Ponderosa Pines Water Company
2015 Water Master Plan Update

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SUMMARY

Ponderosa Pines is a subdivision near La Pine, OR. A vicinity map showing its general location is given in Figure 1. Initial development of the subdivision began in 1970 with the approval of 103 lots which comprise the original development. Four subsequent phases were later added. With approval of the Fourth Addition in 1978, the subdivision grew to a total of 490 lots.

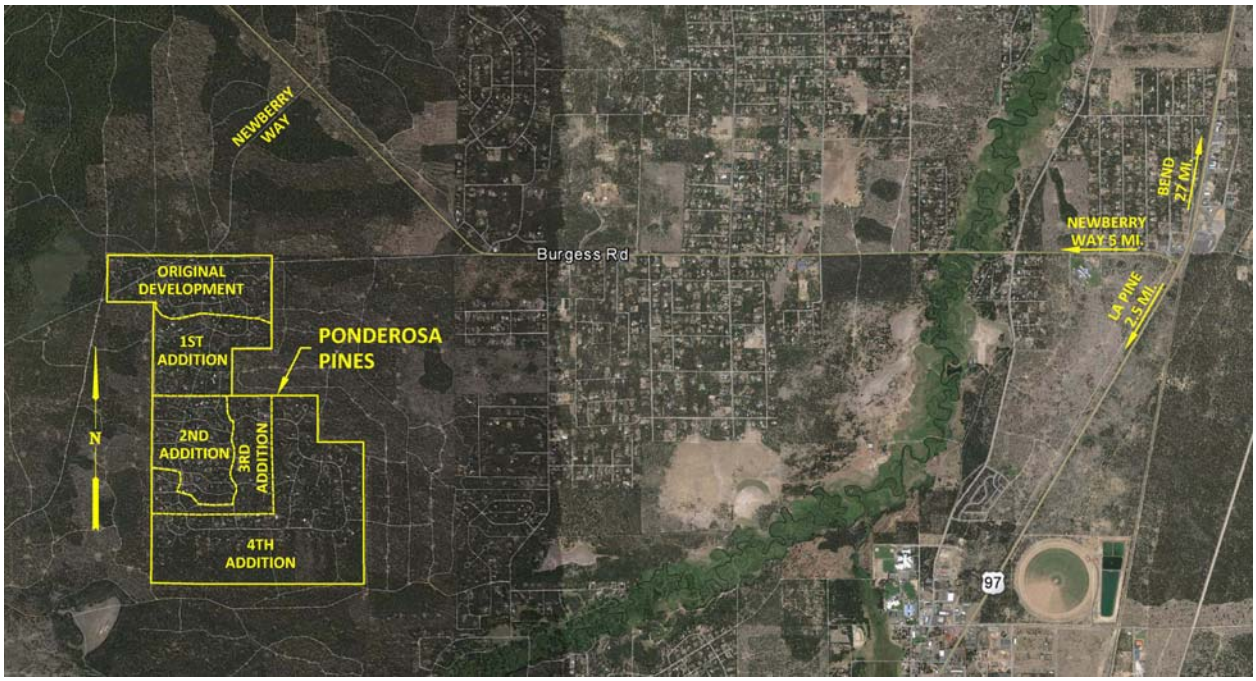

Figure 1-Ponderosa Pines Vicinity Map

Of the 490 total lots, 434 are occupied on either a full or part time basis. The remaining 56 lots are either unoccupied or unbuilt. No additional phases of the development are planned. Based on past growth patterns, full buildout of the subdivision by is anticipated by 2029. Based on an average lot occupancy of 2/lot, the buildout population will be approximately 990 residents.

Water for the subdivision is supplied through a system supplied by two wells and distributed through a network of PVC pipes. The system is owned by the Ponderosa Pine Property Owners Association (PPPOA), and operated by the Ponderosa Pines Water Company (PPWC). Construction of the water system began with the construction of the 103 lots platted in the original development. Extensions to the water distribution system were added concurrent with the development of each phase.

Analysis of the existing water system indicates the system is adequate to meet the peak demands expected once all lots are occupied. Existing facilities are also capable of delivery of at least 250 gpm for fire protection. Higher flow rates for fire protection may be drawn during off-peak times. Water for fire protection is currently drawn using standpipes requiring specialized connections rather than

from standard fire hydrants.

At present PPWC charges residents based on a flat rate with an additional surcharge for any use above 240,000 gallons/year. Due to the time and effort required to collect meter readings, meters are read once annually. Some discussion of reading meters charging users more frequently has taken place; however, the time and effort required makes this impractical at present. In order to do this, replacement of existing meters with a more dependable Automatic Meter Reading (AMR) system would be needed, but due to the high cost for such a system, it's unlikely that the cost would be offset by time savings over the life of the meter. Upgrading to an AMR system is not recommended at this time.

Water for the system is supplied through two groundwater sources, identified as Wells #1 and #2. Well #2 serves as the main source, while Well #1 is used as a backup for emergencies. Well #1 discharges directly to the distribution system while Well #2 discharges to an Aboveground Storage Tank (AST). From the AST, water is supplied to the distribution system by a bank of booster pumps. Both wells are operated under three Water Right Permits. The permits are currently required to be certificated by 2024 and 2026 for Wells #1 and #2 respectively.

At this time, the system cannot be supplied from Well #1 if the booster pumps are operating. This limits the use of Well #1. PPWC has expressed interest in augmenting their sources to improve flexibility of their supply. The following alternatives were considered in this master plan in order to meet this end:

- Installation of a 6-inch main from Well #1 that would discharge directly to the AST
- Construction of a second AST and booster station at Well #1
- Drilling a third well in the vicinity of Well #2 that would discharge to the existing AST

Based on an analysis of the three alternatives, drilling a third well is recommended as the preferred alternative based on cost. This is discussed in greater detail in the report. Water rights would need to be obtained to use water from a third well, which could most easily be obtained through an amendment to PPWC's existing water right permits.

The existing distribution system consists of a network of 2, 4, 6, and 8-inch PVC pipe fed by a booster pump system that draws from the AST. The system is well looped and valved to allow isolation of most sections with relative ease. Because of the pipe's age, concerns have been raised over its remaining service life. At the time the 2001 Master Plan was prepared, the service life of PVC pipe was thought to be 30-50 years. However, recent research now indicates that PVC pipe can last up to and beyond 100 years if installed properly. Based on the lack of problems with pipe failure experienced over the past 40 years, this appears to be the case for the PPWC system. For this master plan update, an 80 year service life is assumed for the system piping based on current research and local experience.

Short term improvements for the system include:

- the addition of fire hydrants to improve access to water for firefighting activity, and
- the installation of four sampling stations to facilitate collection of samples for testing, and
- drilling a 3rd well to augment their water sources.

These improvements may be funded either on a pay-as-you-go basis, or through short term financing. Funding for these improvements could be achieved by increasing reserve rates from $75 to $103/year increase in the rates for all users for the next 10 years.

Long term improvements include replacement of existing system piping as it nears the end of its service life and of the aboveground storage tank. Based on an 80-year service life for the distribution system piping and a 60-year service life for the tank, replacement would commence in 2050 and conclude by 2058. The community can begin preparation for this work by creating a reserve fund to cover all or part of the costs of pipe and tank replacement at this time. Based on projected costs, a rate increase of approximately $31/month or $370/year from all water users would fully fund line replacement projects by this date. Smaller increases could also be considered that would partially fund replacement costs, with the remainder funded through financing at the time of replacement. However, further discussion by the community is recommended before action is taken on funding of long term improvements.

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I. INTRODUCTION

Ponderosa Pines is a single family residential development located near the community of La Pine, OR. The original development included 103 lots and was platted in 1970. Over the years subsequent phases were added bringing the total to 490 lots by 1978. Currently, 434 lots are occupied on a full or part time basis, and 56 lots are unoccupied. A vicinity map showing the development's location is included in the previous section.

Water for the development is provided by the Ponderosa Pines Water Company (PPWC), a private water association owned by the Ponderosa Pines Homeowners Association (PPPOA). Water is supplied from two wells located within the development, identified respectively as Well #1 and Well #2. Well #2 is the primary source. Water from Well #2 is pumped to an Aboveground Storage Tank (AST). Water is drawn from the tank by a booster pump station and is distributed throughout the development through a network of PVC pipelines ranging in diameter from 2-8 inches. Well #1 was the original source, but now is used as a backup source for emergencies. Services within the development are metered. A number of meters allow for Automatic Meter Reading (AMR), but a number of meters have failed in recent years and can now only be read manually. Two-inch standpipes are interspersed throughout Ponderosa Pines that allow water to be drawn for fire protection. A map depicting the layout of the water system map is included in Appendix J of this report.

PPWC has a current master plan in accordance with OAR 333-061-0060 (5). In 2001 a master plan was prepared by Century West in fulfillment of this requirement. That report included the following items:

- Overall Summary
- A description of existing facilities
- A 20-year growth projection, future demand assessment, and improvement plan
- A recommended program of improvements
- An evaluation of financing options for future improvements

Key recommendations of the 2001 master plan included: metering of service connections to enable development and adoption of a rate structure based on actual use by individual residents, and planning for replacement of existing distribution system piping.

Although not required by statute, Ponderosa Pines Water has elected to update their master plan to help guide the ongoing operation of the system and to help in planning and preparing for future costs of maintenance and replacement of system components. Key issues they wish to evaluate include:

- replacing existing meters with more dependable units to facilitate AMR
- replacement of the existing standpipes with more conventional fire hydrants
- augmentation of their source(s) to improve source redundancy; and
- refinement of the schedule and costs for distribution system replacement.

Other elements of the plan are updated in this plan, including: the system description, service goals, population projections, existing system evaluation, upgrade alternatives, financial planning, and recommended improvements. These master plan elements are presented in the following sections.

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II. POPULATION AND WATER USE

A. Population Trends since Inception

Since its inception, in 1970, Ponderosa Pines has experienced continuous growth that has tapered off as more of the development is built out. In 2001, it was estimated that all Phases would be completely developed by 2010. However, in the 10 years since, growth has slowed and full development is now projected to happen on or around 2029. This is based on the growth trends of the past 10 years. Currently, 56 lots remain available. Given the population density of 2 persons/lot, the total population at buildout would be approximately 980. The population after this time is expected to remain constant. Population records for the development are included in Appendix A.

B. Water Use

Records have been kept of water use for the years 1991 to the present (2014). These data are based on readings from flow meters located at Wells #1 and 2 which supply the development's water. Annual totals are shown below in Figure 2. Copies of the water use records are included in Appendix B.

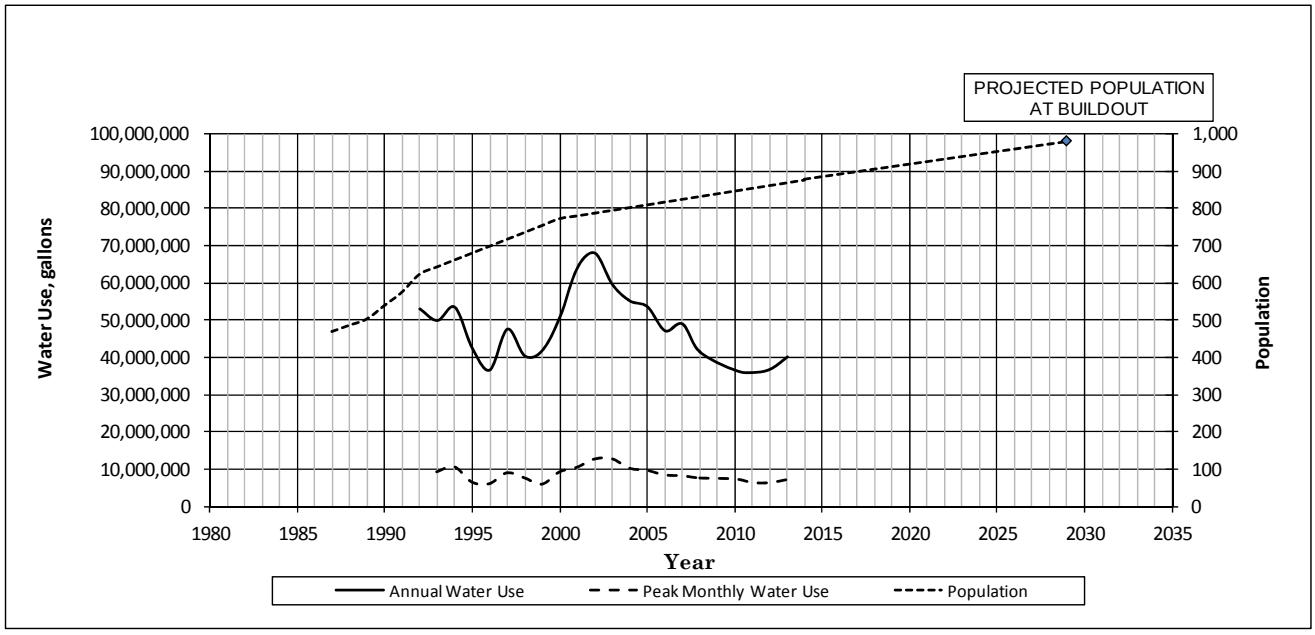

Figure 2-Population and Water Use

Although peak monthly use has seen little change, total water use over the course of the year dropped significantly beginning in 2002. Since 2008, total water annual use has been stable despite the continued population growth of the community. Reductions are likely due to conservation efforts and possibly surcharges that were implemented for high use (over 240,000 gallons/year/service).

Monthly use for the last full year of data is shown in Figure 3. Monthly use peaks during the summer months when lawn/garden irrigation is highest. Higher summer use may also be due to ground

irrigation to reduce fire danger.

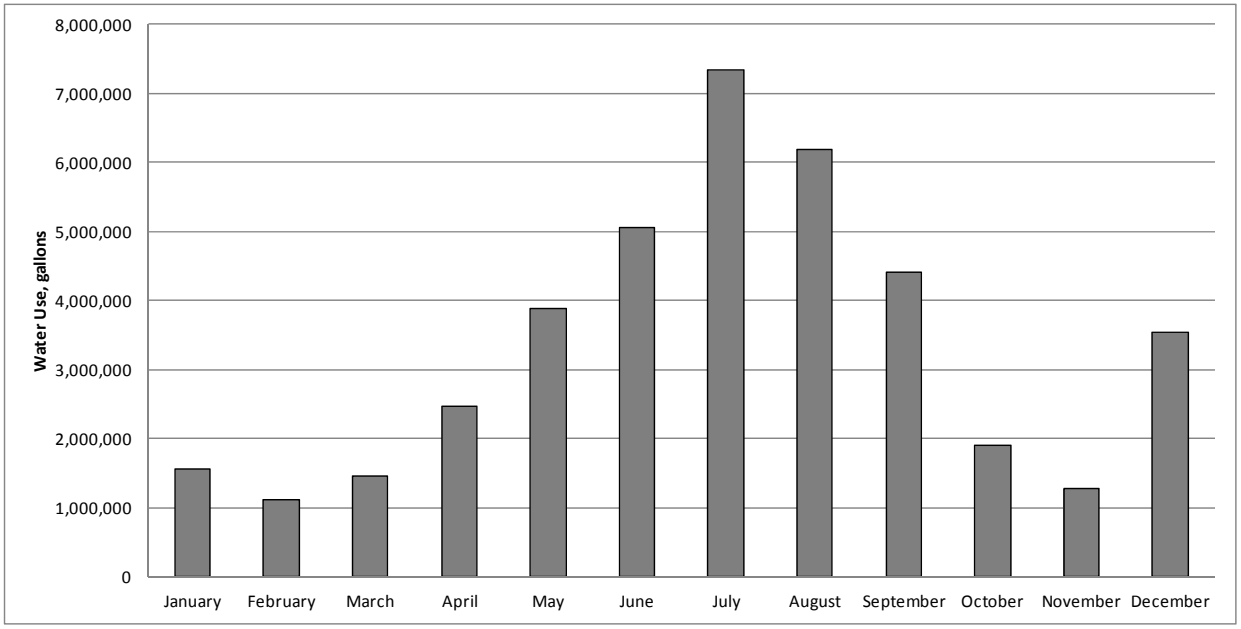

Figure 3-2013 Monthly Totals

Based on the estimated population and maximum monthly use, the peak monthly use per capita may be estimated. This is shown in Figure 4. As is the case with annual use, the amount of water used per person in the community has also dropped since 2002 and leveled off to approximately 250 gpcd. Based on this estimate of peak daily use per person and a peak factor of 2.9, the maximum instantaneous use is approximately 475 gpm.

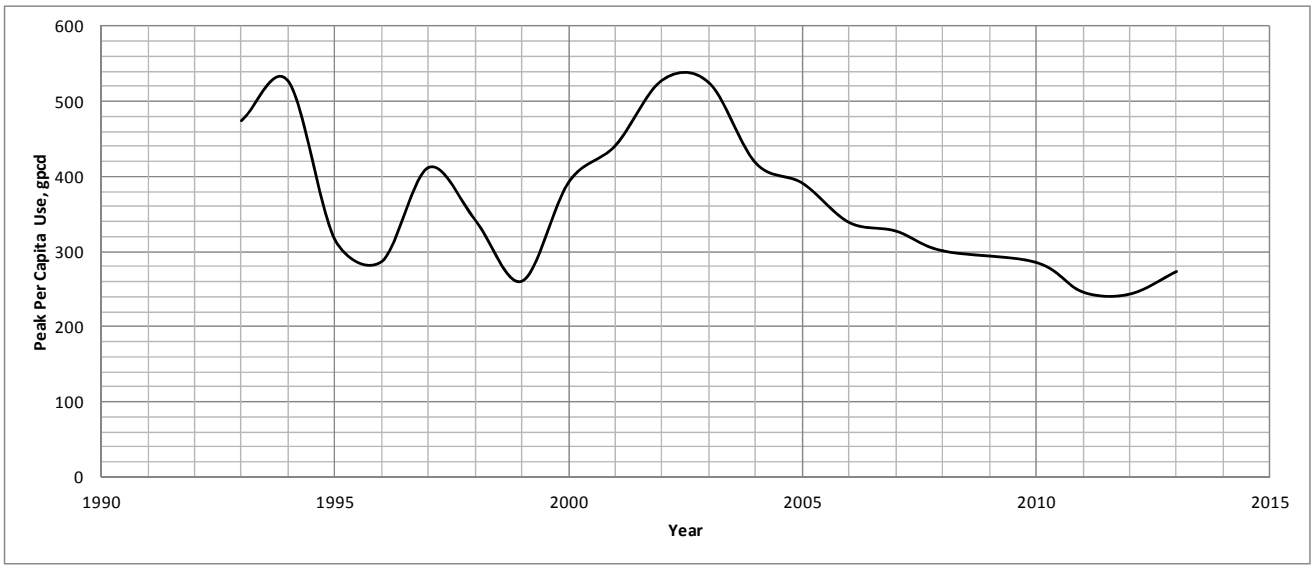

Figure 4-Peak Summer Use per Capita

C. Fire Protection Requirements

Based on the predominance of small diameter (two to six inch) pipe that serves the community, fire protection does not appear to have been a major consideration in the original design of the water system. No fire hydrants are located within the system; however, 2-inch standpipes have been interspersed throughout the system that allows water to be drawn for fire protection. The standpipes require special fittings. The La Pine Fire Department, the first responder under normal circumstances, is equipped with the necessary adapters to connect to these standpipes as is the PPW. Other responders that might be involved with fire fighting would be unable to utilize the standpipes without either borrowing extras from the La Pine Fire Department or by first going to the PPWC office. Replacing the standpipes with standard fire hydrants would allow them to draw water without delay for firefighting efforts involving multiple responders.

The Insurance Services Office (ISO) rates areas for fire risk on a scale of 1-10. One is the best and ten is the worst. Ponderosa Pines has an ISO rating for fire protection which is posted on their website. The addition of fire hydrants would likely result in a lowering of the ISO rating for Ponderosa Pines, and possibly a lowering of residents cost for homeowners insurance. Individual homeowners should consult their insurance agents for the exact impacts.

D. Projected Demand and Storage at Buildout.

Based on past trends in population and growth, the annual demand at full buildout has been projected. In the year 2029, when full buildout is expected, the annual demand for Ponderosa Pines is anticipated to be 43,000,000 gallons. During times of peak water usage the flow rates are projected to be as high as 500 gpm. Supporting calculations are included in Appendix J.

Water storage requirements at buildout have also been calculated. A total storage capacity of 346,750 gallons is recommended to meet operational, fire flow, and reserve requirements. Calculation of the recommended storage is shown in Table 1.

Maximum Daily Use	250	gpcd
Buildout Population	980	
Max. Daily Demand	**245,000**	**gal.**
Fire Protection Storage		
Fire Flow Requirement	270	gpm
Duration	2	hr.
Total Fire Protection Storage	**32,400**	**gal.**
Reserve Storage	**277,400**	**gal.**
Safety Factor	1.25	
Recommended Storage at Buildout	**346,750**	**gal.**

Table 1-Storage Requirements

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III. EXISTING FACILITIES

A. System Inventory

Water for Ponderosa Pines is supplied by two wells, one that feeds directly into the distribution system, and one that pumps to an AST. Water is distributed to users via a network of PVC pipes waterlines ranging 2-8 inches in diameter. The pipes are looped throughout the community and valved so that specific sections can be shut down without disruption of service to the rest of the community. A general layout of the community's water system is included on the map found in Appendix I. Detailed descriptions of the existing facilities are included in the following sections.

1. Wells

Two wells, identified simply as Well #1 and Well #2, supply all water for the system and operate under three water right permits that allow up to 1.53 cfs (688 gpm) to be pumped. A description of each well is given below.

a. Well #1

Well #1 was drilled in 1970. It has a six-inch diameter and a total depth of 232 feet. The static water level is 90 feet below the ground surface. Well #1 houses a 9 stage Jacuzzi submersible vertical turbine pump powered by a 25 hp motor that pumps water to the surface. The pump operates at 1760 rpm, and is capable of an output of 150 gpm at a total dynamic head of 115 feet.

Well #1 operates under two water rights permits (G-6799 and G-8502) that were granted in 1976 and 1979. Permit G-6799 allows for 0.33 cfs (148 gpm) to be used in the original development and the first addition. The second permit allows for an additional 150 gpm to be used for the 2nd-4th additions. The original permits called for completion by 1977 and 2000. However, both permits have been extended to 2024.

Well #1 currently serves as a backup source for Well #2, and as a supplemental source of water. A copy of the well log, water rights permits, and pump data are included in Appendix D.

b. Well #2

Well #2 was drilled in 1979. It has a 10 inch diameter with a total depth of 403 feet. The static water level is 78 feet below the ground surface. This level has remained constant since the time the well was drilled. Well #2 houses a Johnston six stage submersible vertical turbine pump powered by a 20 hp motor. The pump operates at 3450 rpm, and is capable of an output of 510 gpm at a total dynamic head of 144 feet.

Well #2 operates under a water right permit that was granted in 1979. It allows up to 0.87 cfs to be drawn which may be used throughout the entire community. The permit called for completion by 1981. However, the completion date has been extended to 2027.

Well #2 serves as the primary source throughout the year. Copies of the water well report, water rights permit and pump data are included in Appendix E.

2. Storage Tank

Water is stored in a single aboveground tank. It was constructed in 1997 to address the need for additional storage due to resulting from the increased population within the development. The tank is a 61.5-foot diameter bolted, glass fused-to-steel tank with a maximum storage capacity of 428,000 gallons. Currently, the well pump controls are set to use approximately 345,000 gallons. The storage tank is fed by Well #2. At this time, there is no piping to allow the tank to be fed by Well #1.

Additional information on the tank is included in Appendix F.

3. Booster Pump Station

A booster station consisting of a bank of three pumps operating identified simply as Pumps #1, #2, and #3 draws water from the storage tank to pressurize the distribution system. Pump #1 is a 3 hp Berkeley BVM8-40 that operates at 3450 rpm and functions as the lead pump. It runs full-time and supplies water to the community during periods of low use. Pumps #2 and #3 are 15 hp Cornell 2W centrifugal pumps with 7 inch impellers that operate at 3,530 rpm. Pump #2 turns on when demands exceed what can be supplied by Pump #1 alone. Pump #3 turns on when demands exceed what can be supplied by Pumps #1 and #2.

Additional information on the pumps is included in Appendix G.

4. Distribution System

The distribution system consists of a network of 2, 4, 6, and 8-inch ASTM D-2241, Class 160 PVC pipe looped throughout the development. The approximate quantities of each size are given below.

Size	Total Length, ft.
2	600
4	21,100
6	41,000
8	300

Individual lots are served through 1" service connections. All occupied lots are metered, but the meter reading systems have been failing over the years so that only 120 currently work. Back flow prevention devices are also installed on all occupied lots and provide protection against cross-connections.

B. Maintenance and Upgrades

During the past 40 years of its existence, there have been few issues with the maintenance and operation of the Ponderosa Pines water system. Upgrades have been made as needed to address the needs of the development. Generally these have included replacement and repairs to the pumps, construction of the storage tank, and the addition of meters and backflow devices.

