, as pertinent.)

13. **Pumping Equipment:**

(a) Pump Peerless (Make, type and size) Capacity 500 g.p.m.

(b) Motor GE Tri/clad Induction Mtr Model 12F1510 15HP 60 Cycle (Type and horsepower)

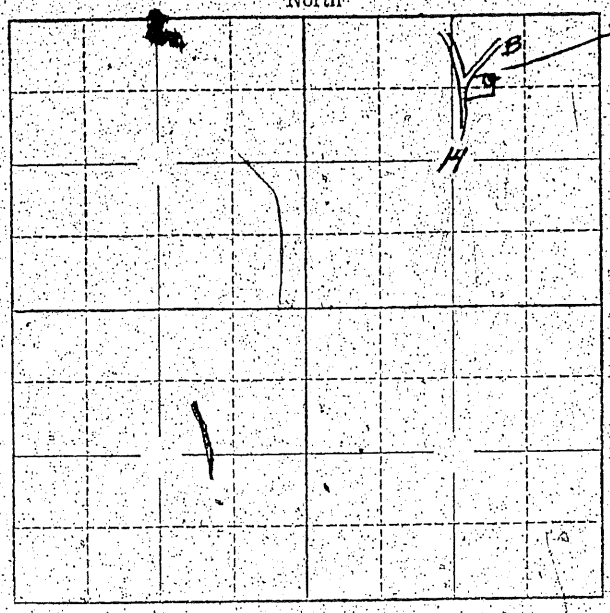
14. Location of area irrigated or to be irrigated, or place of use if for purposes other than irrigation.

Township North or South	Range E. or W. of Willamette Meridian	Section	Forty-acre Tract	Number Acres To Be Irrigated	Date of Reclamation
T7S	R3W	14	NW¼ of NE¼	Industrial	1947

15. If the ground water supply is supplemental to an existing water supply, identification of any application for a permit, permit, certificate or adjudicated right to appropriate water made or held by the registrant.

GR-4070

Township 7S Range 3W W.M.



Locate well and acreage of irrigated land on plat.

Scale: 2" = 1 Mile

STATE OF OREGON }
County of Marion } ss.

I, Glenn M. Mansbery, being first duly sworn, do hereby certify that I have read the foregoing Registration Statement and that all of the items therein contained are true to the best of my knowledge and belief.

(Signature of Registrant)

Subscribed and sworn to before me this 4 day of August 19 58

My commission expires NOTARY PUBLIC FOR OREGON My Commission Expires Dec. 14, 1961

(Notary Public)

(SEAL)

CERTIFICATE OF REGISTRATION

STATE OF OREGON }
County of Marion } ss.

This is to certify that the foregoing Registration Statement was received in the office of the State Engineer on the 4th day of August, 19 58, at 8:00 o'clock A M. and has been duly recorded in said office in Book No. 17 of Registration Statements on page 4070

~~Construction shall be completed by ..... and the water completely applied to beneficial use by ..... 19 ....~~

Witness my hand this 16th day of May, 19 60

Lewis A. Stanley
(State Engineer)

$20.00

By ..... (Deputy)

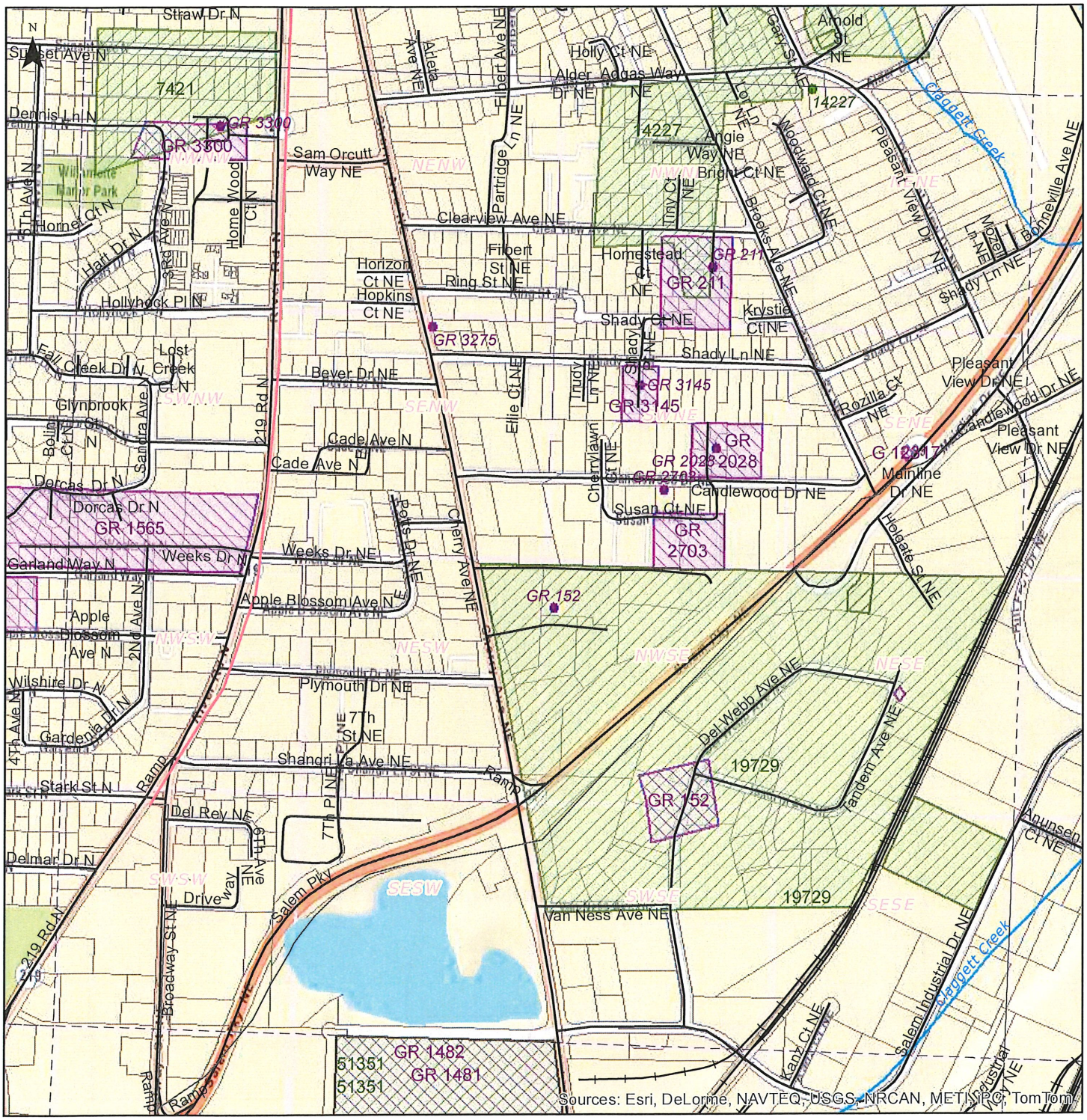
GR- 4070

Oregon Water Resources Department

Water Rights by Type

WM07.00S03.00W11

Map Date: February 3, 2017



Legend

0 1,000 Feet

Points of Diversion

- 75030
- 24883
- 24883

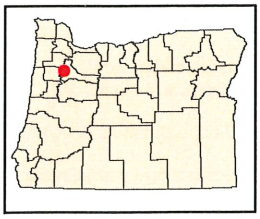
Places of Use

- 75030 Storage water
- 24883 Surface water
- 24883 Ground water

Water Rights - Outline to be determined. (Applies to all colors)

Water right labels indicate certificate number or permit letter(s) and number. Municiple uses excluded.

Index Map



For more information:
http://www.wrd.state.or.us and
http://apps.wrd.state.or.us/apps/wr/wrinfo/

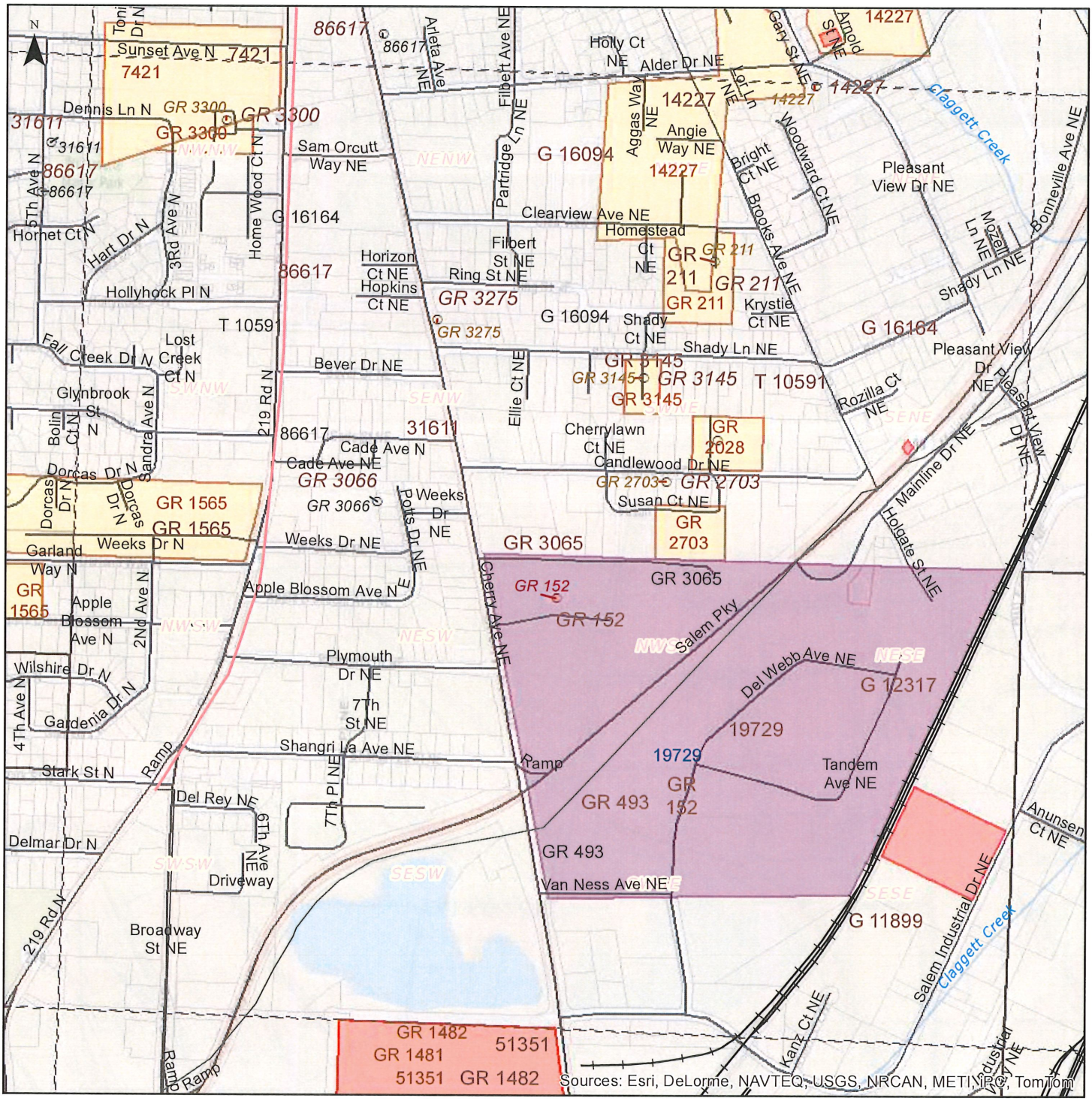
This map is for informal purposes only. It is not intended for legal, engineering or surveying purposes. Municipal rights are not included on this map.