IV. WATER QUALITY AND REGULATORY REQUIREMENTS

A. Safe Drinking Water Act

As part of the Safe Drinking Water Act of 1986, the EPA set maximum levels for 83 compounds plus an additional 25 every three years thereafter. The Safe Drinking Water Act is administered in Oregon through the OHD as described in ORS 448.119-285, 454.235, 255, and 757.005. These statutes give OHD authority to require testing and monitoring of water intended for public use. Ponderosa Pines has complied with OHD requirements and regularly tests its water. Water has been found to be of excellent quality. No contaminants have been found in significant quantities despite the fact that there are no disinfection facilities. Copies of the most recent test results are included in Appendix H.

B. Wellhead Protection

With the passage of the Groundwater Act of 1989, the state began taking steps to help ensure the ongoing quality of groundwater resources. In response, DEQ and OHD, together with a citizens advisory committee, have begun an effort to increase public awareness and develop rules for voluntary wellhead protection programs (WHP). These programs may be initiated by any Responsible Management Authority (RMA). RMA's may include:

- Public Water Systems
- Counties
- Special Districts
- Indian Tribes
- The State/Federal Government

Initiation of a voluntary wellhead protection program involves the following eight steps.

The RMA contacts DEQ or OHD and sets up a workshop or meeting for an introduction to wellhead protection.

- The RMA identifies/cooperates with other RMA's and assembles a Local WHP Advisory Team to include representatives from the various interests and local communities potentially affected by the WHP.

- RMA's or their consultant conduct a DELINEATION of WHP area and gains sign off from OHD.

- The Team solicits volunteers as necessary and performs INVENTORY using technical assistance from DEQ.

- The Team develops the management approach using technical assistance from OHD.

- RMA's develop a CONTINGENCY PLAN using technical assistance from OHD.

- RMA's develop a plan describing procedures for any NEW WELLS (due to loss or growth) using

technical assistance from OHD and the Oregon Water Resources Department (WRD).

- RMA's assemble and submit a written plan of action and obtain certification from DEQ.

Incentives for the development of a certified wellhead protection plan include:

- The confidence that the plan implemented will have a positive impact on the RMA's source of drinking water.

- RMA's with certified wellhead protection plans will have their monitoring requirements for organic chemicals (VOC and SOC) reduced by 50%-from once in three years to once in six years. Further reductions may be possible through a use and susceptibility analysis through OHD.

- RMA's with an implemented/certified plan may have greater success in obtaining funding for upgrading their system because lenders will view a protected water system as less of a lending risk than an unprotected system.

- A state certified wellhead protection program will help ensure that all requirements associated with the Oregon Department of Conservation and Developments's land use regulations are addressed.

Although Ponderosa Pines has not implemented a wellhead protection program, further investigation is planned in order to obtain the above benefits. In the meantime, a 2002 sanitary survey conducted by OHA-Drinking Water Services found no deficiencies of note.

V. SYSTEM MODELING

A. Basis of Model

A computer based model of the Ponderosa Pines water system was created as an aid in evaluating system performance and identifying possible deficiencies. EPANET, a network analysis program produced by the USEPA, was used to perform this task. System performance was modeled over a 24-hour period. Two scenarios were considered: one for existing conditions, and one for buildout.

The distribution system geometry for the model was input from as-built data.

Water demand was modeled as a time dependent function based on the following formula:

$$Q(t) = \frac{DP\ f(t)}{1440}$$

where:
- $Q(t)$ = Flow required at any given time, gpm
- D = Average daily use, gpcd
- P = Population served, persons
- $f(t)$ = Diurnal use pattern

D, average daily use, was determined from past water use records. A value of 250 gpcd was chosen to reflect average daily use during the peak summertime months. This value was constant. See Appendix C for the determination of this value.

Populations for the two scenarios are based on the existing and buildout populations projected earlier. A population of 876 was used for the current population. The buildout population projected is 988. The diurnal use pattern is generally based on the diurnal pattern for a typical medium sized community water system as given by McGhee[1]. Modifications were made to reflect the peak demand of 290% of average daily flow and 10% of average flow at night experienced by Ponderosa Pines. The resulting diurnal flow pattern is shown in Figure 5.

Demands were distributed to specific junctions throughout the pipe network according to the number of lots served at various junctions. Demand for buildout was determined based on full occupancy of all lots within the community. Demand for existing conditions was based on only lots that are currently occupied. The existing conditions scenario was used to help calibrate the model to actual conditions before projecting how the system would perform under buildout conditions.

[1] McGhee; Water Supply and Sewerage; 6th Edition; p 139

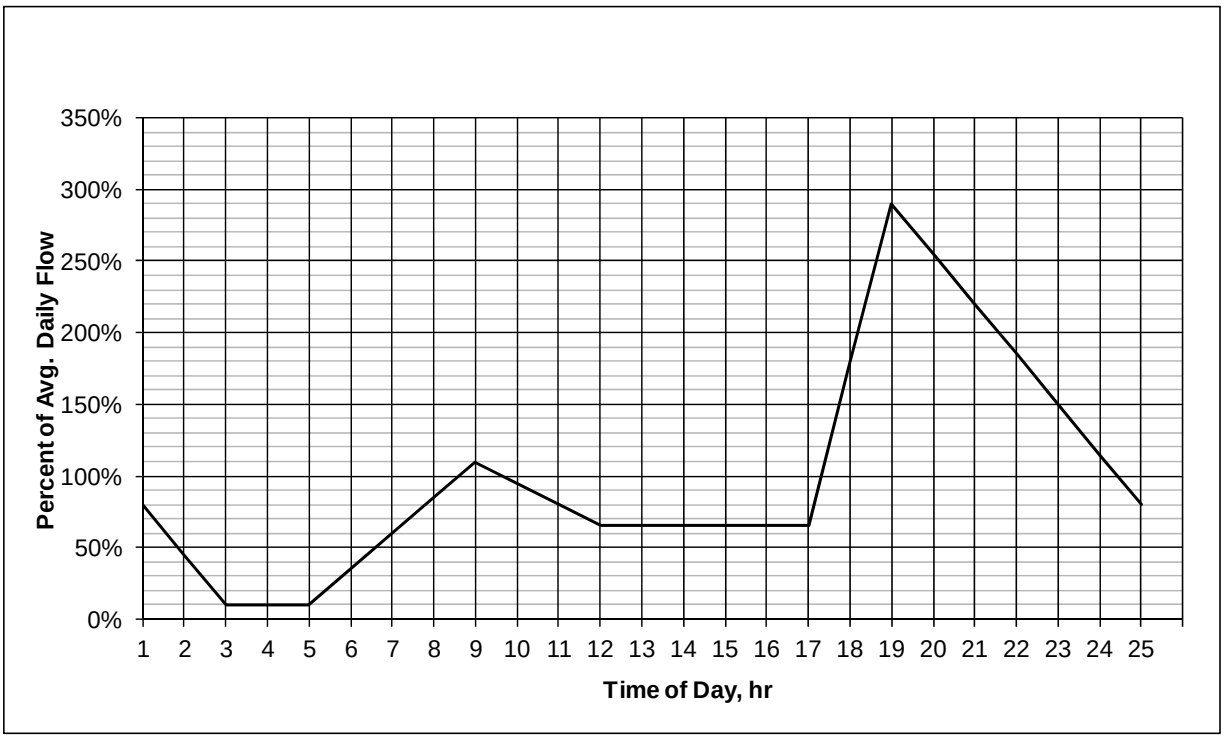

Figure 5-Diurnal Variations in Flow

B. Model Results

Modeling results for current and buildout conditions are included in Appendices I and J. The distribution system was analyzed to determine if adequate pressure and flow could be maintained throughout the system over a 24 hr period. The pumping and storage facilities were analyzed to verify that demand could be met without exceeding the maximum pumping rate allowed under existing water rights permits for the wells and without emptying the tank. Analysis results, as they pertain to specific system components are described in greater detail below.

1. Distribution System

Review of the distribution system results indicate that pressures in the range from 70-85 psi. and that flow velocities range from 0-3 ft/sec. Under peak conditions water is delivered to the development at a peak rate of 400 gpm. These pressures and rates are consistent with flows and pressures observed by the system operators under similar conditions. The model results do not indicate any points within the system were abnormal pressure or flow velocities exist.

In addition to a review of domestic flows, high flows were input to determine how much flow might be available for fire protection. Fireflow is generally defined as the maximum flow available without system pressures dropping below 20 psi. Based on this criterion, available fireflow will vary depending on time of day and location within the system. During times of high demand, the amount of water available for fireflow is lower. Likewise, at the northern extents of the system fireflows tend to be lower due to the fact that smaller pipes serve this part of the system. On the other hand, fireflows are higher near the booster pump station.

Projected fireflows at buildout range from a minimum of 250 gpm throughout the system during times of peak demand. During times of low demand, such as during the early morning hours, as much as 750 gpm may be available. These higher flows will be found in areas near Well #2 where larger pipes are found that are looped so flow can be delivered from two directions.

2. Storage Tanks

Included with the model results are a tank storage report. No deficiencies in storage are indicated in the model results.

3. Wells

The analysis results indicate that sufficient water can be drawn from Well #2 to meet daily demand. Although, at times, the demand exceeds the maximum instantaneous flow allowed under the Well #2 water right, sufficient storage exists to supplement flow from the well during those times.

C. System Deficiencies

A review of the existing conditions and modeling results indicate no deficiencies at this time. Furthermore, the model results for buildout conditions indicate that the existing system capacity will be sufficient to serve the community's needs at buildout. No expansion or upgrades of system capacity appears necessary to maintain continued operation of the system.

At the time of the last update, there were two concerns regarding the system. The first was a concern over the system's ability to meet future demands without drops in pressure or exceeding the amounts allowed under existing water rights. The second concern was over the remaining service life of the PVC pipe used in the system. However, based on declining use over the last 10 years, and on new research that has been done on the life of PVC pipe, these concerns are now reduced. Each of these is discussed in further detail below.

A third concern raised by the board of Ponderosa Pines Water Company concerns source redundancy. Since all water is currently supplied by Well #2, water service could be compromised if Well #2 operation were disrupted. This concern is also discussed below.

1. Water Use

As was seen in Figure 2, water use in the last 10 years has dropped. Although more people are now using less water, further improvements are possible. One way to further conserve water will be to charge users based on actual amounts of water used. Water users are currently charged based on a flat fee with an additional surcharge for using over 240,000 gallons per year. The drawback to this rate structure is that users with high water use (whether from leaks, high irrigation, or other causes) are being subsidized by users with low water use.

Adoption of a rate structure based on actual use determined by regular meter readings will incentivize individual conservation efforts. However, because of the time required for meter reading, this hasn't been feasible. Replacement of existing meters with meters equipped with

(AMR) systems will facilitate the adoption of a rate structure based on actual use.

2. PVC Pipe Service Life

A second area of concern for the water system is related to the age of the distribution system piping. The current system was installed in the 1970s and consists of ASTM D-2241 Class 160 PVC pipe. At the time of the last update, the service life of PVC pipe was thought to be approximately 30-40 years.

In the past 10 years, significant research into the long-term performance of PVC pipe has been conducted[2,3]. This research has concluded that with proper installation, PVC pipe can have a much longer service life than previously thought. With proper installation a service life of 50-100+ years is possible. Furthermore, based on the fact that installation problems normally appear within one year of installation, and Ponderosa Pine's system has been in the ground for more than 40 years, there are no problems with the installation of this system. Therefore, a service life in the range of 50-100+ years seems likely for Ponderosa Pine's system. For planning purposes, this master plan assumes a service life of 80 years.

3. Source Redundancy

Although Well #1 has historically been considered a backup source for the system, it has two drawbacks that make it impractical under many operating conditions. Because it feeds directly into the system, it lacks the ability to deliver water to the storage tank. In addition, the pump doesn't produce sufficient head to supply the system under high demand operating conditions. These factors limit the well's usefulness as currently configured.

Possible solutions include: installation of a pipe from Well #1 to the storage tank, construction of a second storage tank and booster station at Well #1, and drilling a third well closer to the storage tank. These alternatives together with a preferred alternative are discussed in Section VII.C.

With a third well located near the storage tank, with piping to the tank, there would be a backup source that could be easily brought online to supplement, or replace, water from Well #2. Water rights for the well could be obtained through an amendment to the existing water right permits for Wells #1 and #2. By amending existing water rights, the ability to pump up to 1.5 cfs (700 gpm) from any well, or combination of wells, would be feasible.

[2] *Long-Term Perfomance Prediction for PVC Pipes;* AWWARF; 2005

[3] *Long-Term Performance of PVC Pressure Pipes in a Large Rural Water Supply Scheme;* Stahmer, Whittle, 2001

VI. WATER CONSERVATION

Water conservation offers several benefits to Ponderosa Pines. The following are some of the benefits that may be obtained.

- Reductions in maintenance costs.
- A more stable supply.
- Reductions in electrical costs.

In addition, water systems with water conservation programs in place generally receive greater governmental or public support for future water projects.

Water conservation can take one of two forms: efforts by individual users, and PPWC efforts. Each is discussed briefly below.

A. Individual Efforts

Some savings in water use can be obtained by making residents aware of water use and recommending measures to help conserve. Some measures to consider are:

- Good irrigation practices including: watering only lawns, flower and vegetable gardens; and watering at night.
- Installation of water conserving fixtures such as shower heads or toilets.
- Taking fewer showers or smaller baths.
- Only washing full loads of dishes or clothes.
- Turning off the water when brushing teeth.
- Washing cars less, and turning the water off when washing the car.

Additional guidelines and tips are included in Appendix K.

B. Water Company Efforts

In addition to individual efforts, PPWC can encourage water conservation by two means. One is raise awareness among residents by taking steps such as distribution of materials regarding water conservation. A second means the water company's disposal is by adopting a rate structure based on the amount of water used as discussed above. However, implementation of this measure requires the system be fully metered.

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VII. CAPITAL IMPROVEMENTS

The following improvements are recommended for the Ponderosa Pines water system.

- Replace existing standpipes with fire hydrants.
- Install water sampling stations.
- Source augmentation (drilling a 3rd well).
- Line replacement.

Upgrading the existing meters to all AMR was also considered, but is not recommended. Each of these improvements is discussed in further detail below.

A. Automatic Meter Reading (AMR)

Meters with AMR capability have been installed on some service connections which facilitate meter readings. However, many have failed so that only 120 are now functional. Although the meters can still be read, replacement with more dependable units would greatly reduce the time needed to collect meter readings. This could be crucial if PPWC desired to adopt a monthly billing cycle instead of billing water users annually.

Inquiries were made to a number of local water companies to identify a system that will meet the water company's requirements. A system produced by Sensus will perform the functions needed to fully automate the task of meter reading. The system utilizes meters that are mounted with a short range radio transmitter that sends meter data to a handheld unit.

A cost estimate for installation of this system is given below.

Item	Description	Quantity	Units	Unit Cost	Total Cost
1	Mobilization	1	LS	$8,570	$8,570
2	Handheld Meter Reader and Office Software	1	LS	$12,000	$12,000
3	Electronic Meter w/Radio Tranceiver-Original Development	103	EA	$325	$33,475
4	Electronic Meter w/Radio Tranceiver-First Addition	85	EA	$325	$27,625
5	Electronic Meter w/Radio Tranceiver-Second Addition	108	EA	$325	$35,100
6	Electronic Meter w/Radio Tranceiver-Third Addition	62	EA	$325	$20,150
7	Electronic Meter w/Radio Tranceiver-Fourth Addition	132	EA	$325	$42,900
Total					**$179,820**
Note: Cost estimate covers occupied lots only. Vacant/unoccupied lots will cost add'l $325/lot±.					

Table 2-AMR Cost

Based on these costs, it seems unlikely that PPWC would recover this cost in labor savings within a time frame that would justify its cost. At this time, continuing the practice of billing water users on an annual basis is recommended.

B. Fire Hydrants

Water for firefighting is available through standpipes distributed throughout the community. The La Pine Fire Department has the fittings needed to connect to the standpipes. Although, in most cases, they will be the only responder to a fire, situations may arise where multiple responders will need to connect to the system. Replacing existing standpipes with fire hydrants will allow multiple agencies to connect to the water system to supply water for fire suppression.

The cost for a new hydrant is estimated at $3,500 per hydrant. Adding eight hydrants per year would cost $28,000 annually. Based on this schedule, there would be 24 hydrants interspersed throughout the community within 3 years. This would greatly improve coverage. A program of adding hydrants to the system at strategic locations is recommended.

A proposed layout of hydrant locations is included on the map in Appendix L.

C. Sampling Stations

Sampling stations are needed to improve the ease for water company personnel to collect samples for testing of water to satisfy State requirements. The cost for a sampling station is estimated at $850. Four are proposed to be installed in 2015 at a total estimated cost of $3,400.

Proposed locations shown on the map in Appendix L.

D. Source Augmentation

Although Well #2, together with the AST and booster pump station, is sufficient to fully supply the system, modifications to allow the system to be supplied by backup sources, like Well #1, will improve the reliability of the system and allow PPWC to respond to events such as a shutdown of Well #2 for maintenance.

Three alternatives were considered for augmenting the water source(s). These included:

- **Alternative 1**-Installation of a 6-inch main from Well #1 to the AST
- **Alternative 2**-Construction of a second AST and booster station at Well #1
- **Alternative 3**-Drill a third well in the vicinity of Well #2 that would discharge to the existing AST

Cost estimates for each are given below.

Item	Description	Quantity	Units	Unit Cost	Total Cost
1	Plans and Specifications	1	LS	$25,000	$25,000
2	Plan Approval by OHA	1	LS	$1,000	$1,000
3	Water Rights Amendment	1	LS	$4,000	$4,000
4	6" ASTM D2241-CL 160 PVC Waterline, (w/trenching, backfill, and fittings)	8,100	LF	$45	$364,500
5	Connections and Fittings	1	LS	$5,000	$5,000
Total					**$399,500**

Table 3-Alternative 1 Cost Estimate

Item	Description	Quantity	Units	Unit Cost	Total Cost
1	Plans and Specifications	1	LS	$25,000	$25,000
2	Plan Approval by OHA	1	LS	$1,000	$1,000
3	Water Rights Amendment	1	LS	$4,000	$4,000
4	Storage Tank	1	LS	$170,000	$170,000
5	New Pump Station	1	LS	$25,000	$25,000
Total					**$225,000**

Table 4-Alternative 2 Cost Estimate

Item	Description	Quantity	Units	Unit Cost	Total Cost
1	Plans and Specifications	1	LS	$25,000	$25,000
2	Plan Approval by OHA	1	LS	$1,000	$1,000
3	Water Rights Amendment	1	LS	$4,000	$4,000
4	Well Construction	1	LS	$140,000	$140,000
5	Pumps and Piping	1	LS	$25,000	$25,000
Total					**$170,000**

Table 5-Alternative 3 Cost Estimate

Based on estimated costs, drilling a third well appears to be the most cost effective means of improving source flexibility and dependability. This is recommended as the preferred alternative.

Although Wells #1 and #2 can last indefinitely with proper maintenance, an additional well would also provide flexibility for the system in events when a well (particularly Well #2) needs to be shut down for maintenance.

As discussed in Section V.C.3, water rights for an additional well can be obtained by amending existing water right permits for Wells #1 and #2.

E. Line Replacement

Replacement of existing waterlines assumes that existing waterlines sizes will be matched. In general, the four and six inch lines currently used will be replaced with new four and six inch pipe. Departures from this are recommended in the original development and 1st Addition where there is a significant amount of two and four inch pipe. Here, increasing from four to six inch pipe in sections that are looped so water can be delivered from different directions is recommended. In the 2nd-4th Additions, six inch pipe is used almost universally throughout the system; however, dead end lines could be reduced to four inch to save cost without sacrificing performance.

The estimated costs for line replacement in each addition are given in Tables 6-10. The estimates assumes full replacement of all system components including: fittings, valves, blow-off assemblies, fire hydrants, and service connections

Item	Description	Quantity	Units	Unit Cost	Total Cost
Original Development					
1	Mobilization	1	LS	$33,900	$33,900
2	Traffic Control	1	LS	$30,000	$30,000
3	6" ASTM D2241-CL 160 PVC Waterline, (w/trenching, backfill, and fittings)	8,400	LF	$45	$378,000
4	4" ASTM D2241-CL 160 PVC Waterline, (w/trenching, backfill, and fittings)	3,900	LF	$40	$156,000
5	2" ASTM D2241-CL 160 PVC Waterline, (w/trenching, backfill, and fittings)	2,700	LF	$35	$94,500
6	6" Gate Valves	25	EA	$500	$12,500
7	4" Gate Valves	10	EA	$400	$4,000
8	2" Gate Valves	10	EA	$300	$3,000
9	Service Connections	103	EA	$200	$20,600
10	2" Blowoff Assembly	15	EA	$500	$7,500
11	Fire Hydrant Assemblies	5	EA	$3,500	$17,500
12	Design and Construction Engineering	1	LS	$108,600	$108,600
Subtotal					**$866,100**
Contingency		20%			$173,220
Total Estimated Cost of Installation					**$1,039,320**

Table 6-Original Development Replacement

Item	Description	Quantity	Units	Unit Cost	Total Cost
First Addition					
1	Mobilization	1	LS	$22,800	$22,800
2	Traffic Control	1	LS	$19,600	$19,600
3	6" ASTM D2241-CL 160 PVC Waterline, (w/trenching, backfill, and fittings)	8,000	LF	$45	$360,000
4	4" ASTM D2241-CL 160 PVC Waterline, (w/trenching, backfill, and fittings)	800	LF	$40	$32,000
5	2" ASTM D2241-CL 160 PVC Waterline, (w/trenching, backfill, and fittings)	1,000	LF	$30	$30,000
6	6" Gate Valves	20	EA	$500	$10,000
7	4" Gate Valves	5	EA	$400	$2,000
8	2" Gate Valves	5	EA	$300	$1,500
9	Service Connections	85	EA	$200	$17,000
10	2" Blowoff Assembly	5	EA	$500	$2,500
11	Fire Hydrant Assemblies	4	EA	$3,500	$14,000
12	Design and Construction Engineering	1	LS	$76,800	$76,800
Subtotal					**$588,200**
Contingency		20%			$117,640
Total Estimated Cost of Installation					**$705,840**

Table 7-First Addition Replacement

Item	Description	Quantity	Units	Unit Cost	Total Cost
Second Addition					
1	Mobilization	1	LS	$32,100	$32,100
2	Traffic Control	1	LS	$27,600	$27,600
3	6" ASTM D2241-CL 160 PVC Waterline, (w/trenching, backfill, and fittings)	9,900	LF	$45	$445,500
4	4" ASTM D2241-CL 160 PVC Waterline, (w/trenching, backfill, and fittings)	3,900	LF	$40	$156,000
5	6" Gate Valves	20	EA	$500	$10,000
6	4" Gate Valves	5	EA	$400	$2,000
7	Service Connections	108	EA	$200	$21,600
8	2" Blowoff Assembly	10	EA	$500	$5,000
9	Fire Hydrant Assemblies	4	EA	$3,500	$14,000
10	Design and Construction Engineering	1	LS	$104,300	$104,300
Subtotal					**$818,100**
Contingency		20%			$163,620
Total Estimated Cost of Installation					**$981,720**

Table 8-Second Addition Replacement

Item	Description	Quantity	Units	Unit Cost	Total Cost
Third Addition					
1	Mobilization	1	LS	$12,400	$12,400
2	Traffic Control	1	LS	$10,800	$10,800
3	6" ASTM D2241-CL 160 PVC Waterline, (w/trenching, backfill, and fittings)	2,700	LF	$45	$121,500
4	4" ASTM D2241-CL 160 PVC Waterline, (w/trenching, backfill, and fittings)	2,700	LF	$40	$108,000
5	6" Gate Valves	5	EA	$500	$2,500
6	4" Gate Valves	10	EA	$400	$4,000
7	Service Connections	62	EA	$200	$12,400
8	2" Blowoff Assembly	10	EA	$500	$5,000
9	Fire Hydrant Assemblies	3	EA	$3,500	$10,500
10	48'Ø x 33'H Storage Tank	1	LS	$170,000	$170,000
11	Design and Construction Engineering	1	LS	$68,600	$68,600
Subtotal					**$525,700**
Contingency		20%			$105,140
Total Estimated Cost of Installation					**$630,840**

Table 9-Third Addition Replacement

Item	Description	Quantity	Units	Unit Cost	Total Cost
Fourth Addition					
1	Mobilization	1	LS	$45,900	$45,900
2	Traffic Control	1	LS	$39,400	$39,400
3	8" ASTM D2241-CL 160 PVC Waterline, (w/trenching, backfill, and fittings)	300	LF	$50	$15,000
4	6" ASTM D2241-CL 160 PVC Waterline, (w/trenching, backfill, and fittings)	12,700	LF	$45	$571,500
5	4" ASTM D2241-CL 160 PVC Waterline, (w/trenching, backfill, and fittings)	6,700	LF	$40	$268,000
6	8" Gate Valves	5	EA	$750	$3,750
7	6" Gate Valves	25	EA	$500	$12,500
8	4" Gate Valves	15	EA	$400	$6,000
9	Service Connections	136	EA	$200	$27,200
10	2" Blowoff Assembly	15	EA	$500	$7,500
11	Fire Hydrant Assemblies	8	EA	$3,500	$28,000
10	Design and Construction Engineering	1	LS	$148,400	$148,400
Subtotal					**$1,173,150**
Contingency		20%			$234,630
Total Estimated Cost of Installation					**$1,407,780**

Table 10-Fourth Addition Replacement

VIII. FINANCIAL PLANNING

To ensure the continued operation of the Ponderosa Pines Water Company on a sustainable basis, a balance needs to be achieved between:

- Costs for day-to-day operations,
- Costs for long range upgrades and improvements, and
- Revenue

Costs for daily operations tend to be based on needs that are immediate and short range. Long range improvements can be costs that are anticipated over a time horizon that may extend years, or even decades into the future. Revenues need to account for both. The following sections discuss the long term financial planning in terms of these components.

A. Operations and Maintenance

The Ponderosa Pines water system is operated by one manager and five part-time operators. The approximate annual cost for these positions and maintenance expenses are shown below in Table 11.

Annual Expenses	
Administrative	$5,618
Travel	$1,725
Taxes	$250
Insurance	$6,419
Legal and Professional	$14,700
Transportation	$2,286
Payroll	$34,605
Payroll Taxes	$5,311
Water Plant Distribution	$5,850
Water Quality Monitoring	$3,846
Utilities	$14,581
Total Annual Costs	**$95,191**

Table 11-Annual Operating Budget (2015)

These costs are paid on an ongoing basis directly through revenues charge to customers. No further planning is needed for these expenses beyond ensuring they are all accounted for in Ponderosa Pine's annual budget.

B. Future Improvements

Future improvements, like those discussed in Section VII, can also be funded directly as an ongoing cost. However, because they're frequently costs that either would result very large costs is funded directly, resulting in abrupt spikes in water rates, they are typically funded through loans and/or grants and paid off gradually over a number of years. Or, if the cost is known sufficiently in advance, a sinking fund can be created so funds are available for immediate funding when the actual cost is incurred. Any one of these approaches can be utilized. The following sections address funding for each of the

improvements described in Section VII, and recommend approaches to ensure they are funded in a manner that can be easily incorporated into Ponderosa Pines rate structure.

1. Automatic Meter Reading (AMR)

The cost of an AMR system would be difficult to fund through a one-time cost. However, if PPWC desired to do do, spreading the cost over a 10 year period would reduce cost of financing to a level that is in line with current rates. This would result in the following costs that would have to be charged to customers.

Present Cost	$179,820
Interest Rate	5.0%
No. Years	10
Annual Cost	$23,288
Service Conn.	490
Annual Cost/Service	**$47.53**
Monthly Cost/Service	**$3.96**

Table 12-AMR Funding

As discussed in previous sections, although an AMR system would result in time savings for meter readings, it appears unlikely that this upgrade would pay for itself in time savings. **For this reason, an AMR system is not recommended.**

2. Fire Hydrants

Installation of fire hydrants could be done over a period of years, and funded directly on an ongoing basis. Assuming eight hydrants per year, in 3 years there would be 24 hydrants interspersed throughout the community. The annual costs would be as shown below.

Cost/Hydrant	$3,500
Hydrants/yr	8
Annual Cost	$28,000
Service Conn.	490
Total Years	3
Annual Cost/Service	**$57.14**
Monthly Cost/Service	**$4.76**

Table 13-Hydant Funding

3. Sampling Stations

Installation of four sampling stations could be completed in one year and funded directly on an ongoing basis. Assuming a cost of $850/station the total cost would be $3,400.

4. Well #3

The cost of a new well is a one-time cost that will be funded from existing reserves. Replenishing the reserves over a 10 year period is recommended. Assuming a 2% annual inflation rate, the

following costs would have to be charged to customers.

Present Cost	$170,000
Inflation Rate	2.0%
No. Years	10
Annual Cost	$18,926
Service Conn.	490
Annual Cost/Service	**$38.62**
Monthly Cost/Service	**$3.22**

Table 14-Well #3 Funding

5. Line Replacement

Funding for waterline replacement can take place in a number of ways. Ponderosa Pines can wait until replacement is needed and then borrow funds that would be paid back over the years following. Assuming an 80 year service life, replacement would begin in the year 2050. Assuming a 2% rate of inflation, a 30 year payoff period, and an interest rate of 8%, the following costs to customers would be incurred at that time.

Phase	Year Installed	2014 Cost	Service Life, yr	Inflation Rate	Year Replaced	Replacement Cost	Interest Rate	Payoff Period	Annual Payment	Services	Monthly Cost/Ser.	Annual Cost/Ser.
Original Dev.	1970	$1,039,320	80	2.0%	2050	$2,078,525	8.0%	30	$184,630	490	$31.40	$376.80
First Addition	1970	$705,840	80	2.0%	2050	$1,411,602	8.0%	30	$125,389	490	$21.32	$255.90
Second Addition	1973	$981,720	80	2.0%	2053	$2,083,503	8.0%	30	$185,072	490	$31.47	$377.70
Third Addition	1977	$630,840	80	2.0%	2057	$1,449,194	8.0%	30	$128,728	490	$21.89	$262.71
Fourth Addition	1978	$1,407,780	80	2.0%	2058	$3,298,695	8.0%	30	$293,015	490	$49.83	$597.99
Total											**$155.92**	**$1,871.09**

Table 15-Line Replacement Future Payments

However, because of the extremely long time frame before existing waterlines will require replacement, Ponderosa Pines also has the opportunity to begin funding now. By charging users now and using the money to create a line replacement fund, replacement of existing waterlines can be fully funded by the time line replacement becomes necessary to do so. This funding alternative is given in Figure 18.

Phase	Year Installed	2014 Cost	Service Life, yr	Inflation Rate	Year Replaced	Replacement Cost	Interest Rate	Sinking Fund Ann. Payment	Services	Monthly Cost/Ser.	Annual Cost/Ser.
Original Dev.	1970	$1,039,320	80	2.0%	2050	$2,078,525	2.0%	$41,575	438	$7.91	$94.92
First Addition	1970	$705,840	80	2.0%	2050	$1,411,602	2.0%	$28,235	438	$5.37	$64.46
Second Addition	1973	$981,720	80	2.0%	2053	$2,083,503	2.0%	$37,129	438	$7.06	$84.77
Third Addition	1977	$630,840	80	2.0%	2057	$1,449,194	2.0%	$22,343	438	$4.25	$51.01
Fourth Addition	1978	$1,407,780	80	2.0%	2058	$3,298,695	2.0%	$49,117	438	$9.35	$112.14
Total								**$178,399**		**$33.94**	**$407.30**

Table 16-Line Replacement Sinking Fund

Other alternatives involving a partial funding now, or a surcharge based on a uniform gradient cost that increases at a constant rate (such as with the rate of inflation) are also possible, but these depict the impacts of waiting until replacement is needed, or beginning to set aside funds now.

6. Reserve Funds

In order to fund the above improvements, additional money would need to be budged in addition to the current operating budget. The annual budget needed to fund all the proposed capital improvements (including a sinking fund for future line replacement) is shown in Figure 19. Reserve amounts in this table have been broken into two categories. Short term improvements are those that are funded over the next ten years. Long term improvements are those that are planned to be completed more than ten years in the future.

Current Budget	**$95,191**
Reserve Amounts	
Short Term Improvements	
-Hydrants	$28,000
-Sampling Stations	$3,400
-Well #3	$18,926
Subtotal	**$50,326**
Long Term Improvements	
- Master Plan Updates (every ten years)	$1,400
-Line Replacement	$178,399
Subtotal	**$179,799**
Total	**$325,316**

Table 17-Annual Budget with Reserves

C. Revenue

Ponderosa Pines currently charges water users based on the following rate structure.

Item	Type	No. of Services	Annual Fee	Total Revenue
1	Full Time Occupancy	435	$218.83	$95,191
2	Reserves	490	$75	$36,750
Total Annual Revenue				**$131,941**

Table 18-Current Revenue (2015)

If all of the improvements listed above are to be funded beginning in 2015, approximately $327,000 in additional revenue will be required. To achieve this, the current rate structure could be revised as follows:

Item	Type	No. of Services	Annual Fee	Total Revenue
1	Full Time Occupancy	435	$218.83	$95,191
2	Short Term Reserves	490	$103	$50,470
3	Long Term Reserves	490	$370	$181,300
Total Annual Revenue				**$326,961**

Table 19-Alternative Revenue

Increasing short term reserves is recommended to fund the short term improvements. However, because of the impact of trying to fund long term improvements (most notably line replacement) further discussion within the community is recommended before taking action to attempt funding long term improvements at this time. The $370 long term reserve fee assumes full funding at the time line replacement in the year 2050 without the need to obtain financing in the form of loan(s). Because most of the residents will likely leave before this time, they would be funding someone else's infrastructure needs. Furthermore, if the existing system lasts longer than the 80-yr service life assumed, this situation would be further exacerbated.

One possibility is that once the projects to be funded by short term reserves are complete, residents could then roll those funds into a long term reserve fund to fund some of the cost for long term improvements. This would allow for some funding while leaving responsibility for most of the funding in the hands of future residents.

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Appendix A
Population Records

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Ponderosa Pines
Water Master Plan-2014 Update
Proj. #11137.002.01
Population Data

Residents/ 2

	Full Time		Part Time		Total	
Year	Lots	Residents	Lots	Residents	Lots	Residents
1987	184	368	50	100	234	468
1988	190	379	53	106	243	485
1989	195	390	56	112	251	502
1990	210	420	59	118	269	538
1991	225	450	62	124	287	574
1992	246	492	65	130	311	622
1993	253	506	68	136	321	642
1994	262	524	68	137	330	661
1995	271	541	69	138	340	679
1996	280	559	69	139	349	698
1997	288	577	70	139	358	716
1998	297	595	70	140	367	735
1999	306	612	71	141	377	753
2000	315	630	71	142	386	772
2001					390	779
2002					393	787
2003					397	794
2004					401	802
2005					405	809
2006					408	817
2007					412	824
2008					416	831
2009					419	839
2010					423	846
2011					427	854
2012					431	861
2013					434	869
2014	438	876			438	876
2029	490	980			490	980

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Appendix B
Water Use Records

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PONDEROSA PINES WATER CO. #400106

ANNUAL WATER USEAGE WELL #1 - 1993

MONTH

DAY	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC
1	0	0	0	0	41,000	43,000	129,000	152,000	240,000	391,000	0	0
2	0	0	0	0	66,000	264,000	62,000	168,000	121,000	0	0	0
3	0	0	0	0	25,000	90,000	115,000	178,000	98,000	0	0	0
4	0	0	0	0	27,000	245,000	115,000	154,000	130,000	0	0	0
5	0	0	0	0	55,000	264,000	115,000	177,000	590,000	0	0	0
6	0	0	0	0	1,000	236,000	230,000	149,000	7,000	0	0	0
7	0	0	0	0	308,000	154,000	99,000	146,000	1,000	0	0	0
8	0	0	0	0	0	182,000	195,000	140,000	14,000	0	0	0
9	0	0	0	0	0	65,000	55,000	158,000	3,000	0	0	0
10	0	0	0	0	0	87,000	207,000	149,000	37,000	0	0	0
11	0	0	0	0	0	79,000	72,000	148,000	0	0	0	0
12	0	0	0	0	0	150,000	201,000	141,000	0	0	0	0
13	0	0	0	0	0	0	131,000	144,000	0	0	0	0
14	0	0	0	0	0	0	105,000	80,000	0	0	0	0
15	0	0	0	0	0	0	107,000	0	0	0	0	0
16	0	0	0	0	0	0	118,000	0	0	0	0	0
17	0	0	0	0	0	0	122,000	0	0	0	0	0
18	0	0	0	0	0	0	147,000	3,000	0	0	0	0
19	0	0	0	0	0	0	0	21,000	0	0	0	0
20	0	0	0	0	0	0	44,000	0	0	0	0	0
21	0	0	0	0	0	0	27,000	0	0	0	0	0
22	0	0	0	0	0	0	0	0	0	0	0	0
23	0	0	0	0	0	0	0	0	0	0	0	0
24	0	0	0	0	0	0	9,000	0	0	0	0	0
25	0	0	0	0	0	0	27,000	0	0	0	0	0
26	0	0	0	0	0	0	162,000	31,000	0	0	0	0
27	0	0	0	0	0	0	175,000	87,000	0	0	0	0
28	0	0	0	0	0	0	130,000	42,000	0	0	0	0
29	0		0	0	0	0	99,000	34,000	0	0	0	0
30	0		0		0	0	148,000	0		0	0	0
31	0				0					0		0
TOTAL	**0**	**0**	**0**	**0**	**523,000**	**1,859,000**	**3,146,000**	**2,302,000**	**1,241,000**	**391,000**	**0**	**0**

PONDEROSA PINES WATER CO. #400106

ANNUAL WATER USEAGE WELL #2 - 1993

	MONTH											
DAY	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC
1	66,000	58,000	46,000	68,000	163,000	79,000	214,000	199,000	118,000	167,500	69,000	70,000
2	54,000	69,000	44,000	46,000	18,000	91,000	219,000	271,000	303,000	167,500	46,000	59,000
3	44,000	68,000	69,000	68,000	84,000	92,000	204,000	211,000	196,000	140,000	69,000	75,000
4	51,000	69,000	138,000	115,000	91,000	91,000	204,000	257,000	159,000	138,000	70,000	62,000
5	44,000	46,000	46,000	70,000	92,000	73,000	204,000	224,000	200,000	140,000	46,000	62,000
6	43,000	61,000	45,000	70,000	104,000	205,000	241,000	216,000	215,000	168,000	138,000	62,000
7	65,000	61,000	69,000	45,000	45,000	116,000	189,000	353,000	203,000	105,000	69,000	69,000
8	66,000	61,000	46,000	66,000	119,000	146,000	202,000	147,000	103,000	99,000	83,000	69,000
9	55,000	93,000	23,000	60,000	119,000	144,000	271,000	213,000	150,000	94,000	83,000	69,000
10	55,000	70,000	57,000	61,000	155,000	110,000	215,000	160,000	249,000	73,000	77,000	69,000
11	66,000	69,000	59,000	56,000	216,000	112,000	215,000	178,000	177,000	93,000	65,000	52,000
12	44,000	126,000	70,000	61,000	107,000	166,000	215,000	162,000	411,000	70,000	45,000	78,000
13	50,000	101,000	69,000	45,000	134,000	202,000	185,000	160,000	160,000	71,000	162,000	78,000
14	62,000	116,000	140,000	44,000	182,000	174,000	185,000	172,000	162,000	50,000	46,000	70,000
15	56,000	138,000	68,000	55,000	378,000	172,000	217,000	172,000	135,000	68,000	69,000	69,000
16	60,000	127,000	68,000	60,000	215,000	205,000	156,000	170,000	140,000	69,000	68,000	69,000
17	61,000	127,000	70,000	50,000	157,000	143,000	182,000	120,000	138,000	70,000	45,000	69,000
18	60,000	100,000	50,000	50,000	178,000	275,000	273,000	150,000	140,000	22,000	61,000	69,000
19	68,000	78,000	56,000	84,000	92,000	425,000	184,000	153,000	134,000	67,000	61,000	65,000
20	48,000	63,000	70,000	49,000	115,000	172,000	184,000	85,000	109,000	93,000	61,000	71,000
21	68,000	138,000	83,000	66,000	380,000	178,000	186,000	69,000	128,000	49,000	56,000	71,000
22	70,000	41,000	57,000	66,000	121,000	181,000	191,000	145,000	128,000	66,000	55,000	139,000
23	70,000	57,000	69,000	65,000	116,000	257,000	127,000	126,000	134,000	70,000	90,000	60,000
24	46,000	56,000	70,000	136,000	94,000	302,000	130,000	140,000	140,000	70,000	60,000	65,000
25	68,000	56,000	58,000	57,000	95,000	200,000	228,000	149000	160,000	70,000	61,000	129,000
26	68,000	50,000	57,000	56,000	158,000	219,000	216,000	130,000	170,000	58,000	95,000	70,000
27	54,000	50,000	59,000	98,000	158,000	192,000	255,000	231,000	159,000	57,000	96,000	70,000
28	68,000		60,000	92,000		245,000	230,000	202,000	134,000	70,000		70,000
29	56,000		60,000			214,000	199,000	204,000	134,000	70,000		70,000
30	60,000		46,000			219,000	176,000	202,000		71,000		
31	55,000						181,000	220,000		71,000		
TOTAL	**1,801,000**	**2,149,000**	**1,922,000**	**1,859,000**	**3,886,000**	**5,400,000**	**6,278,000**	**5,591,000**	**4,889,000**	**2,687,000**	**1,946,000**	**2,100,000**

COMBINED TOTAL	**1,801,000**	**2,149,000**	**1,922,000**	**1,859,000**	**4,409,000**	**7,259,000**	**9,424,000**	**7,893,000**	**6,130,000**	**3,078,000**	**1,946,000**	**2,100,000**

PONDEROSA PINES WATER CO. #400106

ANNUAL WATER USEAGE WELL #1 - 1994

MONTH

DAY	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC
1	0	77,100	100	0	6,000	8,000	170,000	118,000	19,000	391,000	0	0
2	0	0	97,000	0	6,000	33,000	117,000	113,000	8,000	0	0	0
3	0	0	17,000	12,000	3,000	37,000	116,000	76,000	8,000	0	0	0
4	0	0	21,000	6,000	0	50,000	44,000	100,000	5,000	0	0	0
5	0	0	45,000	20,000	0	42,000	33,000	56,000	5,000	0	0	0
6	0	0	29,000	16,000	0	0	10,000	70,000	11,000	0	0	0
7	0	0	15,000	6,000	53,000	0	18,000	70,000	7,000	0	0	0
8	0	0	37,000	40,000	99,000	5,000	180,000	66,000	27,000	0	0	0
9	0	0	41,000	24,000	83,000	61,000	176,000	66,000	24,000	0	0	0
10	0	0	37,000	3,000	143,000	192,000	183,000	77,000	10,000	0	0	0
11	0	0	41,000	3,000	109,000	138,000	146,000	56,000	0	0	0	0
12	0	0	43,000	0	79,000	181,000	170,000	48,000	0	0	0	0
13	0	0	40,000	1,000	97,000	14,000	60,000	75,000	14,000	0	0	0
14	0	0	104	0	41,000	0	1,000	70,000	14,000	0	0	0
15	0	0	38,000	0	7,000	32,000	46,000	57,000	53,000	0	0	0
16	0	0	44,000	0	0	127,000	75,000	94,000	30,000	0	0	0
17	0	0	39,000	0	0	80,000	26,000	52,000	40,000	0	0	0
18	0	0	38,000	0	1,000	83,000	43,000	80,000	16,000	0	0	0
19	0	0	46,000	0	36,000	100,000	76,000	41,000	9,000	0	0	0
20	0	0	58,000	0	139,000	155,000	8,000	65,000	6,000	0	0	0
21	0	0	52,000	0	140,000	165,000	90,000	45,000	4,000	0	0	0
22	0	0	63,000	0	61,000	127,000	71,000	29,000	4,000	0	0	0
23	0	0	54,000	0	89,000	136,000	82,000	53,000	5,000	0	0	0
24	0	0	57,000	0	32,000	131,000	84,000	60,000	2,000	0	0	0
25	0	0	56,000	0	0	122,000	75,000	57000	1,000	0	0	0
26	0	0	63,000	0	45,000	101,000	79,000	66,000	1,000	0	0	0
27	0	0	55,000	0	114,000	180,000	83,000	74,000	0	0	0	0
28	0	0	49,000	0	77,000	84,000	74,000	72,000	0	0	0	0
29	0		47,000	0	0	89,000	75,000	73,000	0	0	0	0
30	0		0		0	87,000	79,000	63,000	0	0	0	0
31	0							66,000		0		0
TOTAL	**0**	**77,100**	**1,222,204**	**131,000**	**1,460,000**	**2,560,000**	**2,490,000**	**2,108,000**	**323,000**	**391,000**	**0**	**0**

PONDEROSA PINES WATER CO. #400106

ANNUAL WATER USEAGE WELL #2 - 1994

MONTH

DAY	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC
1	70,000	45,000	74,000	45,000	105,000	82,000	234,000	39,000	126,600	85,250	81,200	187,700
2	82,000	45,000	43,000	72,000	172,000	210,000	229,000	229,000	158,000	85,250	156,580	67,000
3	82,000	44,000	102,000	65,000	106,000	210,000	193,000	290,000	154,600	70,100	94,400	183,200
4	70,000	46,000	0	60,000	106,000	176,000	188,000	238,000	132,800	108,700	78,600	99,300
5	64,000	20,000	0	61,000	68,000	103,000	384,000	236,000	187,000	96,000	130,000	80,800
6	51,000	110,000	0	47,000	110,000	149,000	322,000	471,000	188,400	86,900	82,200	97,900
7	70,000	43,000	0	45,000	260,000	130,000	401,000	229,000	136,500	86,950	107,500	89,700
8	66,000	64,000	0	54,000	150,000	120,000	294,000	226,900	203,900	68,450	87,200	72,800
9	70,000	64,000	0	56,000	135,000	210,000	347,000	198,600	102,000	208,400	70,800	180,100
10	69,000	87,000	0	54,000	223,000	182,000	201,000	137,500	104,600	120,400	57,600	186,100
11	69,000	87,000	0	70,000	181,000	187,000	177,000	199,400	90,600	85,900	87,300	98,200
12	69,000	74,000	0	73,000	206,000	202,000	363,000	169,000	97,175	59,500	103,200	91,800
13	69,000	76,000	0	72,000	199,000	164,000	110,000	169,800	101,000	87,400	81,600	60,500
14	69,000	83,000	0	73,000	143,000	177,000	387,000	160,000	102,250	104,200	82,200	202,100
15	69,000	83,000	0	110,000	150,000	175,000	212,000	183,200	98,100	186,100	88,900	102,300
16	69,000	93,000	0	95,000	156,000	170,000	336,000	146,400	104,200	100,700	86,400	96,900
17	57,000	55,000	0	121,000	131,000	170,000	183,000	146,400	141,900	68,400	180,600	104,700
18	54,000	90,000	0	158,000	155,000	117,000	411,000	160,100	142,000	89,800	84,920	77,000
19	43,000	92,000	0	142,000	101,000	229,000	172,000	187,737	141,900	94,100	93,680	107,050
20	38,000	71,000	0	158,000	127,000	230,000	224,000	182,000	142,000	81,200	70,100	106,500
21	42,000	72,000	0	130,000	101,000	230,000	265,000	50,000	140,000	92,600	168,300	107,700
22	44,000	96,000	0	142,000	136,000	247,000	313,000	49,634	182,800	92,600	84,600	86,100
23	42,000	96,000	0	109,000	156,000	244,000	272,000	185,100	182,800	94,400	78,000	104,500
24	43,000	79,000	0	110,000	212,000	223,000	226,000	164,000	193,100	84,000	82,400	100,000
25	21,000	79,000	0	108,000	274,000	248,000	226,000	141500	180,000	98,900	169,800	86,100
26	45,000	79,000	0	76,000	195,000	233,000	312,000	152,000	181,000	92,700	0	0
27	45,000	0	0	52,000	160,000	255,000	251,000	156,600	181,266	84,500	0	0
28	44,000	0	0	105,000	212,000	164,000	267,000	0	109,000	92,300	0	0
29	23,000	0		109,000	210,000	273,000	265,000	0	70,600	95,600	0	0
30	43,000	0		100,000	215,000	297,000	264,000	0	89,500	0	0	0
31	43,000	0			182,000		254,000	0	0			0
TOTAL	**1,735,000**	**1,873,000**	**219,000**	**2,672,000**	**5,037,000**	**5,807,000**	**8,283,000**	**4,897,871**	**4,165,591**	**2,801,300**	**2,488,080**	**2,776,050**

COMBINED TOTAL	**1,735,000**	**1,950,100**	**1,441,204**	**2,803,000**	**6,497,000**	**8,367,000**	**10,773,000**	**7,005,871**	**4,488,591**	**3,192,300**	**2,488,080**	**2,776,050**