Oregon Water Resources Department

Water Rights by Use

WM07.00S03.00W11

Map Date: February 3, 2017



0 1,000 Feet

Legend

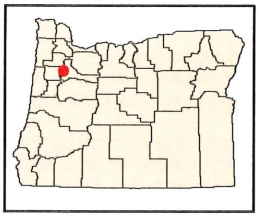
* POD - Points of Diversion
POU - Places of Use

For more information:
http://www.wrd.state.or.us
and
http://apps.wrd.state.or.us/apps/wr/wrinfo/

This map is for informal purposes only. It is not intended for legal, engineering or surveying purposes.

POD*	POU*		POD	POU		POD	POU	
○	☐	Municipal	○	☐	Irrigation	●	☐	Instream
●	☐	Domestic	●	▨	Livestock	●	▨	Wildlife
●	☐	Commercial	●	☐	Agriculture	●	▨	Fish
●	☐	Power	●	☐	Misc.	○	▨	Recreation
●	☐	Mining	◊	Water Rights - Outline to be determined. (Applies to all colors)				

Index Map



Oregon Water Resources Department
725 Summer Street NE
Salem, OR 97301
(503)986-0900

Report Date: 2/3/2017

Water Right Report for Section WM7.00S3.00W11

Legend

Type: (GW) = Ground Water; (ST) = Storage Water; (SW) = Surface Water

Use: (P) = Primary; (S) = Supplemental

Volume Acre Feet(af): (e) = estimated

Acreage: 12.25 Regular acreage ~~12.25~~ Acreage is on a canceled right (12.25) Acreage is part of a transfer and has not been proven up on yet (inchoate) [12.25] Acreage has been suspended * Acreage is not specified

Points of Diversions (POD)

r Right	Name	Type	Nbr	QQ	Priority Date	Source \ Stream	Use	Max Rate (cfs)	Rate (cfs)	Max Vol. (af)	Vol. (af)	Season Start	Sea En
14227 OR * IR	DAVID SAUCY	SW	2	NENE	5/1/1939	CLAGGET CR/RESERVOIR \ LABISH CREEK	IRRIGATION (P)	0.380	0.000			1/1	12
36617 RR CR *	CITY OF KEIZER	GW	7	NENW	7/13/1981	A WELL \ WILLAMETTE RIVER	MUNICIPAL USES (P)	1.330	1.330			1/1	12
ı:GR 152 * IM	HARVEY MACHINE CO. INC.	GW	1	NESW	6/30/1947	A WELL \ CLAGGETT CREEK	INDUSTRIAL/MANUFACTURING USES (P)	1.671	1.671			1/1	12
ı:GR 2028 * IR	CHARLES H KRAMER	GW	1	SENE	2/28/1952	A WELL \ CLAGGETT CREEK	IRRIGATION (P)	0.080	0.080			3/1	10
ı:GR 211 * IR	SYLVIA BROWN ALLEN	GW	1	NWNE	9/25/1954	A WELL \ CLAGGETT CREEK	IRRIGATION (P)	0.056	0.056			3/1	10
ı:GR 2703 * IR	LEWIS LULA WELCH	GW	1	SWNE	3/5/1955	A WELL \ CLAGGETT CREEK	IRRIGATION (P)	0.047	0.047			3/1	10
ı:GR 3066 * MU	KEIZER WATER DISTRICT	GW	1	NESW	12/31/1948	WELL 2 \ CLAGGETT CREEK	MUNICIPAL USES (P)	0.446	0.446			1/1	12

r Right	Name	Type	Nbr	QQ	Priority Date	Source \ Stream	Use	Max Rate (cfs)	Rate (cfs)	Max Vol. (af)	Vol. (af)	Season Start	Sea En
ı:GR 3145 * IR	J HENRY CORA PEDEN	GW	1	SWNE	12/31/1950	A WELL \ CLAGGETT CREEK	IRRIGATION (P)	0.045	0.045			3/1	1(
ı:GR 3275 * IR	VAUGHN L FOOTE	GW	1	SENW	12/31/1946	A WELL \ CLAGGETT CREEK	IRRIGATION (P)	0.058	0.058			3/1	1(
ı:GR 3300 * IR	G ROYAL BOLTMAN	GW	1	NWNW	12/31/1939	A WELL \ CLAGGETT CREEK	IRRIGATION (P)	0.056	0.056			3/1	1(

Places of Use (POU)

Water Right	Name	Type	QQ	Priority Date	Use	Acres by Use	DLC	Govt Lot
Cert:14227 OR * IR	DAVID SAUCY	SW	NWNE	5/1/1939	IRRIGATION (P)	17.200	68	
Cert:19729 OR * FP	CONTINENTAL CHEMICAL CO.	SW	NESW	6/15/1944	FIRE PROTECTION (P)	*		
Cert:19729 OR * FP	CONTINENTAL CHEMICAL CO.	SW	SESW	6/15/1944	FIRE PROTECTION (P)	*		
Cert:19729 OR * FP	CONTINENTAL CHEMICAL CO.	SW	NESE	6/15/1944	FIRE PROTECTION (P)	*		
Cert:19729 OR * FP	CONTINENTAL CHEMICAL CO.	SW	NWSE	6/15/1944	FIRE PROTECTION (P)	*		
Cert:19729 OR * FP	CONTINENTAL CHEMICAL CO.	SW	SWSE	6/15/1944	FIRE PROTECTION (P)	*		
Cert:19729 OR * FP	CONTINENTAL CHEMICAL CO.	SW	SESE	6/15/1944	FIRE PROTECTION (P)	*		
Cert:19729 OR * IM	CONTINENTAL CHEMICAL CO.	SW	NESW	6/15/1944	INDUSTRIAL/MANUFACTURING USES (P)	*		
Cert:19729 OR * IM	CONTINENTAL CHEMICAL CO.	SW	SESW	6/15/1944	INDUSTRIAL/MANUFACTURING USES (P)	*		
Cert:19729 OR * IM	CONTINENTAL CHEMICAL CO.	SW	NESE	6/15/1944	INDUSTRIAL/MANUFACTURING USES (P)	*		
Cert:19729 OR * IM	CONTINENTAL CHEMICAL CO.	SW	NWSE	6/15/1944	INDUSTRIAL/MANUFACTURING USES (P)	*		
Cert:19729 OR * IM	CONTINENTAL CHEMICAL CO.	SW	SWSE	6/15/1944	INDUSTRIAL/MANUFACTURING USES (P)	*		
Cert:19729 OR * IM	CONTINENTAL CHEMICAL CO.	SW	SESE	6/15/1944	INDUSTRIAL/MANUFACTURING USES (P)	*		
Cert:31611 OR * MU	KEIZER WATER DISTRICT	GW	NENE	1/30/1956	MUNICIPAL USES (P)	*		