PONDEROSA PINES WATER CO. #400106

ANNUAL WATER USEAGE WELL #1 - 1995

	MONTH											
DAY	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC
1	0	0	0	0	27,000	15,000	80,000	34,000	59,000	0	0	0
2	0	0	0	0	135,000	30,000	66,000	84,000	30,000	0	0	0
3	0	0	0	0	123,000	9,000	100,000	87,000	15,000	0	0	0
4	0	0	0	0	96,000	8,000	24,000	90,000	15,000	0	0	0
5	0	0	0	0	0	29,000	113,000	122,000	40,000	0	0	0
6	0	0	0	0	0	38,000	82,000	44,000	41,000	0	0	0
7	0	0	0	0	0	37,000	1,000	29,000	25,000	0	0	0
8	0	0	0	0	0	56,000	36,000	6,000	18,000	0	0	0
9	0	0	0	0	0	47,000	1,900	66,000	12,000	0	0	0
10	0	0	0	0	0	7,000	39,000	55,000	78,000	0	0	0
11	0	0	0	0	0	3,000	68,000	33,000	66,000	0	0	0
12	0	0	0	0	0	6,400	84,000	105,000	17,000	0	0	0
13	0	0	0	0	0	116,000	49,000	76,000	10,000	0	0	0
14	0	0	0	0	0	69,000	7,000	63,000	13,000	0	0	0
15	0	0	0	0	0	73,000	2,000	80,000	14,000	0	0	0
16	0	0	0	0	0	65,000	24,000	48,000	6,000	0	0	0
17	0	0	0	0	0	58,000	11,000	11,000	26,000	0	0	0
18	0	0	0	0	0	83,000	75,000	14,000	38,000	0	0	0
19	0	0	0	0	0	129,000	55,000	13,000	29,000	0	0	0
20	0	0	0	0	0	0	23,000	51,000	21,000	0	0	0
21	0	0	0	0	0	0	70,000	7,000	16,000	0	0	0
22	0	0	0	0	0	0	51,000	29,000	11,000	0	0	0
23	0	0	0	0	0	0	37,000	49,000	9,000	0	0	0
24	0	0	0	0	0	0	47,000	14,000	7,000	0	0	0
25	0	0	0	0	0	0	70,000	62000	4,000	0	0	0
26	0	0	0	0	0	0	0	17,000	0	0	0	0
27	0	0	0	0	0	0	0	33,000	0	0	0	0
28	0	0	0	0	0	0	0	17,000	0	0	0	0
29	0		0	0	0	0	0	52,000	0	0	0	0
30	0		0	0	0	0	0	34,000	0	0	0	0
31	0		0		0		0			0		0
TOTAL	**0**	**0**	**0**	**0**	**381,000**	**878,400**	**1,215,900**	**1,425,000**	**620,000**	**0**	**0**	**0**

PONDEROSA PINES WATER CO. #400106

ANNUAL WATER USEAGE WELL #2 - 1995

MONTH

DAY	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC
1	198,000	91,000	75,100	91,900	101,000	89,800	217,300	190,700	147,000	108,000	64,000	79,500
2	116,200	85,600	86,700	189,100	67,500	90,900	120,600	178,500	195,000	110,900	63,000	67,100
3	199,900	88,700	85,100	98,800	59,100	87,250	229,900	178,800	196,000	106,000	80,600	49,100
4	79,100	94,500	79,300	176,500	98,800	87,250	183,500	178,760	186,150	45,000	80,600	85,000
5	90,000	90,200	79,300	95,100	83,100	93,800	227,900	183,000	186,150	95,500	60,000	70,000
6	91,000	89,400	69,900	90,700	89,200	81,900	128,100	184,000	118,000	79,400	64,000	67,200
7	95,330	84,400	130,350	172,100	189,500	87,100	85,000	125,900	119,100	63,400	73,000	57,000
8	194,300	87,600	130,350	98,500	114,500	146,500	86,000	106,900	118,000	63,400	64,000	57,000
9	107,700	87,500	48,500	85,100	96,300	137,700	82,000	107,500	120,000	69,400	65,000	65,000
10	107,700	88,600	48,500	95,800	91,100	205,100	91,800	283,900	122,000	69,400	66,600	72,000
11	93,200	99,110	48,500	99,600	78,300	81,000	93,100	104,700	103,100	84,300	55,000	69,000
12	98,700	92,200	86,800	75,300	90,500	88,600	79,850	165,100	192,200	84,000	54,000	68,000
13	98,900	85,700	94,900	165,400	90,500	92,700	80,000	236,100	192,000	85,100	58,000	72,000
14	99,700	88,700	77,800	108,200	97,700	92,700	85,100	79,700	193,400	66,850	61,000	73,100
15	99,700	91,000	73,800	85,900	76,700	251,800	123,600	192,700	166,100	67,000	55,000	72,000
16	97,800	89,800	85,200	93,500	93,300	87,100	192,200	139,800	150,900	67,500	55,000	54,400
17	95,100	70,300	99,200	91,000	82,800	77,800	104,600	78,100	162,900	66,850	56,000	72,000
18	100,800	70,300	84,000	92,400	132,100	105,200	174,000	96,900	156,900	58,250	55,000	72,400
19	99,400	90,600	202,000	106,000	122,000	91,300	89,300	147,300	130,000	58,250	44,000	56,800
20	99,100	94,600	95,300	92,400	291,900	64,000	92,100	332,300	131,500	66,400	51,600	60,000
21	104,700	91,300	176,900	82,400	160,300	191,100	87,900	168,650	100,750	64,000	62,000	61,000
22	99,700	92,000	107,400	93,500	90,400	203,150	175,700	168,650	100,750	90,000	63,500	60,500
23	102,000	68,500	93,530	142,000	305,600	203,150	159,000	206,400	131,111	56,400	55,900	63,600
24	96,500	101,500	194,800	85,000	183,000	199,000	159,100	187,600	96,000	61,000	60,000	67,000
25	102,500	82,300	185,200	86,000	239,000	185,500	189,300	240100	97,000	70,200	61,000	48,300
26	98,400	182,500	191,800	0	185,990	175,200	201,100	238,000	96,400	57,400	62,000	81,800
27	100,600	86,000	0	0	138,985	0	145,600	322,600	82,100	62,100	56,500	76,600
28	101,100		0	0	190,710	0	123,500	131,100	79,900	58,200	56,000	78,000
29	0		0	0	123,800	0	180,800	118,000	105,900	57,150	65,200	79,000
30	0		0	0	0	0	180,800	146,200	109,500	58,000	79,500	78,750
31	0		0		0		341,503	0	0		0	79,600
TOTAL	**3,067,130**	**2,463,910**	**2,730,230**	**2,692,200**	**3,763,685**	**3,296,600**	**4,510,253**	**5,217,960**	**4,085,811**	**2,149,350**	**1,847,000**	**2,112,750**

COMBINED TOTAL	**3,067,130**	**2,463,910**	**2,730,230**	**2,692,200**	**4,144,685**	**4,175,000**	**5,726,153**	**6,642,960**	**4,705,811**	**2,149,350**	**1,847,000**	**2,112,750**

PONDEROSA PINES WATER CO. #400106

ANNUAL WATER USEAGE WELL #1 - 1996

MONTH

DAY	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC
1												
2												
3												
4												
5												
6												
7												
8												
9												
10												
11												
12												
13												
14						**NO DATA**						
15												
16												
17												
18												
19												
20												
21												
22												
23												
24												
25												
26												
27												
28												
29												
30												
31												
TOTAL	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

PONDEROSA PINES WATER CO. #400106

ANNUAL WATER USEAGE WELL #2 - 1996

MONTH

DAY	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC
1	71,700	81,500	80,600	66,000	90,000	100,100	248,300	238,500	170,700	87,800	54,600	55,300
2	69,700	71,000	80,600	72,000	87,000	191,200	201,600	241,100	170,700	80,400	47,400	55,300
3	66,000	72,000	76,500	71,000	84,000	151,900	236,300	171,500	60,000	96,900	70,500	51,700
4	67,000	71,000	76,500	73,000	88,000	139,000	235,000	203,400	45,000	77,700	43,800	68,200
5	68,400	73,000	76,500	77,600	91,000	153,800	148,700	208,000	43,000	130,000	54,900	68,200
6	57,800	90,400	62,700	77,000	98,900	151,000	283,800	168,000	48,000	138,500	57,200	131,700
7	58,000	77,000	62,700	170,700	89,600	142,600	283,800	336,600	34,600	82,500	55,000	145,700
8	57,000	78,500	71,000	93,600	93,600	138,000	235,800	300,900	34,600	75,100	58,400	129,700
9	70,000	70,200	69,000	81,000	103,800	187,000	286,500	333,800	199,500	56,800	116,800	67,500
10	68,000	60,000	413,700	81,200	110,500	122,500	134,800	140,000	192,800	82,800	59,067	67,000
11	69,000	69,000	66,800	69,700	151,000	107,600	259,400	225,300	93,500	86,300	59,000	68,000
12	67,000	68,000	133,400	65,300	161,000	188,400	218,900	206,300	84,000	83,400	59,000	67,500
13	66,000	97,300	66,100	154,200	90,000	263,500	236,450	157,200	82,800	72,900	65,000	67,500
14	66,500	76,450	98,100	68,200	74,900	203,500	236,440	179,000	84,000	59,500	65,000	129,900
15	67,500	76,450	72,850	84,900	64,100	196,000	261,000	100,000	42,400	78,800	65,000	66,000
16	71,000	62,500	72,850	65,800	90,600	197,000	148,000	210,400	82,600	75,200	54,600	66,000
17	72,000	75,000	72,000	65,000	96,400	103,300	78,700	115,000	68,000	58,900	36,500	66,500
18	70,000	76,000	177,800	65,250	80,500	103,300	97,600	135,000	69,800	87,200	67,300	66,733
19	63,300	74,500	84,100	68,000	82,000	210,200	210,300	256,900	76,900	47,700	60,000	67,000
20	64,000	83,800	79,900	62,000	78,000	210,200	254,000	196,000	176,400	77,500	60,000	40,871
21	60,000	77,200	79,900	82,700	101,700	211,000	254,700	255,300	91,500	53,500	55,100	65,900
22	80,000	73,600	75,300	61,000	78,400	210,000	167,000	167,800	76,600	71,400	55,100	82,700
23	79,500	78,000	66,000	57,000	81,000	96,000	263,500	146,600	76,600	56,900	57,600	67,900
24	72,000	61,100	66,000	63,000	79,000	130,900	200,700	189,000	97,900	70,500	57,500	80,000
25	75,000	79,000	0	84,000	90,000	78,000	221,200	153600	137,100	73,200	57,500	82,400
26	70,000	80,400	0	72,000	91,000	78,000	229,650	199,800	126,700	70,000	0	81,000
27	71,000	76,800	0	75,000	91,000	95,900	229,650	85,600	91,600	78,400	0	106,200
28	72,000	81,300	0	30,000	94,000	96,000	86,200	85,500	0	76,500	0	0
29	71,000	80,600	0	0	148,500	118,000	96,000	112,400	0	63,100	0	0
30	81,000		0	0	79,700	240,800	140,000	108,700	0	61,200	0	0
31	80,000		0		129,600		0	0		61,500		0
TOTAL	**2,141,400**	**2,191,600**	**2,280,900**	**2,156,150**	**2,968,800**	**4,614,700**	**6,183,990**	**5,627,200**	**2,557,300**	**2,372,100**	**1,491,867**	**2,112,404**

COMBINED TOTAL	**2,141,400**	**2,191,600**	**2,280,900**	**2,156,150**	**2,968,800**	**4,614,700**	**6,183,990**	**5,627,200**	**2,557,300**	**2,372,100**	**1,491,867**	**2,112,404**

PONDEROSA PINES WATER CO. #400106

ANNUAL WATER USEAGE WELL #1 - 1997

MONTH

DAY	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC
1	0	0	0	0	0	57,000	94,000	2,000	136,000	0	0	0
2	0	0	0	0	0	17,000	68,000	26,000	133,000	0	0	0
3	0	0	0	0	0	25,000	70,000	93,000	98,000	0	0	0
4	0	0	0	0	0	39,000	70,000	146,000	0	0	0	0
5	0	0	0	0	0	21,000	44,000	122,000	0	0	0	0
6	0	0	0	0	0	37,000	51,000	134,000	0	0	0	0
7	0	0	0	0	0	90,000	52,000	145,000	0	0	0	0
8	0	0	0	0	0	51,000	99,000	151,000	0	0	0	0
9	0	0	0	0	0	22,000	48,000	153,000	0	0	0	0
10	0	0	0	0	0	53,000	86,000	156,000	0	0	0	0
11	0	0	0	0	0	98,000	88,000	109,000	0	0	0	0
12	0	0	0	0	0	45,000	72,000	127,000	0	0	0	0
13	0	0	0	0	0	29,000	135,000	144,000	0	0	0	0
14	0	0	0	0	0	24,000	111,000	150,000	0	0	0	0
15	0	0	0	0	0	27,000	31,000	142,000	0	0	0	0
16	0	0	0	0	0	28,000	36,000	76,000	0	0	0	0
17	0	0	0	0	0	31,000	69,000	146,000	0	0	0	0
18	0	0	0	0	0	17,000	2,000	136,000	0	0	0	0
19	0	0	0	0	0	60,000	22,000	142,000	0	0	0	0
20	0	0	0	0	0	66,000	9,000	0	0	0	0	0
21	0	0	0	0	0	13,000	108,000	0	0	0	0	0
22	0	0	0	0	0	15,000	79,000	0	0	0	0	0
23	0	0	0	0	0	6,000	104,000	0	0	0	0	0
24	0	0	0	0	0	4,000	78,000	0	0	0	0	0
25	0	0	0	0	0	26,000	142,000	0	0	0	0	0
26	0	0	0	0	0	27,000	140,000	0	0	0	0	0
27	0	0	0	0	0	0	94,000	0	0	0	0	0
28	0	0	0	0	0	0	90,000	0	0	0	0	0
29	0		0	0	0	0	20,000	0	0	0	0	0
30	0		0	0	0	0	54,000	0	0	0	0	0
31	0		0		0		39,000	0		0		0
TOTAL	**0**	**0**	**0**	**0**	**0**	**928,000**	**2,205,000**	**2,300,000**	**367,000**	**0**	**0**	**0**

PONDEROSA PINES WATER CO. #400106

ANNUAL WATER USEAGE WELL #2 - 1997

MONTH

DAY	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC
1	83,500	93,600	105,300	76,000	65,900	151,800	85,500	88,800	318,500	79,800	59,400	121,400
2	83,000	93,400	199,700	77,700	62,600	86,100	79,500	198,000	168,300	81,800	117,200	57,200
3	83,000	101,600	95,000	72,000	85,300	76,400	148,600	465,100	140,400	70,700	64,600	61,000
4	83,500	106,489	90,200	89,500	189,700	73,200	284,700	261,900	148,500	69,500	60,000	57,400
5	92,500	79,866	84,000	83,100	94,200	92,300	167,400	288,600	167,300	129,700	58,900	55,500
6	102,200	101,200	76,400	146,200	99,700	56,200	439,100	298,400	138,300	78,100	60,600	65,200
7	95,400	125,700	76,400	99,500	130,000	419,500	237,300	303,100	409,800	66,100	62,600	115,700
8	89,100	99,576	74,700	67,100	146,000	173,300	207,600	171,400	159,000	68,200	123,900	55,600
9	89,100	78,831	84,400	45,000	122,500	64,400	197,100	550,300	93,100	70,300	60,200	60,900
10	91,800	118,300	76,500	44,970	392,600	75,500	174,700	308,900	81,900	64,800	61,700	62,200
11	92,000	103,600	74,500	81,390	218,300	90,400	269,400	221,300	77,000	130,500	60,900	60,800
12	91,000	100,100	68,800	84,100	190,100	182,700	485,000	318,300	87,900	63,200	60,800	63,400
13	88,100	98,200	63,600	77,400	242,300	205,900	275,800	345,700	146,600	67,700	63,100	117,800
14	88,100	102,700	82,400	89,600	213,800	226,300	259,800	197,900	68,100	73,900	124,700	57,800
15	79,700	90,500	82,400	84,000	207,300	185,500	251,300	494,100	66,100	75,400	70,800	61,700
16	80,000	78,500	74,000	93,500	324,800	257,600	228,700	233,900	62,300	76,600	62,900	61,200
17	79,400	108,700	78,400	63,700	229,300	233,700	302,900	222,300	70,800	145,400	64,800	59,300
18	93,800	88,800	81,700	79,400	231,000	219,000	576,300	89,100	66,400	68,200	59,200	61,200
19	101,000	102,000	84,600	92,700	207,100	424,800	279,700	166,500	134,200	64,000	60,900	123,500
20	100,000	103,000	98,100	92,700	207,600	87,100	263,600	185,000	71,700	62,600	126,000	64,400
21	88,700	102,000	77,400	36,900	93,800	205,200	313,400	253,500	88,200	61,700	53,900	62,700
22	66,700	93,000	85,400	59,100	183,900	226,000	263,700	84,300	86,600	57,700	61,400	61,000
23	185,100	91,000	85,400	72,100	195,700	203,800	307,700	177,100	77,800	124,800	67,600	66,700
24	121,000	110,500	86,500	77,900	173,600	213,400	559,500	99,900	76,600	61,100	53,100	69,200
25	192,300	101,200	84,000	182,000	18,900	222,500	96,700	307300	166,900	61,300	62,100	140,500
26	106,745	103,800	53,200	77,800	80,800	185,400	108,600	0	97,100	58,600	0	70,100
27	106,745	99,900	22,700	57,300	76,500	0	59,600	0	0	65,900	0	67,200
28	94,300	96,500	75,400	0	121,200	0	0	0	0	0	0	0
29	110,000		64,200	0	0	0	0	0	0	0	0	0
30	0		0	0	0	0	0	0	0	0	0	0
31	0		0		0		0	0	0	0		0
TOTAL	**2,857,790**	**2,772,562**	**2,385,300**	**2,202,660**	**4,604,500**	**4,638,000**	**6,923,200**	**6,330,700**	**3,269,400**	**2,097,600**	**1,781,300**	**1,980,600**

COMBINED TOTAL	**2,857,790**	**2,772,562**	**2,385,300**	**2,202,660**	**4,604,500**	**5,566,000**	**9,128,200**	**8,630,700**	**3,636,400**	**2,097,600**	**1,781,300**	**1,980,600**

PONDEROSA PINES WATER CO. #400106

ANNUAL WATER USEAGE WELL #1 - 1998

	MONTH											
DAY	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC
1	0	0	0	0	0	69,000	39,000	114,000	216,000	0	0	0
2	0	0	0	0	0	5,900	119,000	100,000	149,000	0	0	0
3	0	0	0	0	0	1,200	46,000	117,000	302,000	0	0	0
4	0	0	0	0	0	0	113,000	55,000	35,000	0	0	0
5	0	0	0	0	0	0	107,000	59,000	0	0	0	0
6	0	0	0	0	0	0	134,000	89,000	0	0	0	0
7	0	0	0	0	0	0	116,000	273,000	0	0	0	0
8	0	0	0	0	0	0	95,000	165,000	0	0	0	0
9	0	0	0	0	0	0	134,000	97,000	0	0	0	0
10	0	0	0	0	0	0	93,000	105,000	0	0	0	0
11	0	0	0	0	0	0	0	0	0	0	0	0
12	0	0	0	0	0	0	0	0	0	0	0	0
13	0	0	0	0	0	0	0	0	0	0	0	0
14	0	0	0	0	0	0	0	0	0	0	0	0
15	0	0	0	0	0	0	0	0	0	0	0	0
16	0	0	0	0	0	0	0	0	0	0	0	0
17	0	0	0	0	0	0	0	0	0	0	0	0
18	0	0	0	0	0	0	0	0	0	0	0	0
19	0	0	0	0	0	0	0	0	0	0	0	0
20	0	0	0	0	0	0	0	0	0	0	0	0
21	0	0	0	0	0	0	0	0	0	0	0	0
22	0	0	0	0	0	0	0	0	0	0	0	0
23	0	0	0	0	0	0	0	0	0	0	0	0
24	0	0	0	0	0	0	0	0	0	0	0	0
25	0	0	0	0	0	0	0	0	0	0	0	0
26	0	0	0	0	0	0	0	0	0	0	0	0
27	0	0	0	0	0	0	0	0	0	0	0	0
28	0	0	0	0	0	0	0	0	0	0	0	0
29	0		0	0	0	0	0	0	0	0	0	0
30	0		0	0	0	0	0	0	0	0	0	0
31	0		0		0		0	0		0		0
TOTAL	**0**	**0**	**0**	**0**	**0**	**76,100**	**996,000**	**1,174,000**	**702,000**	**0**	**0**	**0**

PONDEROSA PINES WATER CO. #400106

ANNUAL WATER USEAGE WELL #2 - 1998

	MONTH											
DAY	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC
1	74,300	117,400	126,600	57,600	105,700	127,200	131,300	104,300	184,300	132,400	116,800	61,700
2	75,100	43,000	60,000	55,800	99,100	68,100	73,400	500,800	200,200	86,000	60,600	58,500
3	74,400	53,500	53,500	57,500	146,500	66,800	73,300	257,000	193,100	77,200	62,100	57,600
4	145,500	54,600	57,700	60,500	67,900	71,100	77,600	628,300	234,800	153,000	65,400	62,700
5	67,600	58,600	55,100	119,300	69,800	77,400	303,700	233,400	199,700	84,400	68,400	66,800
6	79,700	61,300	56,400	55,400	64,100	72,500	193,900	163,700	485,500	81,400	60,700	121,200
7	60,200	116,100	136,400	59,300	75,500	118,600	243,900	225,300	199,100	70,000	115,500	61,400
8	70,000	58,400	62,800	54,000	82,400	101,700	250,900	520,000	91,200	80,600	60,900	63,700
9	76,500	54,800	65,200	55,000	155,000	73,100	271,700	197,100	94,800	76,000	57,100	61,000
10	141,000	59,000	57,200	58,200	80,400	76,300	137,500	230,600	99,700	145,800	61,500	57,100
11	54,800	53,100	64,900	70,100	79,800	65,100	519,100	189,800	175,200	83,200	59,600	67,000
12	51,600	53,700	54,000	66,700	70,500	86,300	258,100	230,700	471,000	73,600	66,200	128,300
13	60,900	107,900	114,000	59,400	71,400	128,400	210,300	172,300	233,400	72,900	112,900	58,000
14	56,700	53,000	58,400	57,100	77,100	254,700	203,000	395,500	210,700	75,900	58,700	60,700
15	58,000	51,100	51,100	66,600	142,400	85,700	222,400	204,400	179,100	69,000	59,000	62,800
16	113,400	52,300	64,800	58,500	64,600	111,100	291,200	253,200	167,700	152,900	59,400	57,500
17	57,600	56,800	56,400	67,600	61,200	218,500	475,100	147,500	83,400	75,000	59,400	58,700
18	55,100	55,900	76,000	82,800	129,500	189,100	251,400	78,100	170,500	75,100	64,100	101,500
19	56,100	109,400	111,600	66,100	60,500	123,000	269,700	154,200	150,700	79,200	121,000	45,100
20	52,900	56,800	54,900	76,800	132,600	261,600	239,700	243,700	129,200	85,500	57,500	71,600
21	52,000	57,300	60,900	74,800	62,400	93,700	307,800	177,600	193,100	70,300	62,300	81,200
22	107,600	60,000	62,900	76,900	54,700	118,500	282,700	203,900	145,000	154,800	62,900	83,200
23	52,900	58,900	62,900	61,000	67,700	79,000	632,600	162,400	86,100	80,800	62,400	110,100
24	55,200	67,200	52,000	57,800	56,900	73,400	322,300	204,300	168,500	81,200	62,200	104,000
25	54,300	0	120,300	159,700	61,100	90,600	315,600	293400	101,600	74,200	123,500	71,700
26	55,500	0	57,900	85,100	0	397,000	131,200	433,100	124,900	79,500	0	75,200
27	51,900	0	0	136,300	0	222,300	76,100	0	0	59,700	0	76,000
28	0	0	0	136,400	0	0	0	0	0	0	0	86,800
29	0		0	0	0	0	0	0	0	0	0	0
30	0		0	0	0	0	0	0	0	0	0	0
31	0		0		0		0	0	0	0		0
TOTAL	**1,910,800**	**1,570,100**	**1,853,900**	**2,092,300**	**2,138,800**	**3,450,800**	**6,765,500**	**6,604,600**	**4,772,500**	**2,429,600**	**1,820,100**	**2,071,100**

COMBINED TOTAL	**1,910,800**	**1,570,100**	**1,853,900**	**2,092,300**	**2,138,800**	**3,526,900**	**7,761,500**	**7,778,600**	**5,474,500**	**2,429,600**	**1,820,100**	**2,071,100**

PONDEROSA PINES WATER CO. #400106

ANNUAL WATER USEAGE WELL #1 - 1999

MONTH

DAY	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC
1	0	0	0	0	0	21,900	20,400	72,600	0	21,500	0	0
2	0	0	0	0	0	22,000	104,500	23,500	0	0	0	0
3	0	0	0	0	0	49,200	23,200	21,500	0	0	0	0
4	0	0	0	0	0	20,000	45,500	56,500	0	0	0	0
5	0	0	0	0	0	19,600	88,200	21,800	0	0	0	0
6	0	0	0	0	0	16,200	26,400	20,000	0	0	0	0
7	0	0	0	0	0	22,100	111,700	19,700	0	0	0	0
8	0	0	0	0	0	18,500	23,000	25,400	0	0	0	0
9	0	0	0	0	0	37,200	24,000	57,500	0	0	0	0
10	0	0	0	0	0	15,700	20,500	0	0	0	0	0
11	0	0	0	0	0	15,800	22,300	0	0	0	0	0
12	0	0	0	0	0	42,500	24,000	0	0	0	0	0
13	0	0	0	0	0	64,800	46,200	0	0	0	0	0
14	0	0	0	0	0	22,100	22,100	0	0	0	0	0
15	0	0	0	0	0	44,500	23,300	0	0	0	0	0
16	0	0	0	0	0	20,600	23,500	0	0	0	0	0
17	0	0	0	0	0	60,500	24,000	0	0	0	0	0
18	0	0	0	0	0	40,200	0	0	0	0	0	0
19	0	0	0	0	0	36,100	0	0	0	0	0	0
20	0	0	0	0	0	55,600	0	0	0	0	0	0
21	0	0	0	0	0	44,500	0	0	0	0	0	0
22	0	0	0	0	0	0	0	0	0	0	0	0
23	0	0	0	0	0	0	0	0	0	0	0	0
24	0	0	0	0	0	0	0	0	0	0	0	0
25	0	0	0	0	219,000	0	0	0	0	0	0	0
26	0	0	0	0	220,000	0	0	0	0	0	0	0
27	0	0	0	0	492,000	0	0	0	0	0	0	0
28												
29												
30												
31												
TOTAL	**0**	**0**	**0**	**0**	**931,000**	**689,600**	**672,800**	**318,500**	**0**	**21,500**	**0**	**0**