Water Right	Name	Type	QQ	Priority Date	Use	Acres by Use	DLC	Govt Lot
Cert:31611 OR * MU	KEIZER WATER DISTRICT	GW	NWNE	1/30/1956	MUNICIPAL USES (P)	*		
Cert:31611 OR * MU	KEIZER WATER DISTRICT	GW	SWNE	1/30/1956	MUNICIPAL USES (P)	*		
Cert:31611 OR * MU	KEIZER WATER DISTRICT	GW	SENE	1/30/1956	MUNICIPAL USES (P)	*		
Cert:31611 OR * MU	KEIZER WATER DISTRICT	GW	NENW	1/30/1956	MUNICIPAL USES (P)	*		
Cert:31611 OR * MU	KEIZER WATER DISTRICT	GW	NWNW	1/30/1956	MUNICIPAL USES (P)	*		
Cert:31611 OR * MU	KEIZER WATER DISTRICT	GW	SWNW	1/30/1956	MUNICIPAL USES (P)	*		
Cert:31611 OR * MU	KEIZER WATER DISTRICT	GW	SENW	1/30/1956	MUNICIPAL USES (P)	*		
Cert:31611 OR * MU	KEIZER WATER DISTRICT	GW	NESW	1/30/1956	MUNICIPAL USES (P)	*		
Cert:31611 OR * MU	KEIZER WATER DISTRICT	GW	NWSW	1/30/1956	MUNICIPAL USES (P)	*		
Cert:7421 OR * IR	FRED A KURTZ	SW	NWNW	7/30/1927	IRRIGATION (P)	15.000		
Cert:86617 RR CR * MU	CITY OF KEIZER	GW	NENE	7/13/1981	MUNICIPAL USES (P)	*		
Cert:86617 RR CR * MU	CITY OF KEIZER	GW	NWNE	7/13/1981	MUNICIPAL USES (P)	*		
Cert:86617 RR CR * MU	CITY OF KEIZER	GW	SWNE	7/13/1981	MUNICIPAL USES (P)	*		
Cert:86617 RR CR * MU	CITY OF KEIZER	GW	SENE	7/13/1981	MUNICIPAL USES (P)	*		
Cert:86617 RR CR * MU	CITY OF KEIZER	GW	NENW	7/13/1981	MUNICIPAL USES (P)	*		
Cert:86617 RR CR * MU	CITY OF KEIZER	GW	NWNW	7/13/1981	MUNICIPAL USES (P)	*		
Cert:86617 RR CR * MU	CITY OF KEIZER	GW	SWNW	7/13/1981	MUNICIPAL USES (P)	*		
Cert:86617 RR CR * MU	CITY OF KEIZER	GW	SENW	7/13/1981	MUNICIPAL USES (P)	*		
Cert:86617 RR CR * MU	CITY OF KEIZER	GW	NESW	7/13/1981	MUNICIPAL USES (P)	*		
Cert:86617 RR CR * MU	CITY OF KEIZER	GW	NWSW	7/13/1981	MUNICIPAL USES (P)	*		
Cert:86617 RR CR * MU	CITY OF KEIZER	GW	NESE	7/13/1981	MUNICIPAL USES (P)	*		
Cert:86617 RR CR * MU	CITY OF KEIZER	GW	NWSE	7/13/1981	MUNICIPAL USES (P)	*		
Claim:GR 152 * IM	HARVEY MACHINE CO. INC.	GW	NESW	6/30/1947	INDUSTRIAL/MANUFACTURING USES (P)	*		
Claim:GR 1565 * IR	WAYNE L WEEKS; WEEKS BERRY NURSERY	GW	SWNW	4/30/1945	IRRIGATION (P)	4.000		
Claim:GR 1565 * IR	WAYNE L WEEKS; WEEKS BERRY NURSERY	GW	NWSW	4/30/1945	IRRIGATION (P)	1.000		

Water Right	Name	Type	QQ	Priority Date	Use	Acres by Use	DLC	Govt Lot
Claim:GR 2028 * IR	CHARLES H KRAMER	GW	SWNE	2/28/1952	IRRIGATION (P)	2.500		
Claim:GR 211 * IR	SYLVIA BROWN ALLEN	GW	NWNE	9/25/1954	IRRIGATION (P)	2.000		
Claim:GR 2703 * IR	LEWIS LULA WELCH	GW	NWSE	3/5/1955	IRRIGATION (P)	2.500		
Claim:GR 3065 * MU	CITY OF KEIZER	GW	NENE	12/31/1943	MUNICIPAL USES (P)	*		
Claim:GR 3065 * MU	CITY OF KEIZER	GW	NWNE	12/31/1943	MUNICIPAL USES (P)	*		
Claim:GR 3065 * MU	CITY OF KEIZER	GW	SWNE	12/31/1943	MUNICIPAL USES (P)	*		
Claim:GR 3065 * MU	CITY OF KEIZER	GW	SENE	12/31/1943	MUNICIPAL USES (P)	*		
Claim:GR 3065 * MU	CITY OF KEIZER	GW	NENW	12/31/1943	MUNICIPAL USES (P)	*		
Claim:GR 3065 * MU	CITY OF KEIZER	GW	NWNW	12/31/1943	MUNICIPAL USES (P)	*		
Claim:GR 3065 * MU	CITY OF KEIZER	GW	SWNW	12/31/1943	MUNICIPAL USES (P)	*		
Claim:GR 3065 * MU	CITY OF KEIZER	GW	SENW	12/31/1943	MUNICIPAL USES (P)	*		
Claim:GR 3065 * MU	CITY OF KEIZER	GW	NESW	12/31/1943	MUNICIPAL USES (P)	*		
Claim:GR 3065 * MU	CITY OF KEIZER	GW	NWSW	12/31/1943	MUNICIPAL USES (P)	*		
Claim:GR 3065 * MU	CITY OF KEIZER	GW	SWSW	12/31/1943	MUNICIPAL USES (P)	*		
Claim:GR 3065 * MU	CITY OF KEIZER	GW	SESW	12/31/1943	MUNICIPAL USES (P)	*		
Claim:GR 3065 * MU	CITY OF KEIZER	GW	NESE	12/31/1943	MUNICIPAL USES (P)	*		
Claim:GR 3065 * MU	CITY OF KEIZER	GW	NWSE	12/31/1943	MUNICIPAL USES (P)	*		
Claim:GR 3065 * MU	CITY OF KEIZER	GW	SWSE	12/31/1943	MUNICIPAL USES (P)	*		
Claim:GR 3065 * MU	CITY OF KEIZER	GW	SESE	12/31/1943	MUNICIPAL USES (P)	*		
Claim:GR 3145 * IR	J HENRY CORA PEDEN	GW	SWNE	12/31/1950	IRRIGATION (P)	1.500		
Claim:GR 3300 * IR	G ROYAL BOLTMAN	GW	NWNW	12/31/1939	IRRIGATION (P)	2.500		
Claim:GR 493 * MU	CARL W. GRUENEWALD II; THE PICTSWEET CO.;HOWARD BISKIE; CITY OF SALEM	GW	NENE	12/31/1940	MUNICIPAL USES (P)	*		
Claim:GR 493 * MU	CARL W. GRUENEWALD II; THE PICTSWEET CO.;HOWARD BISKIE; CITY OF SALEM	GW	SENE	12/31/1940	MUNICIPAL USES (P)	*		

Water Right	Name	Type	QQ	Priority Date	Use	Acres by Use	DLC	Govt Lot
Claim:GR 493 * MU	CARL W. GRUENEWALD II; THE PICTSWEET CO.;HOWARD BISKIE; CITY OF SALEM	GW	NESW	12/31/1940	MUNICIPAL USES (P)	*		
Claim:GR 493 * MU	CARL W. GRUENEWALD II; THE PICTSWEET CO.;HOWARD BISKIE; CITY OF SALEM	GW	NWSW	12/31/1940	MUNICIPAL USES (P)	*		
Claim:GR 493 * MU	CARL W. GRUENEWALD II; THE PICTSWEET CO.;HOWARD BISKIE; CITY OF SALEM	GW	SWSW	12/31/1940	MUNICIPAL USES (P)	*		
Claim:GR 493 * MU	CARL W. GRUENEWALD II; THE PICTSWEET CO.;HOWARD BISKIE; CITY OF SALEM	GW	SESW	12/31/1940	MUNICIPAL USES (P)	*		
Claim:GR 493 * MU	CARL W. GRUENEWALD II; THE PICTSWEET CO.;HOWARD BISKIE; CITY OF SALEM	GW	NESE	12/31/1940	MUNICIPAL USES (P)	*		
Claim:GR 493 * MU	CARL W. GRUENEWALD II; THE PICTSWEET CO.;HOWARD BISKIE; CITY OF SALEM	GW	NWSE	12/31/1940	MUNICIPAL USES (P)	*		
Claim:GR 493 * MU	CARL W. GRUENEWALD II; THE PICTSWEET CO.;HOWARD BISKIE; CITY OF SALEM	GW	SWSE	12/31/1940	MUNICIPAL USES (P)	*		
Claim:GR 493 * MU	CARL W. GRUENEWALD II; THE PICTSWEET CO.;HOWARD BISKIE; CITY OF SALEM	GW	SESE	12/31/1940	MUNICIPAL USES (P)	*		
Inchoate: T 10591 CF (REG) * MU	CITY OF KEIZER	GW	NENE	7/13/1981	MUNICIPAL USES (P)	(*)		
Inchoate: T 10591 CF (REG) * MU	CITY OF KEIZER	GW	NWNE	7/13/1981	MUNICIPAL USES (P)	(*)		
Inchoate: T 10591 CF (REG) * MU	CITY OF KEIZER	GW	SWNE	7/13/1981	MUNICIPAL USES (P)	(*)		
Inchoate: T 10591 CF (REG) * MU	CITY OF KEIZER	GW	SENE	7/13/1981	MUNICIPAL USES (P)	(*)		
Inchoate: T 10591 CF (REG) * MU	CITY OF KEIZER	GW	NENW	7/13/1981	MUNICIPAL USES (P)	(*)		
Inchoate: T 10591 CF (REG) * MU	CITY OF KEIZER	GW	NWNW	7/13/1981	MUNICIPAL USES (P)	(*)		
Inchoate: T 10591 CF (REG) * MU	CITY OF KEIZER	GW	SWNW	7/13/1981	MUNICIPAL USES (P)	(*)		
Inchoate: T 10591 CF (REG) * MU	CITY OF KEIZER	GW	SENW	7/13/1981	MUNICIPAL USES (P)	(*)		
Inchoate: T 10591 CF (REG) * MU	CITY OF KEIZER	GW	NESW	7/13/1981	MUNICIPAL USES (P)	(*)		

Water Right	Name	Type	QQ	Priority Date	Use	Acres by Use	DLC	Govt Lot
Inchoate: T 10591 CF (REG) * MU	CITY OF KEIZER	GW	NWSW	7/13/1981	MUNICIPAL USES (P)	(*)		
Inchoate: T 10591 CF (REG) * MU	CITY OF KEIZER	GW	NESE	7/13/1981	MUNICIPAL USES (P)	(*)		
Inchoate: T 10591 CF (REG) * MU	CITY OF KEIZER	GW	NWSE	7/13/1981	MUNICIPAL USES (P)	(*)		
Permit: G 11899 * MU	CITY OF KEIZER	GW	NENE	2/28/1992	MUNICIPAL USES (P)	*		
Permit: G 11899 * MU	CITY OF KEIZER	GW	NWNE	2/28/1992	MUNICIPAL USES (P)	*		
Permit: G 11899 * MU	CITY OF KEIZER	GW	SWNE	2/28/1992	MUNICIPAL USES (P)	*		
Permit: G 11899 * MU	CITY OF KEIZER	GW	SENE	2/28/1992	MUNICIPAL USES (P)	*		
Permit: G 11899 * MU	CITY OF KEIZER	GW	NENW	2/28/1992	MUNICIPAL USES (P)	*		
Permit: G 11899 * MU	CITY OF KEIZER	GW	NWNW	2/28/1992	MUNICIPAL USES (P)	*		
Permit: G 11899 * MU	CITY OF KEIZER	GW	SWNW	2/28/1992	MUNICIPAL USES (P)	*		
Permit: G 11899 * MU	CITY OF KEIZER	GW	SENW	2/28/1992	MUNICIPAL USES (P)	*		
Permit: G 11899 * MU	CITY OF KEIZER	GW	NESW	2/28/1992	MUNICIPAL USES (P)	*		
Permit: G 11899 * MU	CITY OF KEIZER	GW	NWSW	2/28/1992	MUNICIPAL USES (P)	*		
Permit: G 11899 * MU	CITY OF KEIZER	GW	SWSW	2/28/1992	MUNICIPAL USES (P)	*		
Permit: G 11899 * MU	CITY OF KEIZER	GW	SESW	2/28/1992	MUNICIPAL USES (P)	*		
Permit: G 11899 * MU	CITY OF KEIZER	GW	NESE	2/28/1992	MUNICIPAL USES (P)	*		
Permit: G 11899 * MU	CITY OF KEIZER	GW	NWSE	2/28/1992	MUNICIPAL USES (P)	*		
Permit: G 11899 * MU	CITY OF KEIZER	GW	SWSE	2/28/1992	MUNICIPAL USES (P)	*		
Permit: G 11899 * MU	CITY OF KEIZER	GW	SESE	2/28/1992	MUNICIPAL USES (P)	*		
Permit: G 12317 * IM	RIVER BEND SAND AND GRAVEL	GW	SENE	10/3/1991	INDUSTRIAL/MANUFACTURING USES (P)	*		
Permit: G 12317 * IM	RIVER BEND SAND AND GRAVEL	GW	NESE	10/3/1991	INDUSTRIAL/MANUFACTURING USES (P)	*		
Permit: G 15369 * MU	CITY OF KEIZER	GW	NENE	3/27/2002	MUNICIPAL USES (P)	*		
Permit: G 15369 * MU	CITY OF KEIZER	GW	NWNE	3/27/2002	MUNICIPAL USES (P)	*		
Permit: G 15369 * MU	CITY OF KEIZER	GW	SWNE	3/27/2002	MUNICIPAL USES (P)	*		
Permit: G 15369 * MU	CITY OF KEIZER	GW	SENE	3/27/2002	MUNICIPAL USES (P)	*		
Permit: G 15369 * MU	CITY OF KEIZER	GW	NENW	3/27/2002	MUNICIPAL USES (P)	*		

Water Right	Name	Type	QQ	Priority Date	Use	Acres by Use	DLC	Govt Lot
Permit: G 15369 * MU	CITY OF KEIZER	GW	NWNW	3/27/2002	MUNICIPAL USES (P)	*		
Permit: G 15369 * MU	CITY OF KEIZER	GW	SWNW	3/27/2002	MUNICIPAL USES (P)	*		
Permit: G 15369 * MU	CITY OF KEIZER	GW	SENW	3/27/2002	MUNICIPAL USES (P)	*		
Permit: G 15369 * MU	CITY OF KEIZER	GW	NESW	3/27/2002	MUNICIPAL USES (P)	*		
Permit: G 15369 * MU	CITY OF KEIZER	GW	NWSW	3/27/2002	MUNICIPAL USES (P)	*		
Permit: G 15369 * MU	CITY OF KEIZER	GW	NWSE	3/27/2002	MUNICIPAL USES (P)	*		
Permit: G 16094 * MU	CITY OF KEIZER	GW	NENE	4/8/2005	MUNICIPAL USES (P)	*		
Permit: G 16094 * MU	CITY OF KEIZER	GW	NWNE	4/8/2005	MUNICIPAL USES (P)	*		
Permit: G 16094 * MU	CITY OF KEIZER	GW	SWNE	4/8/2005	MUNICIPAL USES (P)	*		
Permit: G 16094 * MU	CITY OF KEIZER	GW	SENE	4/8/2005	MUNICIPAL USES (P)	*		
Permit: G 16094 * MU	CITY OF KEIZER	GW	NENW	4/8/2005	MUNICIPAL USES (P)	*		
Permit: G 16094 * MU	CITY OF KEIZER	GW	NWNW	4/8/2005	MUNICIPAL USES (P)	*		
Permit: G 16094 * MU	CITY OF KEIZER	GW	SWNW	4/8/2005	MUNICIPAL USES (P)	*		
Permit: G 16094 * MU	CITY OF KEIZER	GW	SENW	4/8/2005	MUNICIPAL USES (P)	*		
Permit: G 16094 * MU	CITY OF KEIZER	GW	NESW	4/8/2005	MUNICIPAL USES (P)	*		
Permit: G 16094 * MU	CITY OF KEIZER	GW	NWSW	4/8/2005	MUNICIPAL USES (P)	*		
Permit: G 16094 * MU	CITY OF KEIZER	GW	SWSW	4/8/2005	MUNICIPAL USES (P)	*		
Permit: G 16094 * MU	CITY OF KEIZER	GW	SESW	4/8/2005	MUNICIPAL USES (P)	*		
Permit: G 16094 * MU	CITY OF KEIZER	GW	NESE	4/8/2005	MUNICIPAL USES (P)	*		
Permit: G 16094 * MU	CITY OF KEIZER	GW	NWSE	4/8/2005	MUNICIPAL USES (P)	*		
Permit: G 16094 * MU	CITY OF KEIZER	GW	SWSE	4/8/2005	MUNICIPAL USES (P)	*		
Permit: G 16094 * MU	CITY OF KEIZER	GW	SESE	4/8/2005	MUNICIPAL USES (P)	*		
Permit: G 16164 * MU	CITY OF KEIZER; KEIZER STATION	GW	NENE	12/28/2005	MUNICIPAL USES (P)	*		
Permit: G 16164 * MU	CITY OF KEIZER; KEIZER STATION	GW	NWNE	12/28/2005	MUNICIPAL USES (P)	*		
Permit: G 16164 * MU	CITY OF KEIZER; KEIZER STATION	GW	SWNE	12/28/2005	MUNICIPAL USES (P)	*		

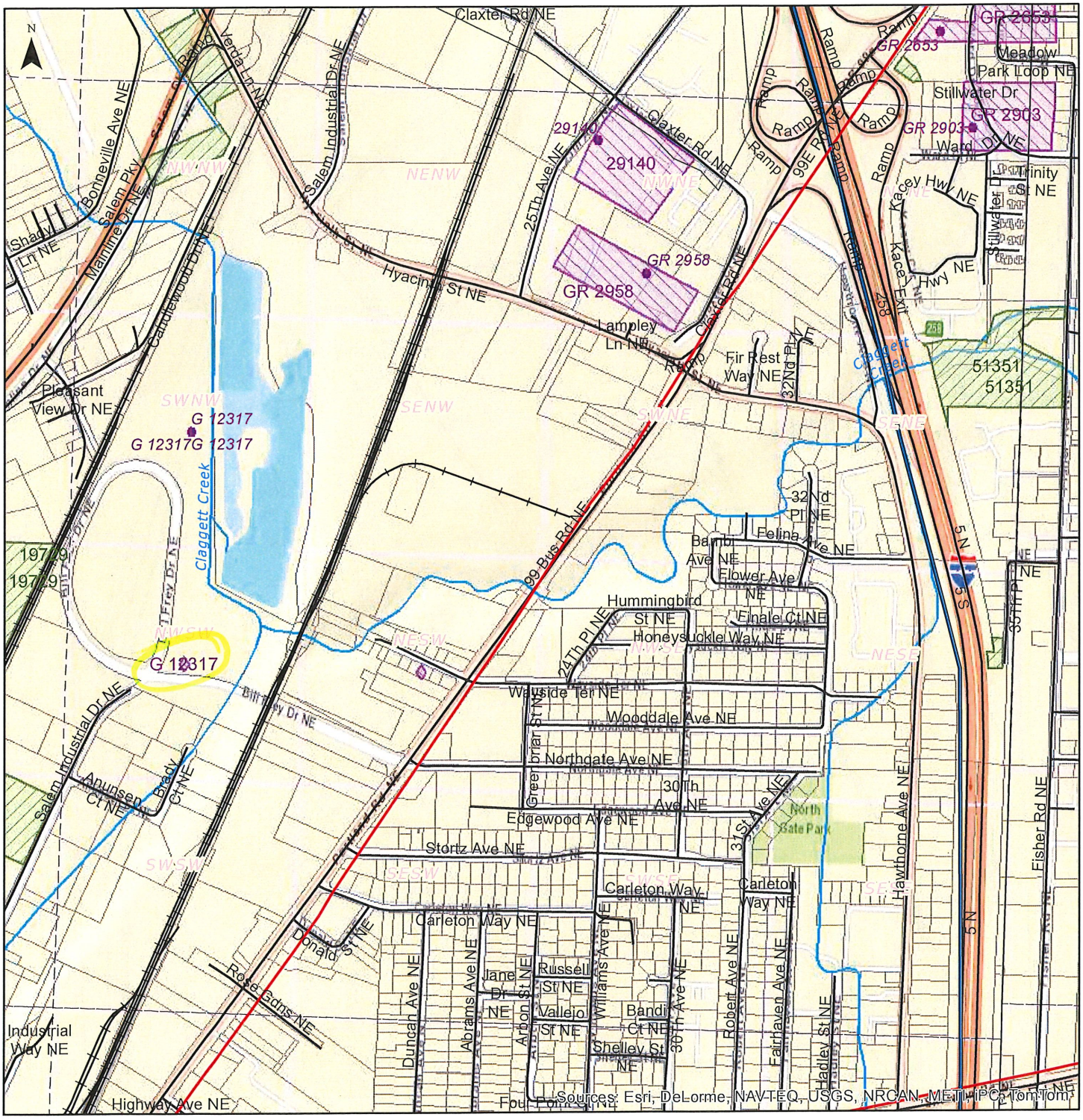
Water Right	Name	Type	QQ	Priority Date	Use	Acres by Use	DLC	Govt Lot
Permit: G 16164 * MU	CITY OF KEIZER; KEIZER STATION	GW	SENE	12/28/2005	MUNICIPAL USES (P)	*		
Permit: G 16164 * MU	CITY OF KEIZER; KEIZER STATION	GW	NENW	12/28/2005	MUNICIPAL USES (P)	*		
Permit: G 16164 * MU	CITY OF KEIZER; KEIZER STATION	GW	NWNW	12/28/2005	MUNICIPAL USES (P)	*		
Permit: G 16164 * MU	CITY OF KEIZER; KEIZER STATION	GW	SWNW	12/28/2005	MUNICIPAL USES (P)	*		
Permit: G 16164 * MU	CITY OF KEIZER; KEIZER STATION	GW	SENW	12/28/2005	MUNICIPAL USES (P)	*		
Permit: G 16164 * MU	CITY OF KEIZER; KEIZER STATION	GW	NESW	12/28/2005	MUNICIPAL USES (P)	*		
Permit: G 16164 * MU	CITY OF KEIZER; KEIZER STATION	GW	NWSW	12/28/2005	MUNICIPAL USES (P)	*		
Permit: G 16164 * MU	CITY OF KEIZER; KEIZER STATION	GW	SWSW	12/28/2005	MUNICIPAL USES (P)	*		
Permit: G 16164 * MU	CITY OF KEIZER; KEIZER STATION	GW	SESW	12/28/2005	MUNICIPAL USES (P)	*		
Permit: G 16164 * MU	CITY OF KEIZER; KEIZER STATION	GW	NESE	12/28/2005	MUNICIPAL USES (P)	*		
Permit: G 16164 * MU	CITY OF KEIZER; KEIZER STATION	GW	NWSE	12/28/2005	MUNICIPAL USES (P)	*		
Permit: G 16164 * MU	CITY OF KEIZER; KEIZER STATION	GW	SWSE	12/28/2005	MUNICIPAL USES (P)	*		
Permit: G 16164 * MU	CITY OF KEIZER; KEIZER STATION	GW	SESE	12/28/2005	MUNICIPAL USES (P)	*		