PONDEROSA PINES WATER CO. #400106

ANNUAL WATER USEAGE WELL #2 - 1999

	MONTH											
DAY	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC
1	96,300	159,500	133,500	46,000	117,100	125,500	118,500	666,500	93,100	145,300	232,900	220,300
2	86,000	66,600	74,400	46,400	152,300	82,500	123,000	217,600	117,900	136,300	89,200	67,800
3	148,800	61,700	64,700	46,400	77,500	80,000	79,600	178,500	344,600	135,200	87,500	81,600
4	78,800	62,300	65,500	93,800	59,300	89,500	209,700	403,300	267,600	128,100	76,200	154,400
5	66,000	66,000	52,300	46,700	108,300	79,400	173,400	156,100	281,600	71,900	65,200	98,100
6	74,500	64,700	67,000	52,000	82,800	173,700	173,400	83,200	158,500	88,500	65,400	62,900
7	71,400	127,200	132,400	46,800	76,700	74,600	152,800	95,500	208,800	81,200	77,500	78,700
8	84,100	64,900	64,300	47,600	169,600	103,000	194,100	79,000	232,400	90,900	161,400	87,900
9	172,900	60,900	68,000	63,700	71,000	106,800	223,900	211,800	188,000	82,300	83,600	72,500
10	80,600	58,600	60,800	83,100	73,800	144,000	487,200	200,500	203,700	95,500	82,400	165,100
11	92,000	63,800	66,500	49,600	80,400	126,400	189,800	225,700	448,700	82,400	79,000	79,000
12	95,200	63,800	70,400	50,300	74,800	338,000	235,900	503,600	226,300	95,500	85,700	81,100
13	87,800	127,200	138,000	47,800	82,900	181,700	792,300	259,800	258,700	114,100	63,100	153,200
14	84,800	61,200	64,000	48,600	209,400	124,800	195,300	532,700	235,000	85,500	159,700	85,000
15	194,900	59,000	63,700	53,000	79,200	122,800	119,900	229,700	197,000	84,200	86,500	159,200
16	74,100	62,800	63,100	124,700	79,600	139,000	188,700	122,300	212,400	85,400	95,600	81,000
17	82,100	62,000	66,300	56,400	172,900	174,800	196,200	146,700	390,600	138,600	64,800	81,500
18	73,900	67,400	59,000	51,400	173,600	250,800	594,700	136,000	214,500	94,400	80,700	162,400
19	82,900	129,800	101,800	52,500	189,800	78,900	224,800	103,000	224,100	102,000	101,400	237,300
20	88,000	63,800	47,000	53,900	485,800	100,200	253,800	193,900	221,000	95,200	142,800	96,600
21	183,000	63,400	45,200	91,400	210,800	149,500	238,700	98,200	165,600	87,700	91,800	64,600
22	105,300	63,800	45,700	158,300	213,400	75,100	234,400		298,600	90,500	77,400	81,700
23	102,300	63,200	46,900	59,400	263,100	79,400			156,900	161,700	75,100	83,300
24	106,300	64,900	51,500	53,400	270,800	240,300			106,500	88,200	69,400	
25	109,700		94,500	59,800	286,200	175,200			112,800	79,000	245,400	
26	101,100		47,200	78,500		152,200			151,200	157,600		
27	159,500		45,200									
28												
29												
30												
31												
TOTAL	**2,782,300**	**1,808,500**	**1,898,900**	**1,661,500**	**3,861,100**	**3,568,100**	**5,400,100**	**4,843,600**	**5,716,100**	**2,697,200**	**2,539,700**	**2,535,200**

COMBINED TOTAL	**2,782,300**	**1,808,500**	**1,898,900**	**1,661,500**	**4,792,100**	**4,257,700**	**6,072,900**	**5,162,100**	**5,716,100**	**2,718,700**	**2,539,700**	**2,535,200**

PONDEROSA PINES WATER CO. #400106

ANNUAL WATER USEAGE WELL #2 - 2000

System Meter

	MONTH										
	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV
End	2,120,215	2,141,280	2,167,971	2,193,775	2,248,880	2,332,991	2,409,737	2,503,446	2,556,815	2,584,747	2,606,044
Begin	2,097,072	2,120,215	2,141,280	2,167,971	2,193,775	2,248,880	2,332,991	2,409,737	2,503,446	2,556,815	2,584,747
Total	**2,314,300**	**2,106,500**	**2,669,100**	**2,580,400**	**5,510,500**	**8,411,100**	**7,674,600**	**9,370,900**	**5,336,900**	**2,793,200**	**2,129,700**

PONDEROSA PINES WATER CO. #400106

ANNUAL WATER USAGE WELL #2 **2001**

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
WELL #2	488,642	490,944	493,648	497,072	505,976	514,863	525,486	536,128	543,379	546,626	548,318	550,297
X1000	486,120	488,642	490,944	493,648	497,072	505,976	514,863	525,486	536,128	543,379	546,626	548,318
Monthly Use	2,522,000	2,302,000	2,704,000	3,424,000	8,904,000	8,887,000	10,623,000	10,642,000	7,251,000	3,247,000	1,692,000	1,979,000
SYSTEM	2,653,441	2,674,353	2,698,106	2,723,222	2,784,194	2,845,261	2,918,529	2,992,591	3,043,286	3,070,497	3,092,682	3,116,995
X100	2,630,289	2,653,441	2,674,353	2,698,106	2,723,222	2,784,194	2,845,261	2,918,529	2,992,591	3,043,286	3,070,497	3,092,682
	2,315,200	2,091,200	2,375,300	2,511,600	6,097,200	6,106,700	7,326,800	7,406,200	5,069,500	2,721,100	2,218,500	2,431,300

TOTAL WATER USAGE IN GALLONS **48,670,600** **SYSTEM** **64,177,000** **WELL**

AVERAGE WATER USE PER DAY FOR SYSTEM

76,158	68,789	78,135	82,618	200,566	200,878	241,013	243,625	166,760	89,510	72,977	79,977

AVERAGE WATER USE PER DAY FOR WELL

82,961	75,724	88,947	112,632	292,895	292,336	349,441	350,066	238,520	106,809	55,658	65,099

2002 Water Usage

WELL	MONTH												Totals
	January	February	March	April	May	June	July	August	September	October	November	December	
Well # 1					50,000	2,457,000	4,022,000	2,863,000	621,000		5000	177,000	10,195,000
Well # 2	2,682,000	3,125,000	2,192,000	3,416,000	7,672,000	8,021,000	8,843,000	8,401,000	6,683,000	3,048,000	2,147,000	1,621,000	57,851,000
Total	**2,682,000**	**3,125,000**	**2,192,000**	**3,416,000**	**7,722,000**	**10,478,000**	**12,865,000**	**11,264,000**	**7,304,000**	**3,048,000**	**2,152,000**	**1,798,000**	**68,046,000**

2003 Water Usage

	MONTH												
WELL	**January**	**February**	**March**	**April**	**May**	**June**	**July**	**August**	**September**	**October**	**November**	**December**	**Total**
Well # 1					323,000	749,000	2,545,000	142,400	123,000			1,000	3,883,400
Well # 2	1,734,000	1,894,000	2,131,000	1,983,000	5,208,000	9,151,000	10,357,000	10,014,000	5,695,000	2,779,000	2,325,000	2,445,000	55,716,000
Total	**1,734,000**	**1,894,000**	**2,131,000**	**1,983,000**	**5,531,000**	**9,900,000**	**12,902,000**	**10,156,400**	**5,818,000**	**2,779,000**	**2,325,000**	**2,446,000**	**59,599,400**

2004 Water Usage

WELL	MONTH												Totals
	January	February	March	April	May	June	July	August	September	October	November	December	
Well # 1						449,000	2,500,000	730,000					3,679,000
Well # 2	2,653,000	2,373,000	2,656,000	3,543,000	4,993,000	8,062,000	7,868,000	7,537,000	5,119,000	2,855,000	1,908,000	1,968,000	51,535,000
Total	**2,653,000**	**2,373,000**	**2,656,000**	**3,543,000**	**4,993,000**	**8,511,000**	**10,368,000**	**8,267,000**	**5,119,000**	**2,855,000**	**1,908,000**	**1,968,000**	**55,214,000**

2005 Water Usage

WELL	MONTH												Totals
	January	February	March	April	May	June	July	August	September	October	November	December	
Well # 1							742,000	706,000	48,100	2,500	1,800		1,500,400
Well # 2	2,478,000	2,791,000	3,272,000	3,419,000	3,541,000	6,304,000	9,049,000	9,068,000	5,480,000	2,670,000	2,017,000	2,071,000	52,160,000
Total	**2,478,000**	**2,791,000**	**3,272,000**	**3,419,000**	**3,541,000**	**6,304,000**	**9,791,000**	**9,774,000**	**5,528,100**	**2,672,500**	**2,018,800**	**2,071,000**	**53,660,400**

2006 Water Usage

WELL	MONTH												Totals
	January	February	March	April	May	June	July	August	September	October	November	December	
Well # 1	12,000	191,000	22,000	35,000	13,000	136,000	146,000	6,000	4,000	7,000			572,000
Well # 2	1,854,000	1,973,000	2,068,000	2,246,000	4,349,000	5,235,000	8,411,000	8,196,000	5,478,000	2,838,000	1,615,000	2,373,000	46,636,000
Total	**1,866,000**	**2,164,000**	**2,090,000**	**2,281,000**	**4,362,000**	**5,371,000**	**8,557,000**	**8,202,000**	**5,482,000**	**2,845,000**	**1,615,000**	**2,373,000**	**47,208,000**

2007 Water Usage

WELL	MONTH												Totals
	January	February	March	April	May	June	July	August	September	October	November	December	
Well # 1	3,000		4,000	2,000		5,000		4,000	2,000	8,000	23,000		51,000
Well # 2	2,767,000	3,426,000	2,867,000	3,479,000	5,633,000	6,362,000	8,345,000	6,853,000	4,110,000	1,699,000	1,624,000	1,828,000	48,993,000
Total	**2,770,000**	**3,426,000**	**2,871,000**	**3,481,000**	**5,633,000**	**6,367,000**	**8,345,000**	**6,857,000**	**4,112,000**	**1,707,000**	**1,647,000**	**1,828,000**	**49,044,000**

2008 Water Usage

WELL	MONTH												Totals
	January	February	March	April	May	June	July	August	September	October	November	December	
Well # 1					5,000	8,000	6,000	3,000	0	3,000	3,000		28,000
Well # 2	2,040,000	2,006,000	2,101,000	2,023,000	3,574,000	5,227,000	7,735,000	6,391,000	4,852,000	2,055,000	1,469,000	2,009,000	41,482,000
Total	**2,040,000**	**2,006,000**	**2,101,000**	**2,023,000**	**3,579,000**	**5,235,000**	**7,741,000**	**6,394,000**	**4,852,000**	**2,058,000**	**1,472,000**	**2,009,000**	**41,510,000**

2009 Water Usage

No data for 2009

2010 Water Usage

WELL	MONTH												Totals
	January	February	March	April	May	June	July	August	September	October	November	December	
Well # 1													0
Well # 2	2,735,000	1,762,000	1,546,000	1,555,000	2,755,000	4,145,000	7,476,000	6,401,000	3,518,000	1,983,000	1,300,000	1,436,000	36,612,000
Total	**2,735,000**	**1,762,000**	**1,546,000**	**1,555,000**	**2,755,000**	**4,145,000**	**7,476,000**	**6,401,000**	**3,518,000**	**1,983,000**	**1,300,000**	**1,436,000**	**36,612,000**

2011 Water Usage

WELL	MONTH												Total
	January	February	March	April	May	June	July	August	September	October	November	December	
Well # 1													0
Well # 2	1,374,000	1,387,000	1,394,000	1,467,000	2,378,000	5,032,000	6,498,000	6,429,000	5,126,000	2,078,000	1,210,000	1,625,000	35,998,000
Total	**1,374,000**	**1,387,000**	**1,394,000**	**1,467,000**	**2,378,000**	**5,032,000**	**6,498,000**	**6,429,000**	**5,126,000**	**2,078,000**	**1,210,000**	**1,625,000**	**35,998,000**

2012 Water Usage

WELL	MONTH												Totals
	January	February	March	April	May	June	July	August	September	October	November	December	
Well # 1													
Well # 2	1,800,000	1,400,000	1,482,000	1,486,000	4,235,000	4,277,000	6,387,000	6,482,000	4,580,000	2,361,000	1,106,000	1,252,000	36,848,000
Total	**1,800,000**	**1,400,000**	**1,482,000**	**1,486,000**	**4,235,000**	**4,277,000**	**6,387,000**	**6,482,000**	**4,580,000**	**2,361,000**	**1,106,000**	**1,252,000**	**36,848,000**

2013 Water Usage

WELL	MONTH												Totals
	January	February	March	April	May	June	July	August	September	October	November	December	
Well # 1													0
Well # 2	1,558,000	1,110,000	1,461,000	2,465,000	3,884,000	5,045,000	7,347,000	6,177,000	4,417,000	1,892,000	1,285,000	3,547,000	40,188,000
Total	**1,558,000**	**1,110,000**	**1,461,000**	**2,465,000**	**3,884,000**	**5,045,000**	**7,347,000**	**6,177,000**	**4,417,000**	**1,892,000**	**1,285,000**	**3,547,000**	**40,188,000**

no water was pumped into distribution system from Well # 1 in 2013

BOOSTER PUMP HOURS

MONTH	PUMP #1		PUMP #2		PUMP #3		WELL #2	
	Total Hrs	hr/day	Total Hrs	hr/day	Total Hrs	hr/day	Total Hrs	hr/day
January	continuous	24.0	717.8	23.2	0.0	0.0	52.4	1.7
February	continuous	24.0	647.9	23.1	0.0	0.0	37.3	1.3
March	continuous	24.0	718.3	23.2	0.0	0.0	49.1	1.6
April	continuous	24.0	695.8	23.2	51.4	1.7	82.8	2.8
May	continuous	24.0	718.6	23.2	146.6	4.7	131.0	4.2
June	continuous	24.0	695.4	23.2	368.9	12.3	170.5	5.7
July	continuous	24.0	718.8	23.2	582.4	18.8	248.4	8.0
August	continuous	24.0	719.8	23.2	453.9	14.6	208.9	6.7
September	continuous	24.0	696.2	23.2	267.9	8.9	149.6	5.0
October	continuous	24.0	719.9	23.2	0.0	0.0	114.2	3.7
November	continuous	24.0	697.5	23.3	0.0	0.0	42.9	1.4
December	continuous	24.0	721.3	23.3	75.4	2.4	119.6	3.9
Total	**8,760.0**		**8,467.3**		**1,946.5**		**1,406.7**	

2014 Water Usage

WELL	MONTH												Totals
	January	February	March	April	May	June	July	August	September	October	November	December	
Well # 1	0	0	0	0	0	0	0	0					0
Well # 2	3,526,000	1,279,000	1,310,000	1,910,000	4,200,000	5,740,000	6,959,000	6,177,000					31,101,000
Total	**3,526,000**	**1,279,000**	**1,310,000**	**1,910,000**	**4,200,000**	**5,740,000**	**6,959,000**	**6,177,000**	**0**	**0**	**0**	**0**	**31,101,000**

no water was pumped into distribution system from Well # 1 in 2014

BOOSTER PUMP HOURS

MONTH	PUMP #1		PUMP #2		PUMP #3		WELL #2	
	Total Hrs.	hr/day	Total Hrs.	hr/day	Total Hrs.	hr/day	Total Hrs.	hr/day
January	continuous	24.0	718.2	23.2	13.2	0.4	118.7	3.8
February	continuous	24.0	645.5	23.1	0.0	0.0	43.1	1.5
March	continuous	24.0	716.8	23.1	0.0	0.0	44.1	1.4
April	continuous	24.0	693.4	23.1	13.4	0.4	64.3	2.1
May	continuous	24.0	722.1	23.3	286.9	9.3	142.0	4.6
June	continuous	24.0	689.5	23.0	410.0	13.7	194.6	6.5
July	continuous	24.0	700.7	22.6	471.5	15.2	235.8	7.6
August	continuous	24.0	698.3	22.5	448.9	14.5	209.4	6.8
September				0.0		0.0		0.0
October				0.0		0.0		0.0
November				0.0		0.0		0.0
December				0.0		0.0		0.0
Total	**5832**		**5,584.5**		**1,643.9**		**1,052.0**	

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Appendix C
Seasonal Use and Peak Demand

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Ponderosa Pines
Water Master Plan-2014 Update
Proj. #11137.002.01
Population Data

Residents/Lot= 2
Peak Factor= 2.9

Year	Annual Demand gal.	Avg. Daily Use, gpcd	Max. Monthly Demand, gal	Max. Daily Use, gpcd	Max. Inst. gpm
1987					
1988					
1989					
1990					
1991					
1992	53,067,000	234			
1993	49,970,000	213	9,424,000	474	612
1994	53,517,196	222	10,773,000	526	700
1995	42,457,179	171	6,642,960	316	432
1996	36,698,411	144	6,183,990	286	402
1997	47,643,612	182	9,128,200	411	593
1998	40,428,200	151	7,778,600	341	505
1999	41,945,700	153	6,072,900	260	395
2000	50,897,200	181	9,370,900	392	609
2001	64,177,000	226	10,642,000	440	691
2002	68,046,000	237	12,865,000	527	836
2003	59,599,400	206	12,902,000	524	838
2004	55,214,000	189	10,368,000	417	674
2005	53,660,400	182	9,791,000	390	636
2006	47,208,000	158	8,557,000	338	556
2007	49,044,000	163	8,345,000	327	542
2008	41,510,000	137	7,741,000	300	503
2009					
2010	36,612,000	119	7,476,000	285	486
2011	35,998,000	116	6,498,000	246	422
2012	36,848,000	117	6,482,000	243	421
2013	40,188,000	127	7,347,000	273	477
2014					
2029	43,098,300	120	7,657,000	250	

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Appendix D
Well #1 Records

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NOTICE TO WATER WELL CONTRACTOR
The original and first copy of this report are to be filed with the STATE ENGINEER, SALEM, OREGON 97310 within 30 days from the date of well completion.

DESC 8047

WATER WELL REPORT

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

RECEIVED JUL - 2 1970 STATE ENGINEER SALEM, OREGON

State Well No. 22/10-6

State Permit No. 67020

(1) OWNER:

Name Brooks Resources

Address 447 E. Greenwood Bend 9770

(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 ☒

6" Diam. from 0 ft. to 229 ft. Gage .250

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

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

(6) 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.

... 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) WATER LEVEL: Completed well.

Static level 90 ft. below land surface Date 6/19/70

Artesian pressure lbs. per square inch Date

(9) 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 25 gal./min. with 0 ft. drawdown after 2 hrs.

Artesian flow g.p.m. Date

Temperature of water 47 Was a chemical analysis made? ☐ Yes ☒ No

(10) CONSTRUCTION:

Well seal—Material used Bentonite Slurry

Depth of seal 228 ft.

Diameter of well bore to bottom of seal 8 in.

Were any loose strata cemented off? ☐ Yes ☒ No Depth ...

Was a drive shoe used? ☒ Yes ☐ No

Did any strata contain unusable water? ☒ Yes ☐ No

Type of water? fine sand depth of strata 155 to 156

Method of sealing strata off Cased & Bentonite

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

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

(11) LOCATION OF WELL:

County Deschutes Driller's well number

¼ ¼ Section 6 T. 22S R. 10 E W.M.

Bearing and distance from section or subdivision corner

(12) WELL LOG:

Diameter of well below casing 6

Depth drilled 232 ft. Depth of completed well 232 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 as drilling proceeds. Note drilling rates.

MATERIAL	From	To	SWL
Sand, pumice	0	6"	
Pumice, brn, med to fine	6"	2½'	
Clay & Sediments	2½	5	
Gravekmmed, sand, grey, blk.	5	12	
Black sand	12	45	
Brown clay	45	47	
Sediments, clay	47	50	
Gravel, fine & sand	50	60	
Sand, fine	60	65	
Silt, brn. clay	65	91	
Grey clay	91	107	
Fine gravel	107	108	
Grey clay	108	117	
Clay & gravel	117	126	
Black sand, fine	126	140	
Grey clay	140	155	
Sand	155	156	
Grey clay	156	175	
Black sand	175	221	
Grey clay	221	230	
Coarse sand, pumice	230	232	

Work started 6/3/70 19 Completed 6/19/70 19

Date well drilling machine moved off of well 6/20/70 19

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] (Drilling Machine Operator) Date 6/30/, 1970

Drilling Machine Operator's License No. 400

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.

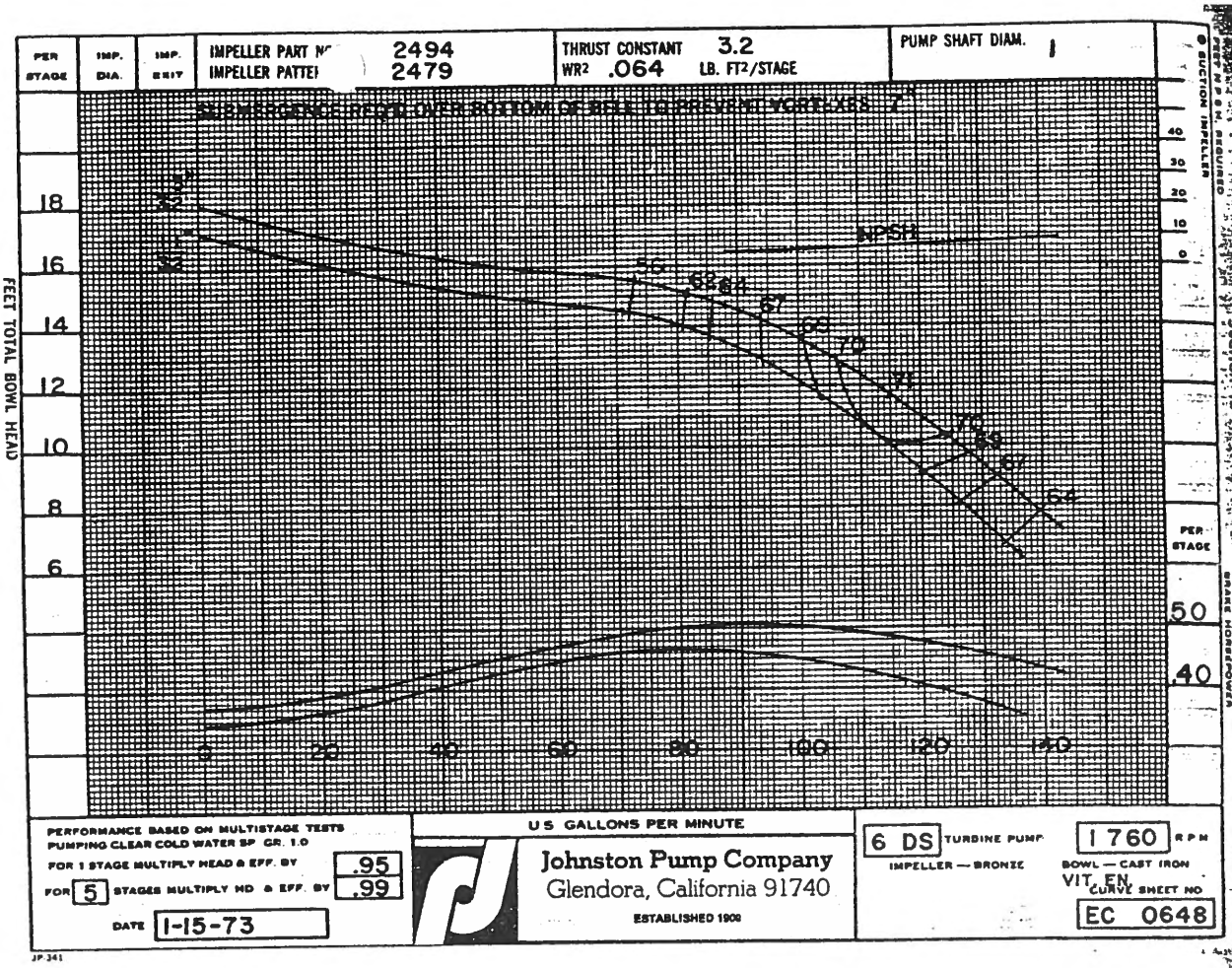
NAME REEDS WELL DRILLING (Person, firm or corporation) (Type or print)