Oregon Water Resources Department

Water Rights by Type

WM07.00S03.00W12

Map Date: February 3, 2017



0 1,000 Feet

For more information:
http://www.wrd.state.or.us and
http://apps.wrd.state.or.us/apps/wr/wrinfo/

This map is for informal purposes only. It is not intended for legal, engineering or surveying purposes. Municipal rights are not included on this map.

Legend

Points of Diversion

- 75030
- 24883
- 24883

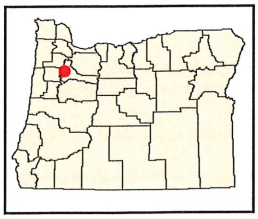
Places of Use

- 75030 — Storage water
- 24883 — Surface water
- 24883 — Ground water

Water Rights - Outline to be determined. (Applies to all colors)

Water right labels indicate certificate number or permit letter(s) and number. Municiple uses excluded.

Index Map

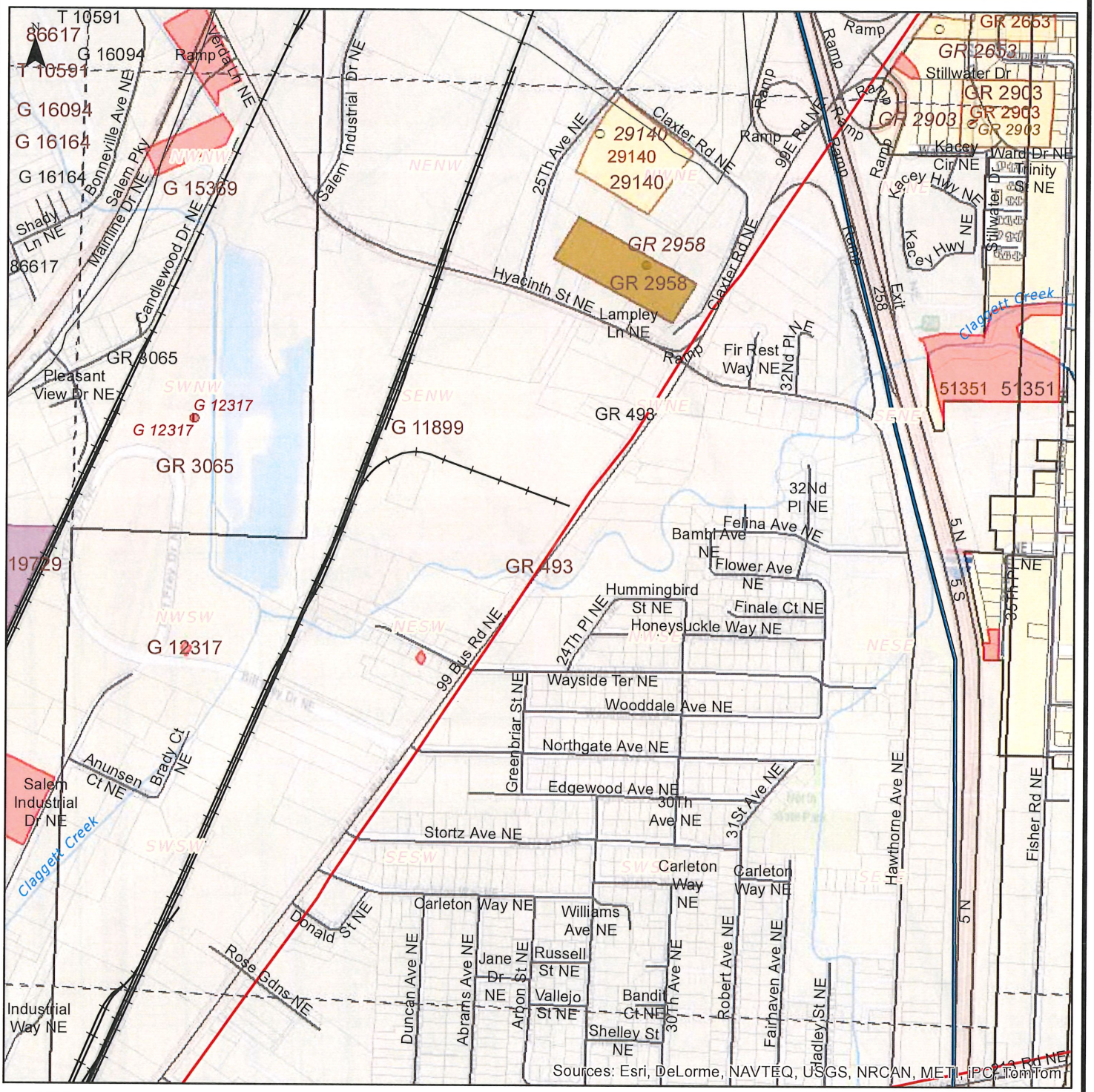


Oregon Water Resources Department

Water Rights by Use

WM07.00S03.00W12

Map Date: February 3, 2017



0 1,000 Feet

Legend

* POD - Points of Diversion
POU - Places of Use

For more information:
http://www.wrd.state.or.us
and
http://apps.wrd.state.or.us/apps/wr/wrinfo/

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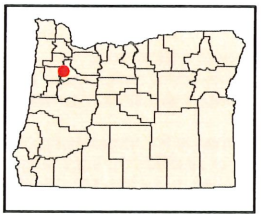
POD*	POU*		POD	POU		POD	POU	
○	☐	Municipal	○	☐	Irrigation	●	☐	Instream
●	☐	Domestic	●	▨	Livestock	●	▨	Wildlife
●	☐	Commercial	●	☐	Agriculture	●	▨	Fish
●	☐	Power	●	☐	Misc.	○	▨	Recreation
●	☐	Mining	◊	Water Rights - Outline to be determined. (Applies to all colors)				

Index Map



Oregon Water Resources Department
725 Summer Street NE
Salem, OR 97301
(503)986-0900

Report Date: 2/3/2017

Water Right Report for Section WM7.00S3.00W12

Legend

Type: (GW) = Ground Water; (ST) = Storage Water; (SW) = Surface Water

Use: (P) = Primary; (S) = Supplemental

Volume Acre Feet(af): (e) = estimated

Acreage: 12.25 Regular acreage | ~~12.25~~ Acreage is on a canceled right | (12.25) Acreage is part of a transfer and has not been proven up on yet (inchoate) | [12.25] Acreage has been suspended | * Acreage is not specified

Points of Diversions (POD)

r Right	Name	Type	Nbr	QQ	Priority Date	Source \ Stream	Use	Max Rate (cfs)	Rate (cfs)	Max Vol. (af)	Vol. (af)	Season Start	Sea En
29140 OR * IR	MARC SAUCY	GW	1	NWNE	1/18/1957	A WELL \ FORD CREEK	IRRIGATION (P)	0.070	0.070			3/1	1(
ı:GR 2903 * IR	JOHN H DENNY	GW	1	NENE	9/8/1937	A WELL \ CLAGGETT CREEK	IRRIGATION (P)	0.078	0.078			3/1	1(
ı:GR 2958 * NU	OSCAR D OLSON	GW	1	NWNE	12/31/1927	A WELL \ CLAGGETT CREEK	NURSERY USES (P)	0.134	0.134			1/1	12
it: G 12317 * IM	RIVER BEND SAND AND GRAVEL	GW	1	SWNW	10/3/1991	PUMP 1 \ CLEAR LAKE	INDUSTRIAL/MANUFACTURING USES (P)	1.560	1.560			1/1	12
it: G 12317 * IM	RIVER BEND SAND AND GRAVEL	GW	2	SWNW	10/3/1991	PUMP 2 \ CLEAR LAKE	INDUSTRIAL/MANUFACTURING USES (P)	1.560	0.000			1/1	12
it: G 12317 * IM	RIVER BEND SAND AND GRAVEL	GW	3	SWNW	10/3/1991	PUMP 3 \ CLEAR LAKE	INDUSTRIAL/MANUFACTURING USES (P)	1.560	0.000			1/1	12