Address 1142 Galveston Bend, Oregon

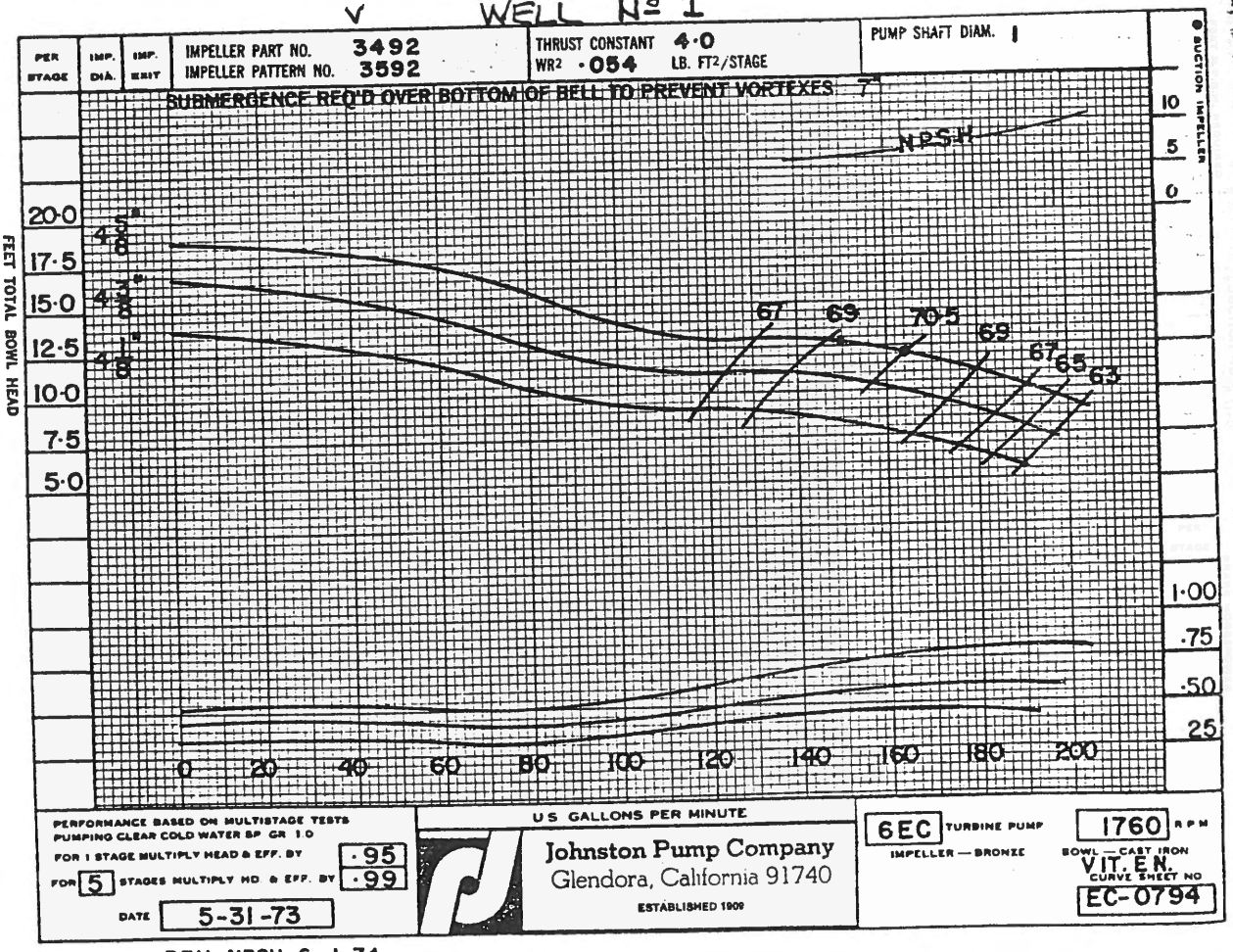
[Signed] Floyd Reed (Water Well Contractor)

Contractor's License No. 443 Date June 30, 1970

(USE ADDITIONAL SHEETS IF NECESSARY)



V WELL Nº 1



REV. NPSH 6-1-74

Water Right Information Query Results

Contact Information

Current contact information

OWNER:
PONDEROSA PINES WATER CO.
53299 PONDROSA WAY
LA PINE, OR 97739

Documents

View all scanned documents

Application: G 7020

Permit: G 6799 document , paper map

Signature: 8/5/1976

Permit Workflow			
Action	Date	Result	Completed By
Permit Issued	8/5/1976		
Extension Received	11/19/1998		ANN REECE
Extension PFO 315 Issued	6/29/2004		ANN REECE
Extension FO Issued	9/29/2004		
Extension Checkpoint 320 Received	10/1/2009		
Extension Checkpoint 320 Public Notice	1/26/2010		SCOTT KUDLEMYER
Extended Completion Date	10/1/2024		ANN REECE

Order(s)

Order Origin	Volume-Page	Signature	Description
Special	35-142	8/27/1981	EXTENDS TIME LIMITS FOR MULTIPLE PERMITS
Special	38-225	5/1/1984	EXTENDS 266 PERMITS
Special	42-281	7/8/1988	EXTENSION OF TIME FOR CERTAIN PERMITS
Special	46-534	12/29/1992	EXTENDED TIME LIMITS ON VARIOUS PERMITS

View right with Web Mapping

View Places of Use from Water Rights in the Same Area

Water Right Information

Status: Non-Cancelled

County: Deschutes

File Folder Location: Salem

Watermaster District: 11

Point(s) of Diversion

POD 1 - PONDEROSA PINES WE 1 > LITTLE DESCHUTES RIVER

Place(s) of Use

Add TRS grouping

Use - GROUP DOMESTIC (Primary); Priority Date: 6/25/1975

Water Right Genealogy

No genealogy records available for this water right, try the family link below instead.

View Water Rights in same Family

Report Errors with Water Right Data

Return to WRIS Query

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RECEIVED
JUN 25 1975
STATE ENGINEER
SALEM, OREGON

930

ASSIGNED. See Misc. Rec., Vol. G Page 1004

Permit No. G- G 6799

APPLICATION FOR A PERMIT

To Appropriate the Ground Waters of the State of Oregon

I, Brooks Resources Corporation
(Name of applicant)
of 416 E. Greenwood - Bend, Oregon, county of Deschutes,
(Postoffice Address)
state of Oregon, do hereby make application for a permit to appropriate the following described ground waters of the state of Oregon, SUBJECT TO EXISTING RIGHTS:

If the applicant is a corporation, give date and place of incorporation

1972 - Bend , Oregon

1. Give name of nearest stream to which the well, tunnel or other source of water development is situated Little Deschutes River
(Name of stream)
tributary of Deschutes River

2. The amount of water which the applicant intends to apply to beneficial use is 0.33 cubic feet per second or 150 gallons per minute.

3. The use to which the water is to be applied is Domestic

4. The well or other source is located ~~685~~ ft. ~~S.~~ (N. or S.) and ~~34~~ ft. ~~E.~~ (E. or W.) from the NW corner of Section (6) Six
(Section or subdivision)
Direct tie from well to NW corner Section six is N 02°53' W 686 Feet
(If preferable, give distance and bearing to section corner)

(If there is more than one well, each must be described. Use separate sheet if necessary)

being within the NW¼NW¼ of Sec. 6, Twp. 22S, R. 10E, W. M., in the county of Deschutes.

5. The Loop Distribution System (Canal or pipe line) to be 5.2± miles in length, terminating in the SW¼ SW¼ (Smallest legal subdivision) of Sec. 6, Twp. 22 South, R. 10 East W. M., the proposed location being shown throughout on the accompanying map.

6. The name of the well or other works is Ponderosa Pines Well No. 1

DESCRIPTION OF WORKS

7. If the flow to be utilized is artesian, the works to be used for the control and conservation of the supply when not in use must be described.

N.A.

8. The development will consist of ~~Two (2) wells,~~ Well No. 1 (Give number of wells, tunnels, etc.) having a diameter of 6 inches and ~~an estimated~~ depth of 232 feet. ~~It is estimated that~~ There is a 229 feet of ~~the well will require~~ 0.250ga. steel (Kind) casing. Depth to water table is ~~estimated~~ 90 feet (Feet)

Let Ltr dated 8-15-75 attd

See attached copy of well log

G 6799

G1—3M

SP*70635-119

G 6799

CANAL SYSTEM OR PIPE LINE—

9. (a) Give dimensions at each point of canal where materially changed in size, stating miles from headgate. At headgate: width on top (at water line) N.A. feet; width on bottom ..... feet; depth of water ..... feet; grade ..... feet fall per one thousand feet.

(b) At N.A. miles from headgate: width on top (at water line) ..... feet; width on bottom ..... feet; depth of water ..... feet; grade ..... feet fall per one thousand feet.

(c) Length of pipe, See plans attached ft.; size at intake ..... in.; in size at ..... ft. from intake ..... in.; size at place of use ..... in.; difference in elevation between intake and place of use, ... ft. Is grade uniform? ..... Estimated capacity, ... sec. ft.

10. If pumps are to be used, give size and type See pump house No. 1 plans attached

Give horsepower and type of motor or engine to be used See pump house No. 1 plans attached.

11. If the location of the well, tunnel, or other development work is less than one-fourth mile from a natural stream or stream channel, give the distance to the nearest point on each of such channels and the difference in elevation between the stream bed and the ground surface at the source of development

Pump house No. 1 elevation 4280 is approximately 2400 feet from existing creek (no name) elevation 4270 feet.

12. Location of area to be irrigated, or place of use as follows

Township N. or S.	Range E. or W. of Willamette Meridian	Section	Forty-acre Tract	Number Acres To Be Irrigated
22 South	9 East	1	NW¼NE¼	40.3
"	"	"	NE¼NE¼	40.1
"	"	"	SE¼NE¼	39.9
"	"	"	NE¼SE¼	40.0
"	"	"	~~SE¼SE¼~~	~~40.0~~
22 South	10 East	6	NW¼NW¼	27.5
"	"	"	NE¼NW¼	33.5
"	"	"	SW¼NW¼	27.8
"	"	"	SE¼NW¼	34.9
"	"	"	NW¼SW¼	28.1
"	"	"	~~SW¼SW¼~~	~~28.3~~
"	"	"	~~SE¼SW¼~~	~~34.3~~
"	"	"	~~SW¼SE¼~~	~~39.3~~

(If more space required, attach separate sheet)

letter dated 9-15-37 JBS

Character of soil Sand, Pumice

Kind of crops raised None

G 6799

Domestic
~~MUNICIPAL~~ SUPPLY—

13. *To supply the city of* Ponderosa Pines (Planned unit development)

in Deschutes *county, having a present population of* 40

and an estimated population of 580 *in 19*95.

ANSWER QUESTIONS 14, 15, 16, 17 AND 18 IN ALL CASES

14. *Estimated cost of proposed works,* $ 200,000

15. *Construction work* ~~*will begin on or before*~~ began in 1971

16. *Construction work will be completed on or before* 1975

17. *The water will be completely applied to the proposed use on or before* 1975

18. *If the ground water supply is supplemental to an existing water supply, identify any application for permit, permit, certificate or adjudicated right to appropriate water, made or held by the applicant.* N.A.

Kurt R. Batterson Asst Sec/Treas
(Signature of applicant)

Remarks:

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

This is to certify that I have examined the foregoing application, together with the accompanying maps and data, and return the same for .....

In order to retain its priority, this application must be returned to the State Engineer, with corrections on or before ....., *19*.....

WITNESS my hand this ..... *day of* ....., *19*.....

STATE ENGINEER

By .....
ASSISTANT

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

PERMIT

G 6799

This is to certify that I have examined the foregoing application and do hereby grant the same, SUBJECT TO EXISTING RIGHTS and the following limitations and conditions:

The right herein granted is limited to the amount of water which can be applied to beneficial use and shall not exceed 0.33 cubic feet per second measured at the point of diversion from the well or source of appropriation, or its equivalent in case of rotation with other water users, from Ponderosa Pines Well No. 1

The use to which this water is to be applied is group domestic

If for irrigation, this appropriation shall be limited to ..... of one cubic foot per second or its equivalent for each acre irrigated and shall be further limited to a diversion of not to exceed ..... acre feet per acre for each acre irrigated during the irrigation season of each year; .....

and shall be subject to such reasonable rotation system as may be ordered by the proper state officer.

The well shall be cased as necessary in accordance with good practice and if the flow is artesian the works shall include proper capping and control valve to prevent the waste of ground water.

The works constructed shall include an air line and pressure gauge or an access port for measuring line, adequate to determine water level elevation in the well at all times.

The permittee shall install and maintain a weir, meter, or other suitable measuring device, and shall keep a complete record of the amount of ground water withdrawn.

The priority date of this permit is June 25, 1975

Actual construction work shall begin on or before August 5, 1977 and shall thereafter be prosecuted with reasonable diligence and be completed on or before October 1, 1977
Extended to Oct. 1 1980 Extended to Oct. 1, 1985 Extended to October 1987 Extended to October 1, 1992, 10-1-97

Complete application of the water to the proposed use shall be made on or before October 1, 1978
Extended to Oct. 1 1980 Extended to Oct. 1, 1985 Extended to October 1987 Extended to October 1, 1992, 10-1-97

WITNESS my hand this 5th day of August, 1976

James E. Sexson
WATER RESOURCES DIRECTOR

FH
B

extended to BC 24 (2024)

Application No. G-7220
Permit No. G-6799

PERMIT
TO APPROPRIATE THE GROUND WATERS OF THE STATE OF OREGON

This instrument was first received in the office of the State Engineer at Salem, Oregon, on the 25th day of June, 1975, at 8:00 o'clock A M.

Returned to applicant:

Approved:

Recorded in book No. ..... of Ground Water Permits on page G 6799

STATE ENGINEER

Drainage Basin No. 5 page 42

#3000

Water Right Information Query Results

Contact Information

Current contact information

OWNER:
PONDEROSA PINES WATER CO.
53299 PONDROSA WAY
LA PINE, OR 97739

Water Right Information

Status: Non-Cancelled
County: Deschutes
File Folder Location: Salem
Watermaster District: 11

Documents

View all scanned documents

Application: G 9118

Permit: G 8502 document , paper map

Signature: 4/24/1979

Permit Workflow

Action	Date	Result	Completed By
Permit Issued	4/24/1979		
Extension Received	11/19/1998		ANN REECE
Extension PFO 315 Issued	6/29/2004		ANN REECE
Extension FO Issued	9/1/2004		
Extension Checkpoint 320 Received	10/1/2009		
Extension Checkpoint 320 Public Notice	1/26/2010		SCOTT KUDLEMYER
Extended Completion Date	10/1/2024		ANN REECE

Order(s)

Order Origin	Volume-Page	Signature	Description
Miscellaneous	6-1004	4/1/1982	BROOKS RESOURCES CORPORATION ASSIGNS ALL OF WATER RIGHT APPLICATION G-9118 & G-7020 & PERMIT G-8502, G-6799 TO: PONDEROSA PINES WATER COMPANY, AN OREGON NON-PROFIT CORPORATION.
Special	35-142	8/27/1981	EXTENDS TIME LIMITS FOR MULTIPLE PERMITS
Special	38-225	5/1/1984	EXTENDS 266 PERMITS
Special	42-281	7/8/1988	EXTENSION OF TIME FOR CERTAIN PERMITS
Special	46-534	12/29/1992	EXTENDED TIME LIMITS ON VARIOUS PERMITS

View right with Web Mapping
View Places of Use from Water Rights in the Same Area

Point(s) of Diversion

POD 1 - A WELL >

Place(s) of Use

Add TRS grouping

Use - GROUP DOMESTIC (Primary); Priority Date: 2/2/1979

Water Right Genealogy

No genealogy records available for this water right, try the family link below instead.

View Water Rights in same Family

Report Errors with Water Right Data

Return to WRIS Query

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ASSIGNED, See Misc. Rec., Vol. 6 Page 1004

Application No. G-9118 Permit No. G 8502

RECEIVED
FEB 2 1979
WATER RESOURCES DEP
SALEM, OREGON

STATE OF OREGON WATER RESOURCES DEPARTMENT

Application for a Permit to Appropriate Ground Water

I, BROOKS RESOURCES CORPORATION
(Name of Applicant)

of 416 NE Greenwood (Mailing Address), Bend (City)

State of Oregon, 97701 (Zip Code) Phone No. 382-1662 do hereby

make application for a permit to appropriate the following described ground waters of the State of Oregon:

1. The development will consist of One Well
(Give number of wells, tile lines, infiltration galleries, etc.)

having a diameter of 6 in. and an estimated depth of 232 feet.

2. The well or other source is to be located 685 ft. S (N. or S.) and 35 ft. E (E. or W.)

from the NW corner of Section 6, Township 22 South, Range 10 East,
(Public Land Survey Corner)

Willamette Meridian
(If there is more than one well, each must be described)

being within the NW ¼ of the NW ¼ of

Sec. 6 Tp. 22 South R. 10 East, W. M., in the county of Deschutes.

3. Location of area to be irrigated, or place of use if use other than irrigation.

Township	Range	Section	List ¼ ¼ of Section	List use and/or number of acres to be irrigated
22S	9E	1	SE 1/4, SE 1/4	
		12	E 1/2, NE 1/4	
			NE 1/4, SE 1/4	
22S	10E	6	S 1/2, SW 1/4	
			SW 1/4, SE 1/4	
		7	N 1/2	
			N 1/2, S 1/2	

4. It is estimated that 229 feet of the well will require 0.250 ga. (Kind) casing.

5. Depth to water table is estimated 90 (Feet) Well drilled by Reed's Well Drilling

6. The amount of water which the applicant intends to apply to beneficial use is ..... cubic feet per second or .....150..... gallons per minute.

7. The use to which the water is to be applied is .....group domestic.....

.....

8. If the flow to be utilized is artesian, the works to be used for the control and conservation of the supply when not in use must be described.

.....N/A.....

9. If the location of the well, or other development work is less than one-fourth mile from a natural stream channel, give the distance to the channel and the difference in elevation between the stream bed and the ground surface at the source of development.

.....N/A.....

10. DESCRIPTION OF WORKS

Include length and dimensions of supply ditch or pipeline, size and type of pump and motor, type of irrigation system to adequately describe the proposed distribution system.

Pump: 25 HP Vertical Turbine

1500 gal. pressure tank

Mainlines throughout system

Projected total of 305 lots at project completion

11. Construction work ~~will~~ did begin on or before June 30, 1970

12. Construction work will be completed on or before October 1, 2000

13. The water will be completely applied to the proposed use on or before October 1, 2000

14. If the ground water supply is supplemental to an existing supply, identify the supply and existing water right. N/A

Application No. G-9118 Permit No. G 8502

Remarks:.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

Signature of Applicant

.....

This is to certify that I have examined the foregoing application, together with the accompanying maps and data, and return the same for.....

.....

In order to retain its priority, this application must be returned to the Water Resources Director with corrections on or before....., *19*.....

WITNESS my hand this ..... *day of*....., *19*.....

..... *Water Resources Director*

By .....

This instrument was first received in the office of the Water Resources Director at Salem, Oregon, on the 2nd *day of* February, *19* 79, *at* 8:00 *o'clock* A *M.*

Application No. G-9118 *Permit No.* G 8502

Application No. G-9118 Permit No. G 8502

Permit to Appropriate the Public Waters of the State of Oregon

This is to certify that I have examined the foregoing application and do hereby grant the same, SUBJECT TO EXISTING RIGHTS INCLUDING THE EXISTING MINIMUM FLOW POLICIES ESTABLISHED BY THE WATER POLICY REVIEW BOARD and the following limitations and conditions:

The right herein granted is limited to the amount of water which can be applied to beneficial use and shall not exceed 0.33 *cubic feet per second measured at the point of diversion from the well or source of appropriation, or its equivalent in case of rotation with other water users, from* a well.

The use to which this water is to be applied is group domestic for 305 families.

If for irrigation, this appropriation shall be limited to ..... of one cubic foot per second or its equivalent for each acre irrigated and shall be further limited to a diversion of not to exceed ..... acre feet per acre for each acre irrigated during the irrigation season of each year;

and shall be subject to such reasonable rotation system as may be ordered by the proper state officer.

The well shall be constructed in accordance with the General Standards for the Construction and Maintenance of Water Wells in Oregon.

The works constructed shall include an air line and pressure gauge or an access port for measuring line, adequate to determine water level elevation in the well at all times.

The permittee shall install and maintain a weir, meter, or other suitable measuring device, and shall keep a complete record of the amount of ground water withdrawn.

The priority date of this permit is February 2, 1979

Actual construction work shall begin on or before April 24, 1980 *and shall thereafter be prosecuted with reasonable diligence and be completed on or before October 1, 19*80

Extended to Oct. 1, 1983 Extended to October 1987 Extended to October 1, 1992, 10-1-97

*Complete application of the water to the proposed use shall be made on or before October 1, 19*81

Extended to Oct. 1, 1983 Extended to October 1987 Extended to October 1, 1992, 10-1-97

WITNESS my hand this 24th *day of* April, *19*79

James E. Sexson

Water Resources Director

ext to C-24

24-K

Appendix E
Well #2 Records

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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.

RECEIVED
APR 3 1979
WATER RESOURCES DEPT.
SALEM, OREGON

DESC 8048

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

State Well No. 22S/10E-7bc

State Permit No.

(1) OWNER:
Name Brooks Resources Corporation
Address 416 NE Greenwood Bend, OR 97701

(2) TYPE OF WORK (check):
New Well ☒ Deepening ☐ Reconditioning ☐ Abandon ☐
If abandonment, describe material and procedure in Item 12.

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

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

(5) CASING INSTALLED:
Threaded ☐ Welded ☒
10 " Diam. from +2 ft. to -369 ft. Gage .250
" Diam. from ft. to ft. Gage
" Diam. from ft. to ft. Gage

(6) 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? A&H
Yield: 1,290 gal./min. with 8 ft. drawdown after 1/4 hrs.
1,029 " 4.8 " 1/4 "
" 550 " 1.3 " 8 "
Bailer test gal./min. with ft. drawdown after hrs.
Artesian flow g.p.m.
Temperature of water 43° Depth artesian flow encountered ft.

(9) CONSTRUCTION:
Well seal—Material used Cement
Well sealed from land surface to 35 ft.
Diameter of well bore to bottom of seal 16 in.
Diameter of well bore below seal 10 in. to 370'8"
Number of sacks of cement used in well seal 115 to 403 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? Iron & Mag. depth of strata 240 & 290
Method of sealing strata off Casing
Was well gravel packed? ☐ Yes ☒ No Size of gravel:
Gravel placed from ft. to ft.

(10) LOCATION OF WELL:
County Deschutes Driller's well number N/A
SW ¼ NW ¼ Section 7 T. 22S R. 10E W.M.
Bearing and distance from section or subdivision corner

(11) WATER LEVEL: Completed well.
Depth at which water was first found 45 ft.
Static level 77.6 ft. below land surface. Date
Artesian pressure lbs. per square inch. Date

(12) WELL LOG:
Diameter of well below casing 8"
Depth drilled 403 ft. Depth of completed well 403 ft.

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

MATERIAL	From	To	SWL
Top soil	0	2	
Pumice	2	7	
Coarse sand	7	9	
Sand & clay - lt. brown	9	16	
Sand & clay - dk. brown	16	45	
Coarse sand & polished cinder w/thin clay strips (brown)	45	53	50
Sand-med. fine w/cinders	53	57	
Sand & no water at 57'			
Silt-fine,brown	57	80	
Silt - very fine	80	90	
Clay-fine, brown & yellow	90	115	
Clay-med. fine, brown	115	140	
Clay-fine, brown	140	230	
Tuff ash & blk cinder sand w/water	230	247	
Clay-tan w/red tint	247	285	
Tuft ash-black cinder sand	285	290	
Clay-brown	290	365	

Work started Feb. 12 19 79 Completed Mar. 15 19 79
Date well drilling machine moved off of well Mar. 15 19 79

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] (Drilling Machine Operator) Date March 22, 1979
Drilling Machine Operator's License No. 967

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 Orvail Buckner (Person, firm or corporation) (Type or print)
Address 1686 NE Negus Way, Redmond, OR 97756
[Signed] (Water Well Contractor)
Contractor's License No. 608 Date 3-27, 1979

(USE ADDITIONAL SHEETS IF NECESSARY)

SP*45656-119

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.

RECEIVED
APR 3 1979
WATER RESOURCES DEPT.
SALEM, OREGON

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

State Well No. 22s/10E-76c
State Permit No.

Brooks Resources

Dec 22s/10E-76c

(1) OWNER:
Name
Address

(2) TYPE OF WORK (check):
New Well ☐ Deepening ☐ Reconditioning ☐ Abandon ☐
If abandonment, describe material and procedure in Item 12.

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

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

(5) CASING INSTALLED:
Threaded ☐ Welded ☐
..." Diam. from ... ft. to ... ft. Gage ...
..." Diam. from ... ft. to ... ft. Gage ...
..." Diam. from ... ft. to ... ft. Gage ...