Places of Use (POU)

Water Right	Name	Type	QQ	Priority Date	Use	Acres by Use	DLC	Govt Lot
Cert:29140 OR * IR	MARC SAUCY	GW	NWNE	1/18/1957	IRRIGATION (P)	5.500		
Cert:29140 OR * IR	MARC SAUCY	GW	NENW	1/18/1957	IRRIGATION (P)	0.400		
Cert:31611 OR * MU	KEIZER WATER DISTRICT	GW	SWNW	1/30/1956	MUNICIPAL USES (P)	*		
Cert:86617 RR CR * MU	CITY OF KEIZER	GW	NWNW	7/13/1981	MUNICIPAL USES (P)	*		
Cert:86617 RR CR * MU	CITY OF KEIZER	GW	SWNW	7/13/1981	MUNICIPAL USES (P)	*		
Claim:GR 2903 * IR	JOHN H DENNY	GW	NENE	9/8/1937	IRRIGATION (P)	4.370		
Claim:GR 2958 * NU	OSCAR D OLSON	GW	NWNE	12/31/1927	NURSERY USES (P)	1.000		
Claim:GR 2958 * NU	OSCAR D OLSON	GW	SWNE	12/31/1927	NURSERY USES (P)	1.000		
Claim:GR 2958 * NU	OSCAR D OLSON	GW	NENW	12/31/1927	NURSERY USES (P)	2.000		
Claim:GR 3065 * MU	CITY OF KEIZER	GW	NWNW	12/31/1943	MUNICIPAL USES (P)	*		
Claim:GR 3065 * MU	CITY OF KEIZER	GW	SWNW	12/31/1943	MUNICIPAL USES (P)	*		
Claim:GR 493 * MU	CARL W. GRUENEWALD II; THE PICTSWEET CO.;HOWARD BISKIE; CITY OF SALEM	GW	NENE	12/31/1940	MUNICIPAL USES (P)	*		
Claim:GR 493 * MU	CARL W. GRUENEWALD II; THE PICTSWEET CO.;HOWARD BISKIE; CITY OF SALEM	GW	NWNE	12/31/1940	MUNICIPAL USES (P)	*		
Claim:GR 493 * MU	CARL W. GRUENEWALD II; THE PICTSWEET CO.;HOWARD BISKIE; CITY OF SALEM	GW	SWNE	12/31/1940	MUNICIPAL USES (P)	*		
Claim:GR 493 * MU	CARL W. GRUENEWALD II; THE PICTSWEET CO.;HOWARD BISKIE; CITY OF SALEM	GW	SENE	12/31/1940	MUNICIPAL USES (P)	*		
Claim:GR 493 * MU	CARL W. GRUENEWALD II; THE PICTSWEET CO.;HOWARD BISKIE; CITY OF SALEM	GW	NENW	12/31/1940	MUNICIPAL USES (P)	*		
Claim:GR 493 * MU	CARL W. GRUENEWALD II; THE PICTSWEET CO.;HOWARD BISKIE; CITY OF SALEM	GW	NWNW	12/31/1940	MUNICIPAL USES (P)	*		
Claim:GR 493 * MU	CARL W. GRUENEWALD II; THE PICTSWEET CO.;HOWARD BISKIE; CITY OF SALEM	GW	SWNW	12/31/1940	MUNICIPAL USES (P)	*		

Water Right	Name	Type	QQ	Priority Date	Use	Acres by Use	DLC	Govt Lot
Claim:GR 493 * MU	CARL W. GRUENEWALD II; THE PICTSWEET CO.;HOWARD BISKIE; CITY OF SALEM	GW	SENW	12/31/1940	MUNICIPAL USES (P)	*		
Claim:GR 493 * MU	CARL W. GRUENEWALD II; THE PICTSWEET CO.;HOWARD BISKIE; CITY OF SALEM	GW	NESW	12/31/1940	MUNICIPAL USES (P)	*		
Claim:GR 493 * MU	CARL W. GRUENEWALD II; THE PICTSWEET CO.;HOWARD BISKIE; CITY OF SALEM	GW	NWSW	12/31/1940	MUNICIPAL USES (P)	*		
Claim:GR 493 * MU	CARL W. GRUENEWALD II; THE PICTSWEET CO.;HOWARD BISKIE; CITY OF SALEM	GW	SWSW	12/31/1940	MUNICIPAL USES (P)	*		
Claim:GR 493 * MU	CARL W. GRUENEWALD II; THE PICTSWEET CO.;HOWARD BISKIE; CITY OF SALEM	GW	SESW	12/31/1940	MUNICIPAL USES (P)	*		
Claim:GR 493 * MU	CARL W. GRUENEWALD II; THE PICTSWEET CO.;HOWARD BISKIE; CITY OF SALEM	GW	NESE	12/31/1940	MUNICIPAL USES (P)	*		
Claim:GR 493 * MU	CARL W. GRUENEWALD II; THE PICTSWEET CO.;HOWARD BISKIE; CITY OF SALEM	GW	NWSE	12/31/1940	MUNICIPAL USES (P)	*		
Claim:GR 493 * MU	CARL W. GRUENEWALD II; THE PICTSWEET CO.;HOWARD BISKIE; CITY OF SALEM	GW	SWSE	12/31/1940	MUNICIPAL USES (P)	*		
Claim:GR 493 * MU	CARL W. GRUENEWALD II; THE PICTSWEET CO.;HOWARD BISKIE; CITY OF SALEM	GW	SESE	12/31/1940	MUNICIPAL USES (P)	*		
Inchoate: T 10440 CF (REG) * IR	ROSEROCK EAST LLC;DOMAINE DROUHIN OREGON	SW	NESE	5/6/1952	IRRIGATION (P)	(0.230)		
Inchoate: T 10440 CF (REG) * IS	ROSEROCK EAST LLC;DOMAINE DROUHIN OREGON	SW	NESE	5/9/1967	SUPPLEMENTAL IRRIGATION (S)	(0.230)		
Inchoate: T 10591 CF (REG) * MU	CITY OF KEIZER	GW	NWNW	7/13/1981	MUNICIPAL USES (P)	(*)		
Inchoate: T 10591 CF (REG) * MU	CITY OF KEIZER	GW	SWNW	7/13/1981	MUNICIPAL USES (P)	(*)		
Permit: G 11899 * MU	CITY OF KEIZER	GW	NENE	2/28/1992	MUNICIPAL USES (P)	*		

Water Right	Name	Type	QQ	Priority Date	Use	Acres by Use	DLC	Govt Lot
Permit: G 11899 * MU	CITY OF KEIZER	GW	NWNE	2/28/1992	MUNICIPAL USES (P)	*		
Permit: G 11899 * MU	CITY OF KEIZER	GW	SWNE	2/28/1992	MUNICIPAL USES (P)	*		
Permit: G 11899 * MU	CITY OF KEIZER	GW	SENE	2/28/1992	MUNICIPAL USES (P)	*		
Permit: G 11899 * MU	CITY OF KEIZER	GW	NENW	2/28/1992	MUNICIPAL USES (P)	*		
Permit: G 11899 * MU	CITY OF KEIZER	GW	NWNW	2/28/1992	MUNICIPAL USES (P)	*		
Permit: G 11899 * MU	CITY OF KEIZER	GW	SWNW	2/28/1992	MUNICIPAL USES (P)	*		
Permit: G 11899 * MU	CITY OF KEIZER	GW	SENW	2/28/1992	MUNICIPAL USES (P)	*		
Permit: G 11899 * MU	CITY OF KEIZER	GW	NESW	2/28/1992	MUNICIPAL USES (P)	*		
Permit: G 11899 * MU	CITY OF KEIZER	GW	NWSW	2/28/1992	MUNICIPAL USES (P)	*		
Permit: G 11899 * MU	CITY OF KEIZER	GW	SWSW	2/28/1992	MUNICIPAL USES (P)	*		
Permit: G 11899 * MU	CITY OF KEIZER	GW	SESW	2/28/1992	MUNICIPAL USES (P)	*		
Permit: G 11899 * MU	CITY OF KEIZER	GW	NESE	2/28/1992	MUNICIPAL USES (P)	*		
Permit: G 11899 * MU	CITY OF KEIZER	GW	NWSE	2/28/1992	MUNICIPAL USES (P)	*		
Permit: G 11899 * MU	CITY OF KEIZER	GW	SWSE	2/28/1992	MUNICIPAL USES (P)	*		
Permit: G 11899 * MU	CITY OF KEIZER	GW	SESE	2/28/1992	MUNICIPAL USES (P)	*		
Permit: G 12317 * IM	RIVER BEND SAND AND GRAVEL	GW	NESW	10/3/1991	INDUSTRIAL/MANUFACTURING USES (P)	*		
Permit: G 12317 * IM	RIVER BEND SAND AND GRAVEL	GW	NWSW	10/3/1991	INDUSTRIAL/MANUFACTURING USES (P)	*		
Permit: G 15369 * MU	CITY OF KEIZER	GW	NWNW	3/27/2002	MUNICIPAL USES (P)	*		
Permit: G 16094 * MU	CITY OF KEIZER	GW	NENE	4/8/2005	MUNICIPAL USES (P)	*		
Permit: G 16094 * MU	CITY OF KEIZER	GW	NWNE	4/8/2005	MUNICIPAL USES (P)	*		
Permit: G 16094 * MU	CITY OF KEIZER	GW	SWNE	4/8/2005	MUNICIPAL USES (P)	*		
Permit: G 16094 * MU	CITY OF KEIZER	GW	SENE	4/8/2005	MUNICIPAL USES (P)	*		
Permit: G 16094 * MU	CITY OF KEIZER	GW	NENW	4/8/2005	MUNICIPAL USES (P)	*		
Permit: G 16094 * MU	CITY OF KEIZER	GW	NWNW	4/8/2005	MUNICIPAL USES (P)	*		
Permit: G 16094 * MU	CITY OF KEIZER	GW	SWNW	4/8/2005	MUNICIPAL USES (P)	*		
Permit: G 16094 * MU	CITY OF KEIZER	GW	SENW	4/8/2005	MUNICIPAL USES (P)	*		

Water Right	Name	Type	QQ	Priority Date	Use	Acres by Use	DLC	Govt Lot
Permit: G 16094 * MU	CITY OF KEIZER	GW	NESW	4/8/2005	MUNICIPAL USES (P)	*		
Permit: G 16094 * MU	CITY OF KEIZER	GW	NWSW	4/8/2005	MUNICIPAL USES (P)	*		
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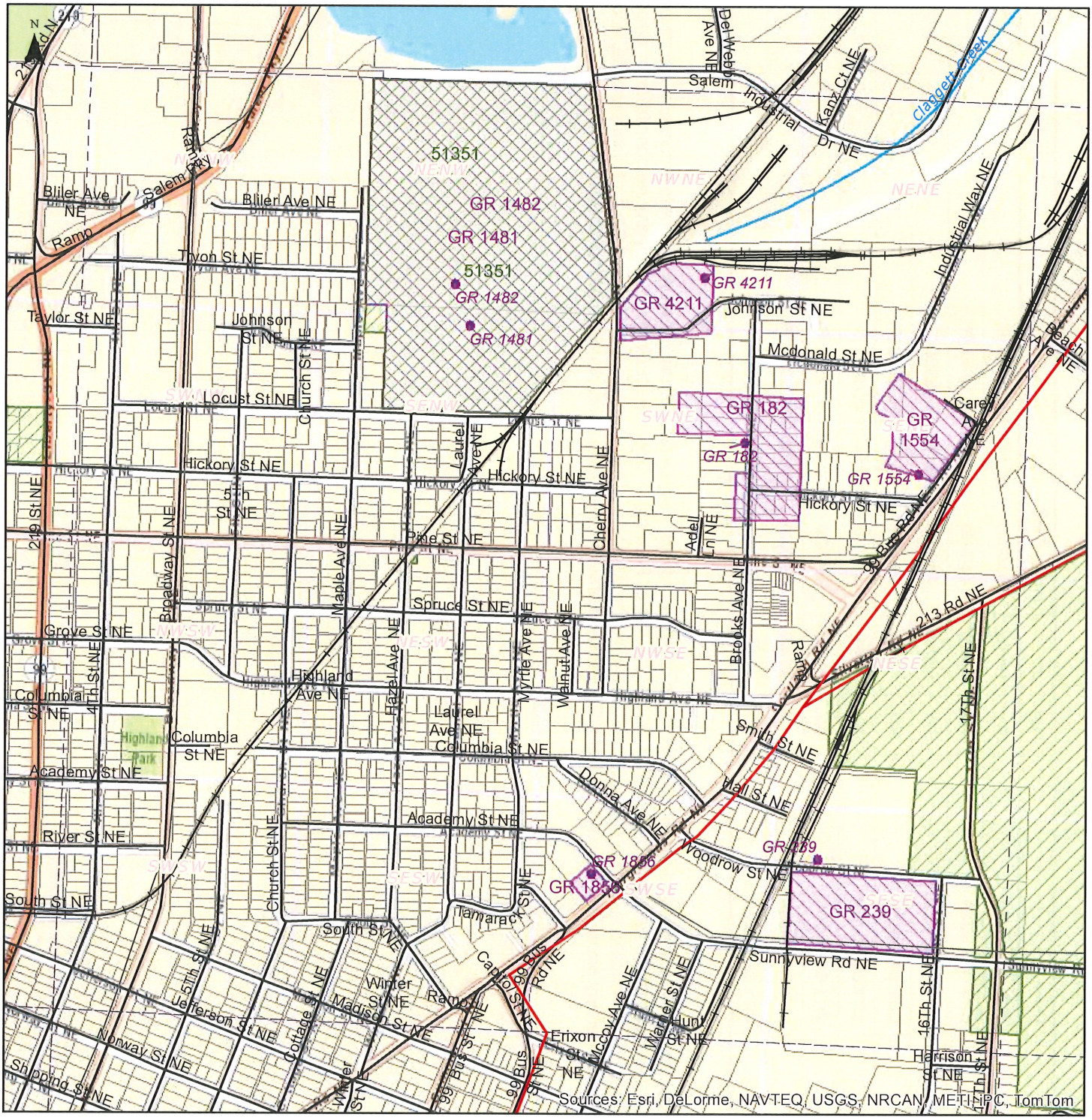
Permit: G 16094 * MU	CITY OF KEIZER	GW	SESW	4/8/2005	MUNICIPAL USES (P)	*		
Permit: G 16094 * MU	CITY OF KEIZER	GW	NESE	4/8/2005	MUNICIPAL USES (P)	*		
Permit: G 16094 * MU	CITY OF KEIZER	GW	NWSE	4/8/2005	MUNICIPAL USES (P)	*		
Permit: G 16094 * MU	CITY OF KEIZER	GW	SWSE	4/8/2005	MUNICIPAL USES (P)	*		
Permit: G 16094 * MU	CITY OF KEIZER	GW	SESE	4/8/2005	MUNICIPAL USES (P)	*		

Oregon Water Resources Department

Water Rights by Type

WM07.00S03.00W14

Map Date: February 3, 2017



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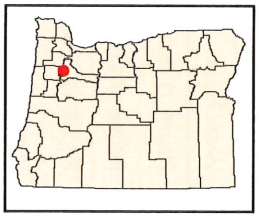
Water Rights - Outline to be determined. (Applies to all colors)

Water right labels indicate certificate number or permit letter(s) and number. Municiple uses excluded.

Index Map

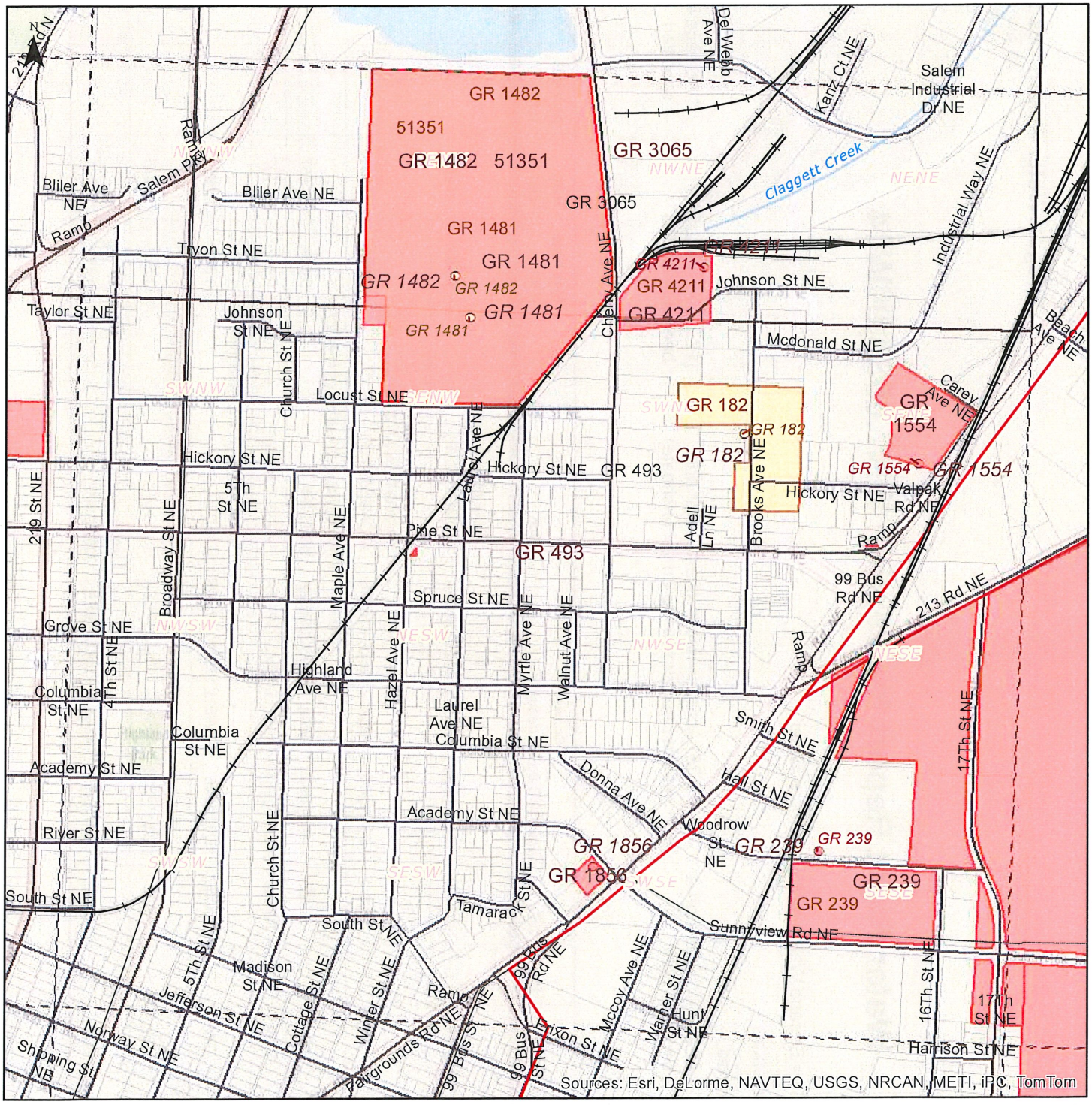


Oregon Water Resources Department

Water Rights by Use

WM07.00S03.00W14

Map Date: February 3, 2017



0 1,000 Feet

Legend

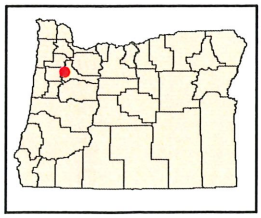
* POD - Points of Diversion
POU - Places of Use

POD*	POU*		POD	POU		POD	POU	
○	☐	Municipal	○	☐	Irrigation	●	☐	Instream
●	☐	Domestic	●	▨	Livestock	●	▨	Wildlife
●	☐	Commercial	●	▩	Agriculture	●	▨	Fish
●	☐	Power	●	☐	Misc.	○	▤	Recreation
●	☐	Mining	◊	Water Rights - Outline to be determined. (Applies to all colors)				

For more information:
http://www.wrd.state.or.us
and
http://apps.wrd.state.or.us/apps/wr/wrinfo/

This map is for informal purposes only. It is not intended for legal, engineering or surveying purposes.