(6) 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 ...
Well sealed from land surface to ... ft.
Diameter of well bore to bottom of seal ... in.
Diameter of well bore below seal ... in.
Number of sacks of cement used in well seal ... sacks
How was cement grout placed? ...
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 Driller's well number
¼ ¼ Section T. R. W.M.
Bearing and distance from section or subdivision corner

(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 ...
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
Basalt-gray, hd.	365	380	
Cinders, coarse	380	403	
Lots of water under basalt			

Work started 19 Completed 19
Date well drilling machine moved off of well 19

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] ... Date ..., 19...
(Drilling Machine Operator)
Drilling Machine Operator's License No. ...

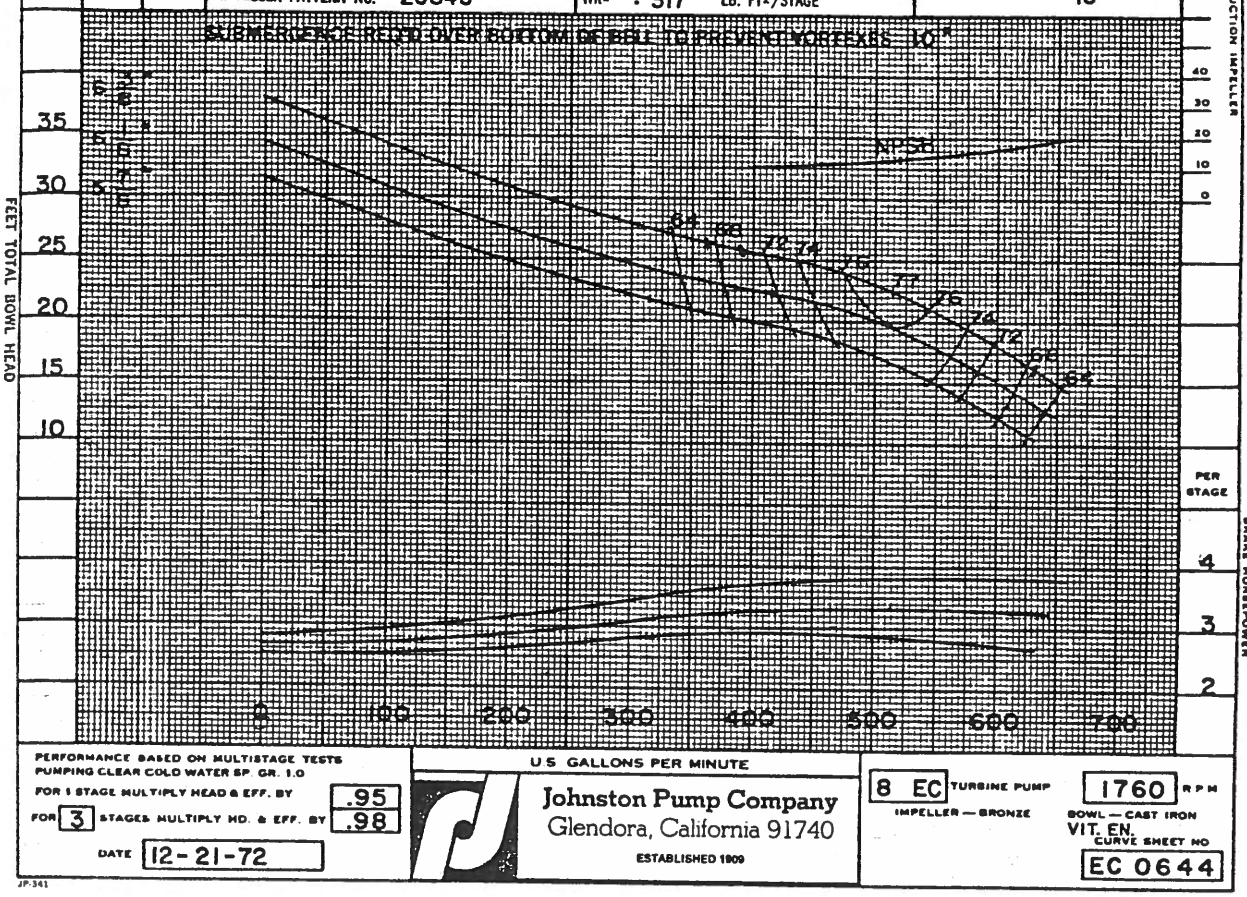
Water Well Contractor's Certification:
This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.

Name ...
(Person, firm or corporation) (Type or print)
Address ...
[Signed] ...
(Water Well Contractor)
Contractor's License No. ... Date ..., 19...

(USE ADDITIONAL SHEETS IF NECESSARY)

SP*45656-119

PER STAGE	IMP. DIA	IMP. EXIT	IMPELLER PART NO. 20844 / IMPELLER PATTERN NO. 20843	THRUST CONSTANT 6.8 / WR² .317 LB. FT²/STAGE	PUMP SHAFT DIAM. 1 3/16



PERFORMANCE BASED ON MULTISTAGE TESTS PUMPING CLEAR COLD WATER SP. GR. 1.0
FOR 1 STAGE MULTIPLY HEAD & EFF. BY .95
FOR 3 STAGES MULTIPLY HD. & EFF. BY .98
DATE 12-21-72

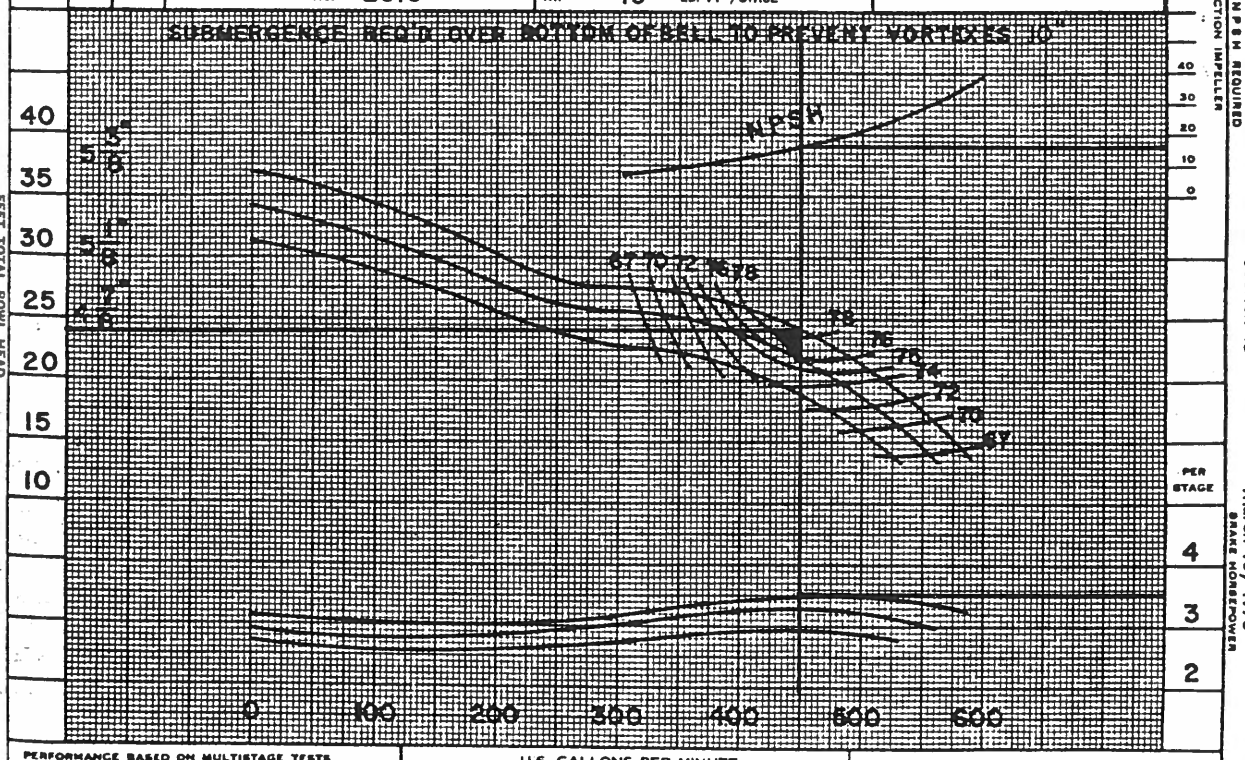
Johnston Pump Company
Glendora, California 91740
ESTABLISHED 1909

8 EC TURBINE PUMP — IMPELLER — BRONZE
1760 R P M — BOWL — CAST IRON
VIT. EN.
CURVE SHEET NO EC 0644

JP-341

WELL No 2

PER STAGE	IMP. DIA	IMP. EXIT	IMPELLER PART NO. 2945 / IMPELLER PATTERN NO. 2816	THRUST CONSTANT 7·8 / WR² ·13 LB. FT²/STAGE	PUMP SHAFT DIAM. 1 3/16



PERFORMANCE BASED ON MULTISTAGE TESTS PUMPING CLEAR COLD WATER SP. GR. 1.0
FOR 1 STAGE MULTIPLY HEAD & EFF. BY 0·95
FOR 2 STAGES MULTIPLY HD. & EFF BY 0·98
DATE 5-17-72

Johnston Pump Company
Glendora, California 91740
ESTABLISHED 1909

8 ES TURBINE PUMP — IMPELLER — BRONZE
1760 R P M — BOWL — CAST IRON
VIT. EN.
CURVE SHEET NO EC-0327

JP-341

Water Right Information Query Results

Contact Information

Current contact information

OWNER:
PONDEROSA PINES WATER CO.
53299 PONDEROSA WAY
LA PINE, OR 97739

Documents

View all scanned documents

Application: G 9116

Permit: G 8500 document , paper map

Signature: 4/24/1979

Permit Workflow			
Action	Date	Result	Completed By
Permit Issued	4/24/1979		
Completion Date [C Date]	10/1/1981		
Extension Received	11/19/1998		ANN REECE
Extension PFO 315 Issued	1/6/1999		ANN REECE
Extension FO Issued	4/6/1999		
Extension Received	9/17/2007		KIM FRENCH
Extension Comment Period Ends	9/25/2007		KIM FRENCH
Extended Completion Date	10/1/2007		ANN REECE
Extension PFO 320 Issued	9/16/2008	Propose to Approve	KIM FRENCH
Extension PFO Protest Period Ends	10/31/2008		ANN REECE
Extension FO Issued	11/10/2008	Extended	SCOTT KUDLEMYER
Extended Completion Date	10/1/2027		SCOTT KUDLEMYER

Water Right Information

Order(s)

Order Origin	Volume-Page	Signature	Description
Special	35-142	8/27/1981	EXTENDS TIME LIMITS FOR MULTIPLE PERMITS
Special	38-225	5/1/1984	EXTENDS 266 PERMITS
Special	42-281	7/8/1988	EXTENSION OF TIME FOR CERTAIN PERMITS
Special	46-534	12/29/1992	EXTENDED TIME LIMITS ON VARIOUS PERMITS

View right with Web Mapping

View Places of Use from Water Rights in the Same Area

Status: Non-Cancelled
County: Deschutes
File Folder Location: Salem
Watermaster District: 11

Point(s) of Diversion

POD 1 - A WELL >

Place(s) of Use

Add TRS grouping

Use - GROUP DOMESTIC (Primary); Priority Date: 2/2/1979

Water Right Genealogy

No genealogy records available for this water right, try the family link below instead.

View Water Rights in same Family

Report Errors with Water Right Data

Return to WRIS Query

ASSIGNED, See Misc. Rec., Vol. 6 Page 1005

Application No. G-9116 *Permit No.* G 8500

STATE OF OREGON WATER RESOURCES DEPARTMENT

Application for a Permit to Appropriate Ground Water

I, BROOKS RESOURCES CORPORATION (Name of Applicant)

of 416 NE Greenwood (Mailing Address), Bend (City)

State of Oregon, 97701 (Zip Code) *Phone No.* 382-1662 *do hereby make application for a permit to appropriate the following described ground waters of the State of Oregon:*

1. The development will consist of One Well (Give number of wells, tile lines, infiltration galleries, etc.) *having a diameter of* 10 inch *and an estimated depth of* 250 *feet.*

2. The well or other source is to be located 2200 *ft.* S (N. or S.) *and* 1180 *ft.* E (E. or W.) *from the* NW *corner of* Section 7, Township 22 South, Range 10 East, (Public Land Survey Corner) Willamette Meridian (If there is more than one well, each must be described) *being within the* SW *¼ of the* NW *¼ of Sec.* 7 *Tp.* 22S *R.* 10E*, W. M., in the county of* Deschutes.

3. Location of area to be irrigated, or place of use if use other than irrigation.

Township	*Range*	*Section*	*List ¼ ¼ of Section*	*List use and/or number of acres to be irrigated*
22S	9E	1	E 1/4	
			NW 1/4, NE 1/4	
		12	E 1/2, NE 1/4	
			NE 1/4, SE 1/4	
22S	10E	6	NW 1/4	
			W 1/2, SW 1/4	
			SE 1/4, SW 1/4	
			SW 1/4, SE 1/4	
		7	N 1/2	
			N 1/2, S 1/2	

4. It is estimated that 230 *feet of the well will require* 0-250 (Kind) *casing.*

5. Depth to water table is estimated 100 (Feet) *Well drilled by* Buckner Well Drilling

6. *The amount of water which the applicant intends to apply to beneficial use is* 1 *cubic feet per second or* 450 *gallons per minute.*

7. *The use to which the water is to be applied is* Group Domestic

8. *If the flow to be utilized is artesian, the works to be used for the control and conservation of the supply when not in use must be described.*

N/A

9. *If the location of the well, or other development work is less than one-fourth mile from a natural stream channel, give the distance to the channel and the difference in elevation between the stream bed and the ground surface at the source of development.*

N/A

10. *DESCRIPTION OF WORKS*

Include length and dimensions of supply ditch or pipeline, size and type of pump and motor, type of irrigation system to adequately describe the proposed distribution system.

Proposed 20 HP submersible pump

Mainlines throughout development

493 lots at project completion

11. *Construction work will begin on or before* March 31, 1979

12. *Construction work will be completed on or before* October 1, 2000

13. *The water will be completely applied to the proposed use on or before* October 1, 2000

14. *If the ground water supply is supplemental to an existing supply, identify the supply and existing water right.* N/A

Application No. G-9116 *Permit No.* G 8500

Remarks:.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

Signature of Applicant

.....

This is to certify that I have examined the foregoing application, together with the accompanying maps and data, and return the same for.....

.....

In order to retain its priority, this application must be returned to the Water Resources Director with corrections on or before....., *19*.....

WITNESS my hand this ..... *day of*....., *19*.....

..... *Water Resources Director*

By .....

This instrument was first received in the office of the Water Resources Director at Salem, Oregon, on the 2nd *day of* February, *19* 79, *at* 8:00 *o'clock* A *M.*

Application No. G-9116 *Permit No.* G 8500

Application No. G-9116 Permit No. G 8500

Permit to Appropriate the Public Waters of the State of Oregon

This is to certify that I have examined the foregoing application and do hereby grant the same, SUBJECT TO EXISTING RIGHTS INCLUDING THE EXISTING MINIMUM FLOW POLICIES ESTABLISHED BY THE WATER POLICY REVIEW BOARD and the following limitations and conditions:

The right herein granted is limited to the amount of water which can be applied to beneficial use and shall not exceed 0.87 *cubic feet per second measured at the point of diversion from the well or source of appropriation, or its equivalent in case of rotation with other water users, from* a well.

The use to which this water is to be applied is group domestic for 493 families.

If for irrigation, this appropriation shall be limited to ..... *of one cubic foot per second or its equivalent for each acre irrigated and shall be further limited to a diversion of not to exceed* ..... *acre feet per acre for each acre irrigated during the irrigation season of each year;*

and shall be subject to such reasonable rotation system as may be ordered by the proper state officer.

The well shall be constructed in accordance with the General Standards for the Construction and Maintenance of Water Wells in Oregon.

The works constructed shall include an air line and pressure gauge or an access port for measuring line, adequate to determine water level elevation in the well at all times.

The permittee shall install and maintain a weir, meter, or other suitable measuring device, and shall keep a complete record of the amount of ground water withdrawn.

The priority date of this permit is February 2, 1979

Actual construction work shall begin on or before April 24, 1980 *and shall thereafter be prosecuted with reasonable diligence and be completed on or before October 1, 19*80

Extended to Oct. 1, 1983 Extended to October 1, 1987 Extended to October 1, 1992, 10-1-87

*Complete application of the water to the proposed use shall be made on or before October 1, 19*81

Extended to Oct. 1, 1983 Extended to October 1987 Extended to October 1, 1992, 10-1-87

WITNESS my hand this 24th *day of* April, *19*79

BC #7

James E. Sexson

Water Resources Director

RAK

Appendix F
Storage Tank Information

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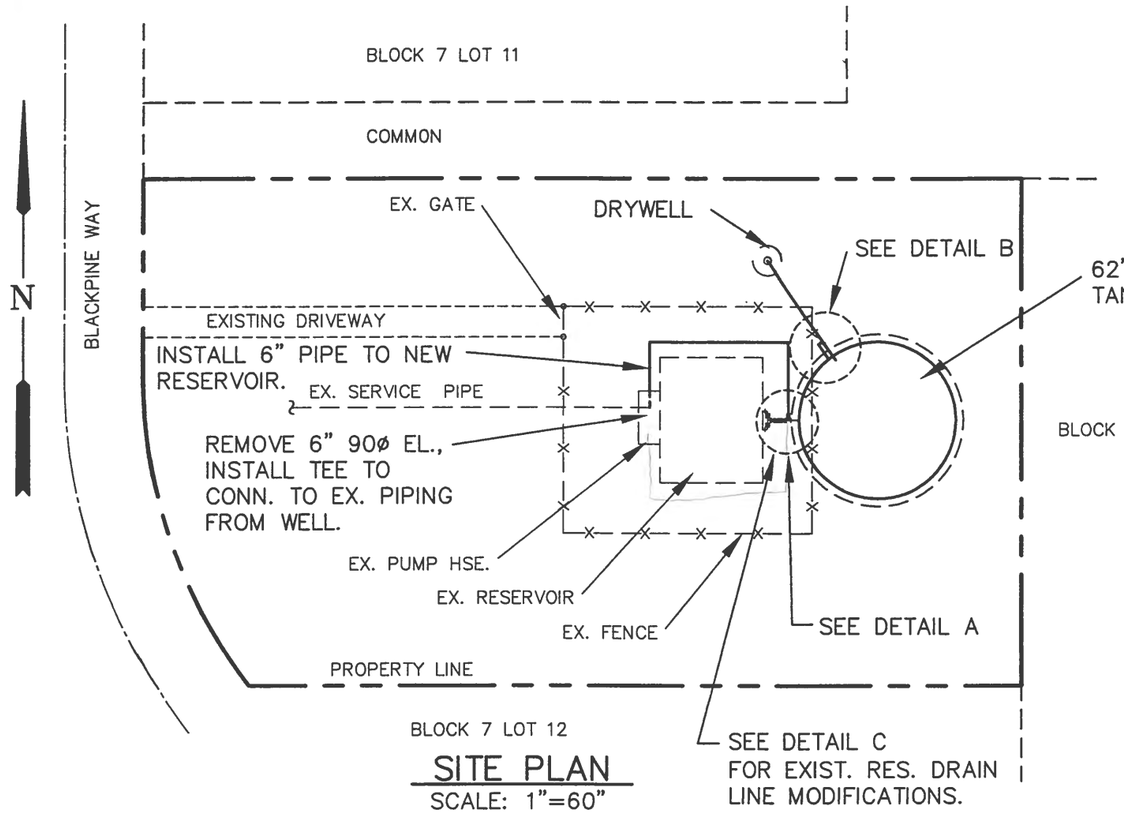
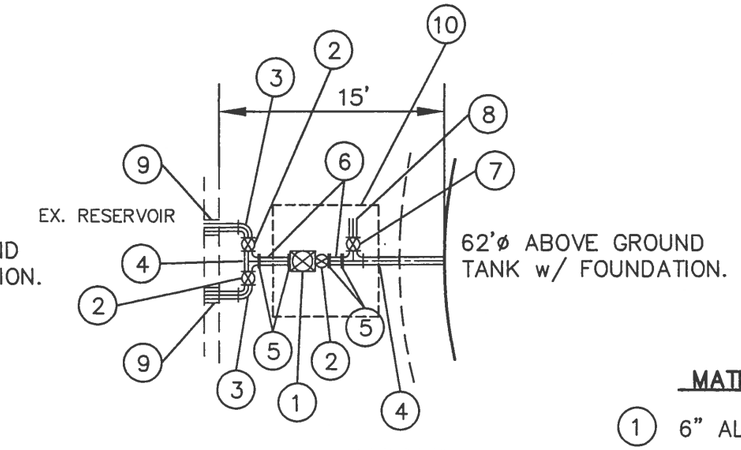
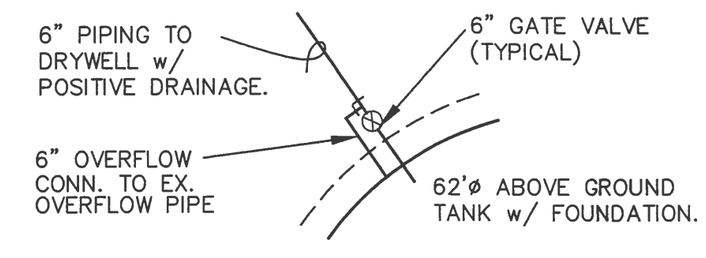


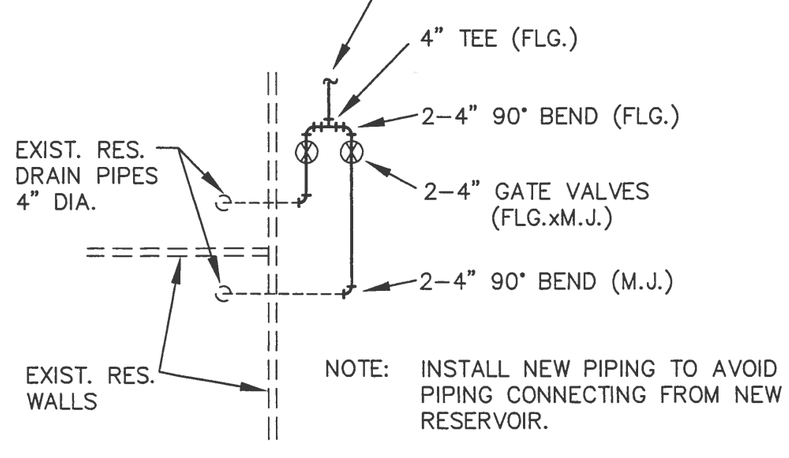
SITE PLAN
SCALE: 1"=60"



DETAIL A
SCALE: 1"=10'



DETAIL B
N.T.S.



DETAIL C
N.T.S.