Index Map



Oregon Water Resources Department
725 Summer Street NE
Salem, OR 97301
(503)986-0900

Report Date: 2/3/2017

Water Right Report for Section WM7.00S3.00W14

Legend

Type: (GW) = Ground Water; (ST) = Storage Water; (SW) = Surface Water

Use: (P) = Primary; (S) = Supplemental

Volume Acre Feet(af): (e) = estimated

Acreage: 12.25 Regular acreage; ~~12.25~~ Acreage is on a canceled right; (12.25) Acreage is part of a transfer and has not been proven up on yet (inchoate); [12.25] Acreage has been suspended; * Acreage is not specified

Points of Diversions (POD)

r Right	Name	Type	Nbr	QQ	Priority Date	Source \ Stream	Use	Max Rate (cfs)	Rate (cfs)	Max Vol. (af)	Vol. (af)	Season Start	Sea En
ı:GR 1481 * ID	M B CLATTERBUCK; OREGON SCHOOL FOR THE BLIND	GW	1	SENW	12/31/1920	WELL 1 \ MILL CREEK	IRRIGATION AND DOMESTIC (P)	0.668	0.668			3/1	1(
ı:GR 1482 * ID	M B CLATTERBUCK; OREGON SCHOOL FOR THE BLIND	GW	1	SENW	8/31/1950	WELL 2 \ MILL CREEK	IRRIGATION AND DOMESTIC (P)	0.891	0.891			3/1	1(
ı:GR 1554 * IM	CASCADE MEATS INC.	GW	1	SENE	11/14/1948	WELL 1 \ MILL CREEK	INDUSTRIAL/MANUFACTURING USES (P)	0.557	0.557			1/1	12
ı:GR 182 * IR	JAMES A GARSON	GW	1	NESW	12/31/1954	A WELL \ MILL CREEK	IRRIGATION (P)	0.107	0.107			3/1	1(
ı:GR 1856 * IM	DAIRY COOPERATIVE ASSOCIATION	GW	1	SWSE	5/31/1946	A WELL \ MILL CREEK	INDUSTRIAL/MANUFACTURING USES (P)	0.891	0.891			1/1	12
ı:GR 239 * IM	WILLAMETTE CHERRY GROWERS INC.	GW	1	SESE	12/31/1927	A WELL \ MILL CREEK	INDUSTRIAL/MANUFACTURING USES (P)	0.446	0.446			1/1	12
ı:GR 4211 * IM	SALEM NUT GROWERS	GW	1	NWNE	8/1/1947	A WELL \ MILL CREEK	INDUSTRIAL/MANUFACTURING USES (P)	0.446	0.446			1/1	12

Places of Use (POU)

Water Right	Name	Type	QQ	Priority Date	Use	Acres by Use	DLC	Govt Lot
Claim:GR 1481 * ID	M B CLATTERBUCK; OREGON SCHOOL FOR THE BLIND	GW	NENW	12/31/1920	IRRIGATION AND DOMESTIC (P)	30.000		
Claim:GR 1481 * ID	M B CLATTERBUCK; OREGON SCHOOL FOR THE BLIND	GW	SENW	12/31/1920	IRRIGATION AND DOMESTIC (P)	20.000		
Claim:GR 1482 * ID	M B CLATTERBUCK; OREGON SCHOOL FOR THE BLIND	GW	NENW	8/31/1950	IRRIGATION AND DOMESTIC (P)	30.000		
Claim:GR 1482 * ID	M B CLATTERBUCK; OREGON SCHOOL FOR THE BLIND	GW	SENW	8/31/1950	IRRIGATION AND DOMESTIC (P)	20.000		
Claim:GR 1554 * IM	CASCADE MEATS INC.	GW	SENE	11/14/1948	INDUSTRIAL/MANUFACTURING USES (P)	*		
Claim:GR 182 * IR	JAMES A GARSON	GW	SWNE	12/31/1954	IRRIGATION (P)	3.500		
Claim:GR 1856 * IM	DAIRY COOPERATIVE ASSOCIATION	GW	SWSE	5/31/1946	INDUSTRIAL/MANUFACTURING USES (P)	*		
Claim:GR 239 * IM	WILLAMETTE CHERRY GROWERS INC.	GW	SESE	12/31/1927	INDUSTRIAL/MANUFACTURING USES (P)	*		
Claim:GR 3065 * MU	CITY OF KEIZER	GW	NENE	12/31/1943	MUNICIPAL USES (P)	*		
Claim:GR 3065 * MU	CITY OF KEIZER	GW	NWNE	12/31/1943	MUNICIPAL USES (P)	*		
Claim:GR 3065 * MU	CITY OF KEIZER	GW	NENW	12/31/1943	MUNICIPAL USES (P)	*		
Claim:GR 3065 * MU	CITY OF KEIZER	GW	NWNW	12/31/1943	MUNICIPAL USES (P)	*		
Claim:GR 4211 * IM	SALEM NUT GROWERS	GW	NWNE	8/1/1947	INDUSTRIAL/MANUFACTURING USES (P)	*		
Claim:GR 493 * MU	CARL W. GRUENEWALD II; THE PICTSWEET CO.;HOWARD BISKIE; CITY OF SALEM	GW	NENE	12/31/1940	MUNICIPAL USES (P)	*		
Claim:GR 493 * MU	CARL W. GRUENEWALD II; THE PICTSWEET CO.;HOWARD BISKIE; CITY OF SALEM	GW	NWNE	12/31/1940	MUNICIPAL USES (P)	*		
Claim:GR 493 * MU	CARL W. GRUENEWALD II; THE PICTSWEET CO.;HOWARD BISKIE; CITY OF SALEM	GW	SWNE	12/31/1940	MUNICIPAL USES (P)	*		

Water Right	Name	Type	QQ	Priority Date	Use	Acres by Use	DLC	Govt Lot
Claim:GR 493 * MU	CARL W. GRUENEWALD II; THE PICTSWEET CO.;HOWARD BISKIE; CITY OF SALEM	GW	SENE	12/31/1940	MUNICIPAL USES (P)	*		
Claim:GR 493 * MU	CARL W. GRUENEWALD II; THE PICTSWEET CO.;HOWARD BISKIE; CITY OF SALEM	GW	NENW	12/31/1940	MUNICIPAL USES (P)	*		
Claim:GR 493 * MU	CARL W. GRUENEWALD II; THE PICTSWEET CO.;HOWARD BISKIE; CITY OF SALEM	GW	NWNW	12/31/1940	MUNICIPAL USES (P)	*		
Claim:GR 493 * MU	CARL W. GRUENEWALD II; THE PICTSWEET CO.;HOWARD BISKIE; CITY OF SALEM	GW	SWNW	12/31/1940	MUNICIPAL USES (P)	*		
Claim:GR 493 * MU	CARL W. GRUENEWALD II; THE PICTSWEET CO.;HOWARD BISKIE; CITY OF SALEM	GW	SENW	12/31/1940	MUNICIPAL USES (P)	*		
Claim:GR 493 * MU	CARL W. GRUENEWALD II; THE PICTSWEET CO.;HOWARD BISKIE; CITY OF SALEM	GW	NESW	12/31/1940	MUNICIPAL USES (P)	*		
Claim:GR 493 * MU	CARL W. GRUENEWALD II; THE PICTSWEET CO.;HOWARD BISKIE; CITY OF SALEM	GW	NWSW	12/31/1940	MUNICIPAL USES (P)	*		
Claim:GR 493 * MU	CARL W. GRUENEWALD II; THE PICTSWEET CO.;HOWARD BISKIE; CITY OF SALEM	GW	SWSW	12/31/1940	MUNICIPAL USES (P)	*		
Claim:GR 493 * MU	CARL W. GRUENEWALD II; THE PICTSWEET CO.;HOWARD BISKIE; CITY OF SALEM	GW	SESW	12/31/1940	MUNICIPAL USES (P)	*		
Claim:GR 493 * MU	CARL W. GRUENEWALD II; THE PICTSWEET CO.;HOWARD BISKIE; CITY OF SALEM	GW	NESE	12/31/1940	MUNICIPAL USES (P)	*		
Claim:GR 493 * MU	CARL W. GRUENEWALD II; THE PICTSWEET CO.;HOWARD BISKIE; CITY OF SALEM	GW	NWSE	12/31/1940	MUNICIPAL USES (P)	*		

Water Right	Name	Type	QQ	Priority Date	Use	Acres by Use	DLC	Govt Lot
Claim:GR 493 * MU	CARL W. GRUENEWALD II; THE PICTSWEET CO.;HOWARD BISKIE; CITY OF SALEM	GW	SWSE	12/31/1940	MUNICIPAL USES (P)	*		
Claim:GR 493 * MU	CARL W. GRUENEWALD II; THE PICTSWEET CO.;HOWARD BISKIE; CITY OF SALEM	GW	SESE	12/31/1940	MUNICIPAL USES (P)	*		