MATERIAL LIST

1. 6" ALTITUDE VALVE (FLG x FLG)
2. 6" GATE VALVE (FLG x FLG)
3. 6" 90° BEND (FLG x FLG)
4. 6"x 6" TEE (FLG x FLG)
5. FLG x PE ADAPTOR (TYP.)
6. PE x PE SPOOL (TYP.)
7. 6" GATE VALVE (FLG x MJ)
8. NEW 6" PIPE TO PUMP HSE.
9. CORE DRILL RESERVOIR WALL FOR LINK SEAL INSTALLATION.
10. ~~POURED IN PLACE CONCRETE VAULT (7'-4" W x 7'-0" L DIMENSIONS).~~ 4' DIA. MANHOLE WITH FLAT TOP — ALTITUDE VALVE VAULT

731-4317

REGISTERED PROFESSIONAL ENGINEER 11021 Terry L. Angle OREGON MAY 7, 1981 TERRY L. ANGLE

DESIGNED BY: TLA	DATE : 1/20/97
DRAWN BY : JJB	SCALE : 1"=60'
CHECKED BY : TLA	SEC. : C:\DWG
PROJECT NO.: 11137.002.01	

centurywest ENGINEERING CORPORATION

SITE PLAN
RESERVOIR PIPING
PONDEROSA PINE WATER CO.
LAPINE, OREGON

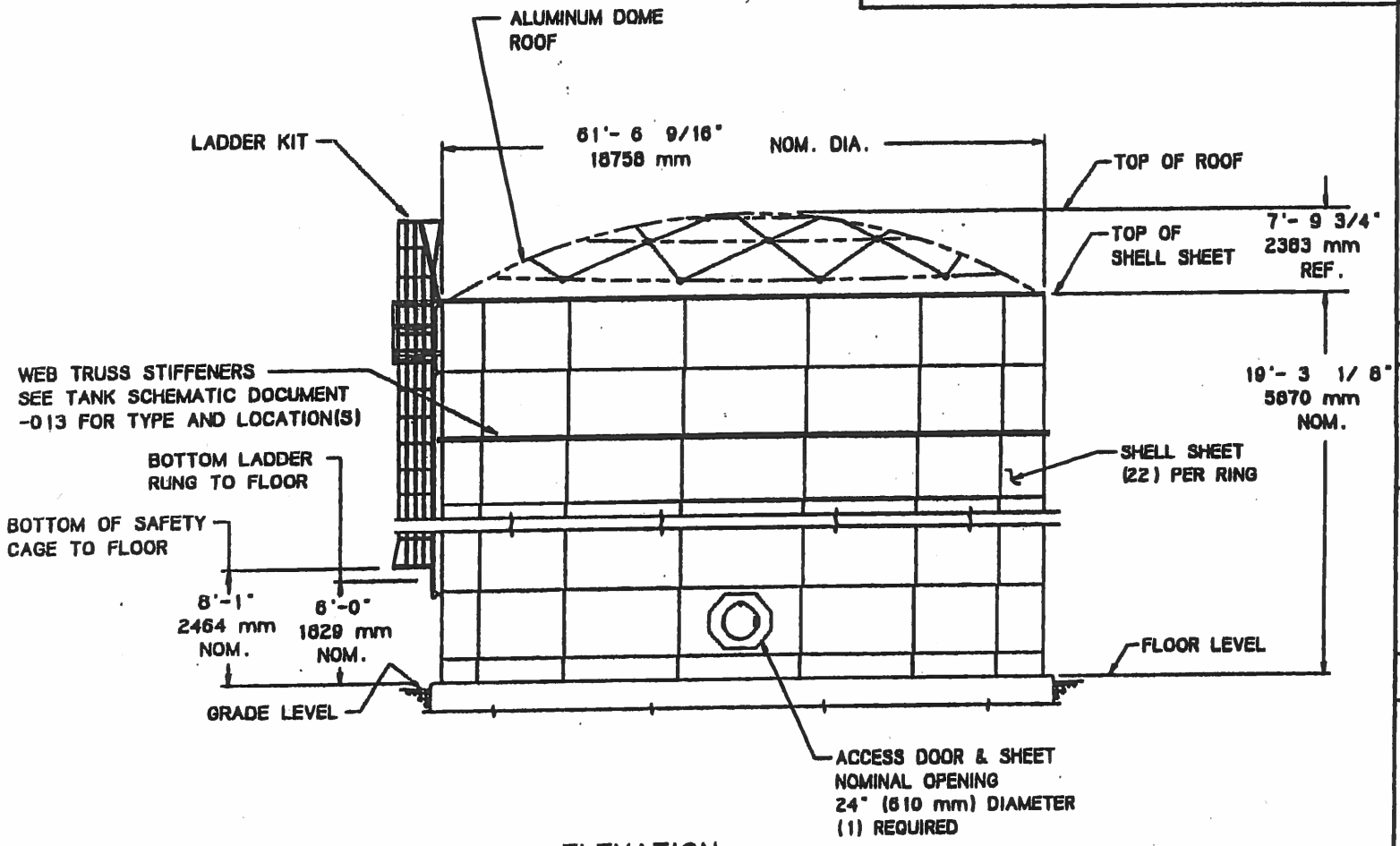
FIGURE 1

I:\SDSKPROJ\11137-02\11137002

NOTES:
1. THIS DRAWING IS NOT TO SCALE.
2. REFER TO TANK SCHEMATIC DOCUMENT -013 FOR NUMBER OF RINGS IN TANK AND RESPECTIVE SHEET THICKNESSES.

MAXIMUM ROOF SUPPORT LOAD (FIXED TYPE CONNECTION)	7840 LBS 3556 kg

AOSHPI MUST BE NOTIFIED IF INFORMATION FROM THE ROOF SUPPLIER INDICATES THAT THE MAXIMUM ROOF SUPPORT LOAD EXCEEDS THE VALUE AS GIVEN AND/OR IF A NON-FIXED TYPE CONNECTION IS BEING PROVIDED.



ELEVATION

REL	DESCRIPTION
1	REL. PER MIP 8930455 08/06/93

TANK COLOR: COBALT BLUE

A.O. SMITH HARVESTORE PRODUCTS, INC.
DEKALB, IL.

FILE: 8930455A

DRAWN BY DMN
DATE 08/06/93

6219 SSWT
SZ 2 FXD.PCG.
PONDEROSA PINES WATER DISTRICT
LaPINE, OR

DRWG NO. 8930455-001

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Appendix G
Booster Station Pump Curves

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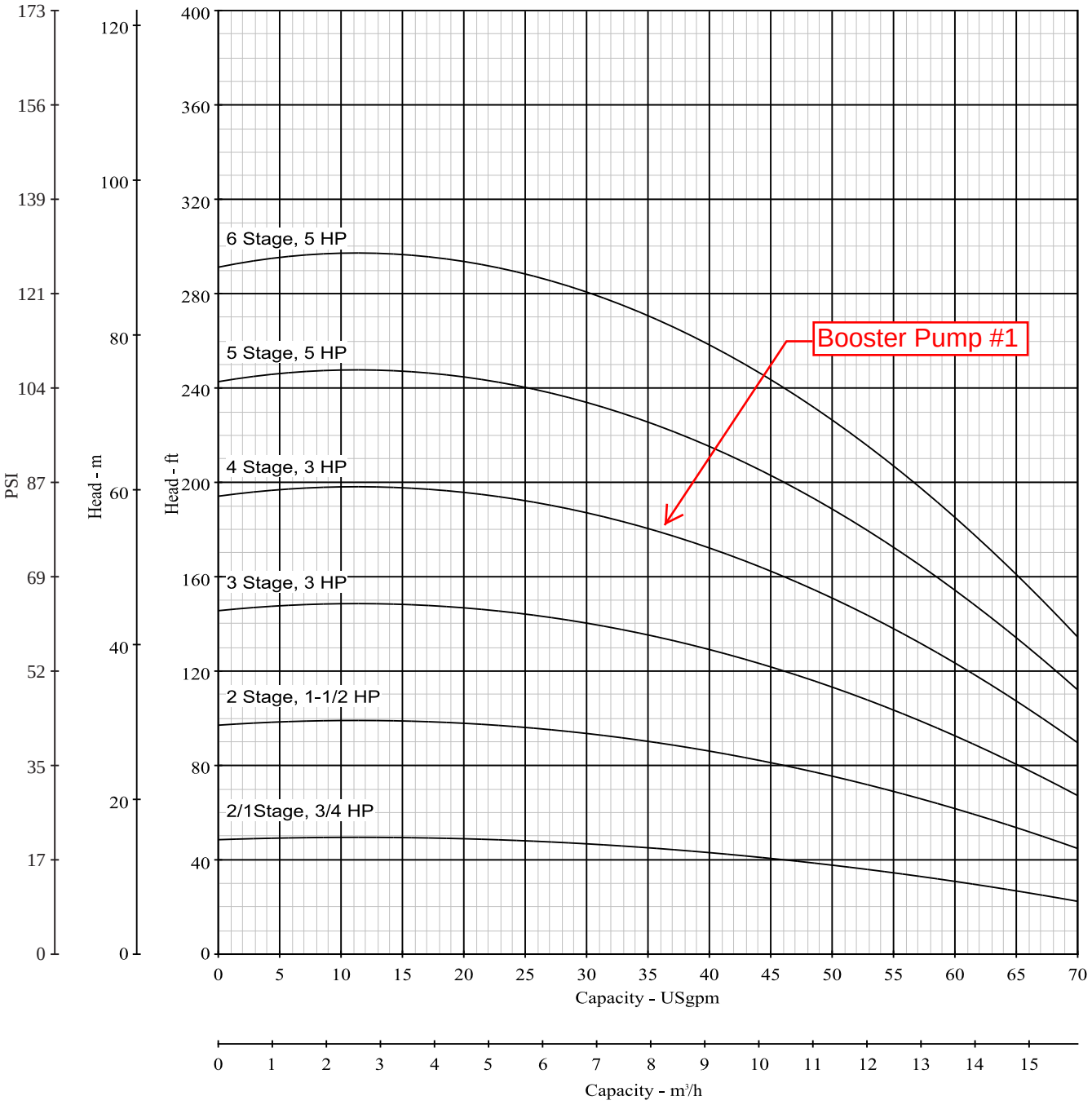
BVM (I/X) 8 SERIES

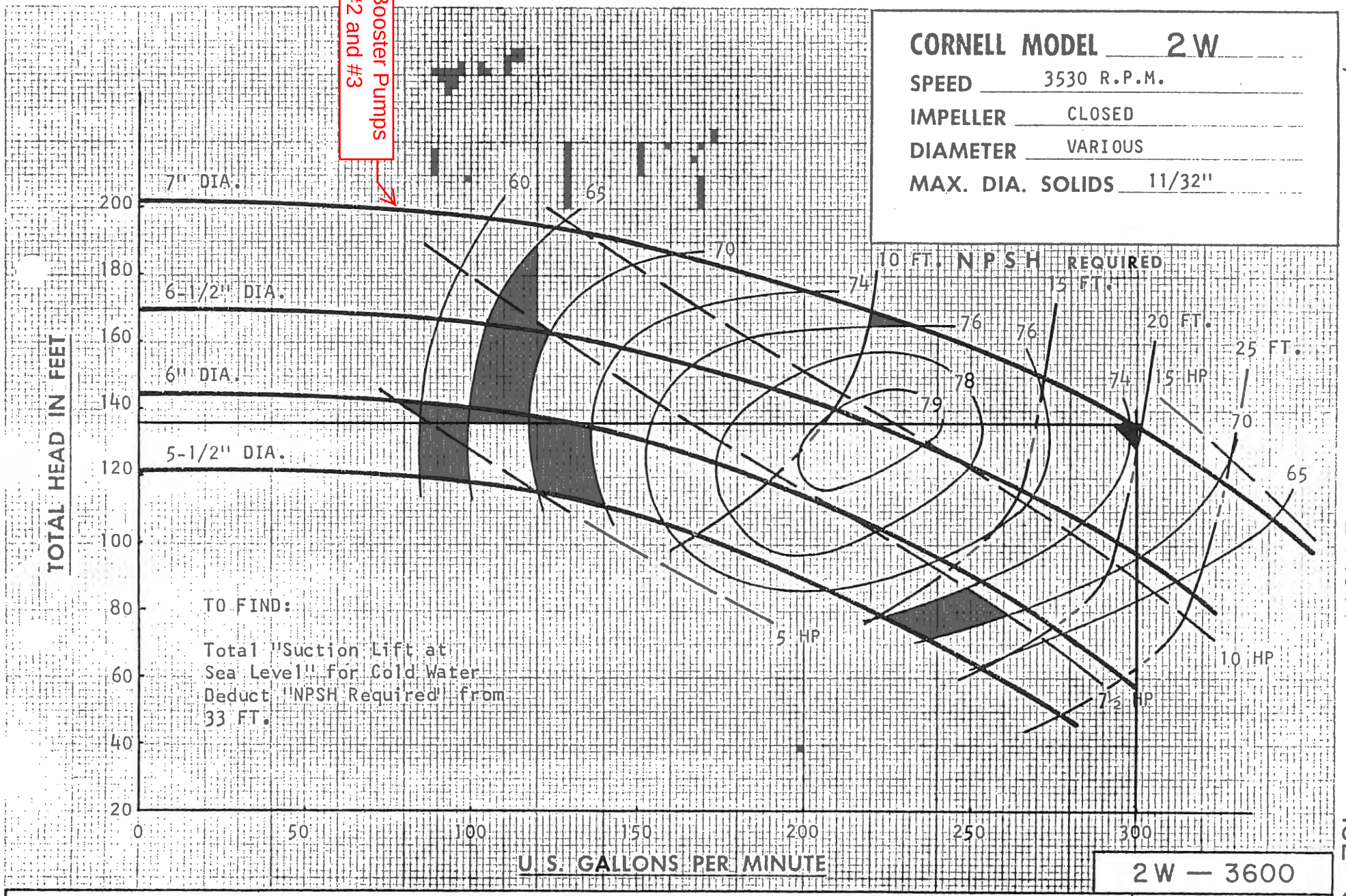
Performance Curves – BVM (IX) 8 Series

Nominal RPM: **3450**
Based on Fresh Water@68 deg. F.
Maximum Working Pressure: 360 PSI



Booster Pumps #2 and #3

CORNELL MODEL 2W
SPEED 3530 R.P.M.
IMPELLER CLOSED
DIAMETER VARIOUS
MAX. DIA. SOLIDS 11/32"



2W — 3600

CORNELL MANUFACTURING CO. • PORTLAND, OREGON 3Ø 896 1Ø

10 DAY

SUPERSEDES 132-35C JULY, 1961 OR SC1369

DECEMBER 1971

132-35C

B 293

Appendix H
Water Quality Test Information

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Oregon Public Health
Drinking Water Data Online

Introduction :: Data Search Options :: WS Name Look Up :: WS ID Look Up :: DWS Home :: Quick Data Links

OR41 00106 **PONDEROSA PINES WATER COMPANY** **Classification**: COMMUNITY

Contact: BILL PEACHEY
53299 PONDEROSA WAY
LA PINE, OR 97739

Phone: 641-536-9125
County: DESCHUTES
Activity Status: ACTIVE -- **History**
Population: 874
Number of Connections: 437
Operating Period: January 1 to December 31
Regulating Agency: DESCHUTES COUNTY
Certified Operator(s)
Required: Y
Distribution class: 1
Treatment class: None
Filtration Endorsement Required: No
Owner Type: PRIVATE
Licensed By: N/A
Approved Drinking Water Protection Plan: No
Source Water Assessment: Yes
Last Survey Date: Apr 03, 2014

Sources

Facility ID	Facility Name - Well Logs	Activity Status	Availability	Source Type
EP-A	**EP FOR WELL #2 (SOUTH)**	**A**		**GW**
SRC-AA	WELL #2 (SOUTH)	A	Permanent	**GW**
EP-B	**EP FOR WELL #1 (NORTH)**	**A**		**GW**
SRC-BA	WELL #1 (NORTH)	A	Seasonal	**GW**

Treatment

State ID	Facility Name	Treatment Process	Treatment Objective	Filter Type

Consumer Confidence Reports (Last 5 Years)

For Year	Date Received	Date Certified
2013	Apr 14, 2014	Apr 14, 2014
2012	Jun 14, 2013	Jun 14, 2013
2011	May 16, 2012	May 16, 2012
2010	May 04, 2011	May 04, 2011
2009	Jun 03, 2010	Jun 03, 2010

Cross Connection/Backflow Prevention Information (Last 3 Records)

Ordinance Received	Annual Summary Report Received	Fee Invoice Paid
Yes	2013	2014
	2012	2013
	2011	2012

Oregon Public Health
Drinking Water Data Online

Introduction :: Data Search Options :: WS Name Look Up :: WS ID Look Up :: DWS Home :: Quick Data Links

Coliform Fact Sheet :: Spreadsheet

Sample Types: AS=Assessment, CO=Confirmation, RP=Repeat, RT=Routine, SP=Special, TG=Triggered, Show special samples

Recent Coliform Test Results - **PWS ID: 00106 ---- PONDEROSA PINES WATER COMPANY**

Sample Date	# Samples	Sample Type	Coliform Type	Results ID	Repeat of Sample ID	Sample Site	Facility	Cl Residual	Receive Date
Oct 02, 2014	1	RT	Total	Absent--B4J021905		15045 BLACK COTTONWO	DIST-A		Oct 09, 2014
Oct 02, 2014	1	RT	Total	Absent--B4J021904		14804 SPRINGWOOD	DIST-A		Oct 09, 2014
Oct 02, 2014	1	RT	Total	Absent--B4J021903		15405 PONDEROSA LOOP	DIST-A		Oct 09, 2014
Oct 02, 2014	1	RT	Total	Absent--B4J021902		14752 BIRDSEYE	DIST-A		Oct 09, 2014
Oct 02, 2014	1	RT	Total	Absent--B4J021901		SITE 4	DIST-A		Oct 09, 2014
Sep 05, 2014	1	TG	Total	Absent--B4I050504	B4I042101	WELL #1 (NORTH)	SRC-BA		Sep 06, 2014
Sep 05, 2014	1	RP	Total	Absent--B4I050503	B4I042101	UPSTREAM 52004 BLACK PINE DCVA	DIST-A		Sep 06, 2014
Sep 05, 2014	1	RP	Total	Absent--B4I050502	B4I042101	DOWNSTREAM 52090 FOX TAIL DCVA	DIST-A		Sep 06, 2014
Sep 05, 2014	1	RP	Total	Absent--B4I050501	B4I042101	TEST SITE #4	DIST-A		Sep 06, 2014
Sep 04, 2014	1	RT	Total	POSITIVE--B4I042101		TEST SITE #4	DIST-A		Sep 05, 2014
		RT	E.coli	Absent--B4I042101		TEST SITE #4	DIST-A		
Aug 07, 2014	1	RT	Total	Absent--B4H071701		SITE 4	DIST-A		Aug 19, 2014
Jul 10, 2014	1	RT	Total	Absent--B4G101601		TEST SITE 4	DIST-A		Jul 15, 2014
Jun 05, 2014	1	RT	Total	Absent--B4F052601		SITE 4	DIST-A		Jun 13, 2014
May 01, 2014	1	RT	Total	Absent--B4E012001		TEST SITE 4	DIST-A		May 08, 2014
Apr 03, 2014	1	RT	Total	Absent--B4D031001		TEST SITE 4	DIST-A		Apr 28, 2014
Mar 06, 2014	1	RT	Total	Absent--B4C061401		TEST SITE 4	DIST-A		Mar 19, 2014
Feb 06, 2014	1	RT	Total	Absent--B4B060701		TEST SITE 4	DIST-A		Feb 10, 2014
Jan 09, 2014	1	RT	Total	Absent--B4A090401		TEST SITE 4	DIST-A		Jan 29, 2014
Dec 05, 2013	1	RT	Total	Absent--B3L050601		TEST SITE 4	DIST-A		Dec 16, 2013

Sample Date	# Samples	Sample Type	Coliform Type	Results--ID	Repeat of Sample ID	Sample Site	Facility	Cl Residual	Receive Date
Nov 07, 2013	1	RT	Total	Absent--B3K072601		TEST SITE 4	DIST-A		Nov 27, 2013
Oct 03, 2013	1	RT	Total	Absent--B3J030601		TEST SITE 4	DIST-A		Oct 20, 2013
Sep 12, 2013	1	RT	Total	Absent--B3I131501		TEST SITE 4	DIST-A		Oct 02, 2013
Aug 01, 2013	1	RT	Total	Absent--B3H011901		TEST SITE 4	DIST-A		Aug 19, 2013
Jul 11, 2013	1	RT	Total	Absent--B3G112003		TEST SITE 4	DIST-A		Jul 29, 2013
Jun 06, 2013	1	RT	Total	Absent--B3F061601		TEST SITE 4	DIST-A		Jun 17, 2013
May 02, 2013	1	RT	Total	Absent--B3E021601		TEST SITE 4	DIST-A		May 13, 2013
Apr 04, 2013	1	RT	Total	Absent--B3D040601		TEST SITE 4	DIST-A		Apr 18, 2013
Mar 07, 2013	1	RT	Total	Absent--B3C070801		TEST SITE 4	DIST-A		Mar 27, 2013
Feb 07, 2013	1	RT	Total	Absent--B3B071201		TEST SITE 4	DIST-A		Feb 15, 2013
Jan 03, 2013	1	RT	Total	Absent--B3A030601		TEST SITE 4	DIST-A		Jan 09, 2013
Dec 06, 2012	1	RT	Total	Absent--B2L061601		TEST SITE 4	DIST-A		Dec 20, 2012
Nov 01, 2012	1	RT	Total	Absent--B2K011901		TEST SITE 4	DIST-A		Nov 05, 2012
Oct 04, 2012	1	RT	Total	Absent--B2J040601		TEST SITE 4	DIST-A		Oct 25, 2012
Sep 06, 2012	1	RT	Total	Absent--B2I070401		Test Site 4	DIST-A		Sep 09, 2012
Aug 02, 2012	1	RT	Total	Absent--B2H020701		Site 4	DIST-A		Aug 08, 2012
Jul 19, 2012	1	RT	Total	Absent--B2G191201		Test Site 4	DIST-A		Aug 06, 2012
Jun 07, 2012	1	RT	Total	Absent--B2F070901		Test Site 4	DIST-A		Jun 22, 2012
May 03, 2012	1	RT	Total	Absent--B2E030401		Test Site 4	DIST-A		May 17, 2012

Apr 05, 2012	1	RT	Total	Absent--B2D050901		Test Site 4	DIST-A		May 01, 2012

Sample Date	# Samples	Sample Type	Coliform Type	Results--ID	Repeat of Sample ID	Sample Site	Facility	Cl Residual	Receive Date
Mar 01, 2012	1	RT	Total	Absent--B2C010701		Test Site 4	DIST-A		Mar 03, 2012
Feb 02, 2012	1	RT	Total	Absent--B2B021201		Test Site 4	DIST-A		Feb 06, 2012
Jan 05, 2012	1	RT	Total	Absent--B2A051201		Test Site 4	DIST-A		Jan 25, 2012
Dec 01, 2011	1	RT	Total	Absent--B1L010801		test Site 4	DIST-A		Dec 08, 2011
Nov 03, 2011	1	RT	Total	Absent--B1K032001		Test Site 4	DIST-A		Nov 22, 2011
Oct 06, 2011	1	RT	Total	Absent--B1J061201		Test Site 4	DIST-A		Oct 21, 2011
Sep 01, 2011	1	RT	Total	Absent--B1I011603		Test Site 4	DIST-A		Sep 16, 2011
Sep 01, 2011	1	RT	Total	Absent--B1I011601		Well 1	DIST-A		Sep 16, 2011
Aug 04, 2011	1	RT	Total	Absent--B1H050301		Site 4	DIST-A		Aug 19, 2011
Jul 07, 2011	1	RT	Total	Absent--B1G071601		Site 4	DIST-A		Jul 12, 2011
Jun 02, 2011	1	RT	Total	Absent--B1F021501		Test Site 4	DIST-A		Jun 13, 2011
May 05, 2011	1	RT	Total	Absent--B1E060401		Test Site 4	DIST-A		May 12, 2011
Apr 07, 2011	1	RT	Total	Absent--B1D071501		Test Site 4	DIST-A		Apr 28, 2011
Mar 03, 2011	1	RT	Total	Absent--B1C030901		Test Site 4	DIST-A		Mar 09, 2011
Feb 03, 2011	1	RT	Total	Absent--B1B031401		Site 4	DIST-A		Feb 07, 2011
Jan 06, 2011	1	RT	Total	Absent--B1A060301		Site 4	DIST-A		Jan 24, 2011
Dec 02, 2010	1	RT	Total	Absent--B0L021001		Site 4	DIST-A		Dec 09, 2010
Nov 04, 2010	1	RT	Total	Absent--B0K041901		Test Site 4	DIST-A		Nov 15, 2010
Oct 14, 2010	1	RT	Total	Absent--B0J141001		Site 4	DIST-A		Oct 22, 2010
Sep 09, 2010	1	RT	Total	Absent--B0I093302		Site 4	DIST-A		Sep 11, 2010

Sample Date	# Samples	Sample Type	Coliform Type	Results--ID	Repeat of Sample ID	Sample Site	Facility	Cl Residual	Receive Date
Aug 05, 2010	1	RT	Total	Absent--B0H060401		Site 4	DIST-A		Aug 12, 2010
Jul 08, 2010	1	RT	Total	Absent--B0G090101		Test Site 4	DIST-A		Jul 14, 2010
Jun 03, 2010	1	RT	Total	Absent--B0F032001		Test Site 4	DIST-A		Jun 11, 2010
May 06, 2010	1	RT	Total	Absent--B0E061101		Test Site 4	DIST-A		May 10, 2010
Apr 01, 2010	1	RT	Total	Absent--B0D011501		Test Site 4	DIST-A		Apr 07, 2010
Mar 04, 2010	1	RT	Total	Absent--B0C050201		Test Site 4	DIST-A		Mar 12, 2010
Feb 04, 2010	1	RT	Total	Absent--B0B041101		Test Site 4	DIST-A		Feb 05, 2010
Jan 07, 2010	1	RT	Total	Absent--B0A070901		Test Site 4	DIST-A		Jan 08, 2010
Dec 03, 2009	1	RT	Total	Absent--B9L031501		Site 4	DIST-A		Dec 07, 2009
Nov 05, 2009	1	RT	Total	Absent--B9K051101		Test Site 4	DIST-A		Nov 13, 2009
Oct 01, 2009	1	RT	Total	Absent--B9J010901		Test Site 4	DIST-A		Oct 13, 2009
Sep 10, 2009	1	RT	Total	Absent--B9I101801		TEST SITE 4	DIST-A		Sep 14, 2009
Aug 06, 2009	1	RT	Total	Absent--B9H070601		WELL 1	DIST-A		Aug 11, 2009
Aug 06, 2009	1	RT	Total	Absent--B9H070603		TEST SITE 4	DIST-A		Aug 11, 2009
Jul 09, 2009	1	RT	Total	Absent--B9G091201		TEST SITE 4	DIST-A		Jul 16, 2009
Jun 04, 2009	1	RT	Total	Absent--B9F041201		TEST SITE 4	DIST-A		Jun 12, 2009
May 07, 2009	1	RT	Total	Absent--B9E070401		TEST SITE 4	DIST-A		May 13, 2009
Apr 02, 2009	1	RT	Total	Absent--B9D021201		TEST SITE 4	DIST-A		Apr 17, 2009
Mar 05, 2009	1	RT	Total	Absent--B9C050701		TEST SITE 4	DIST-A		Mar 12, 2009
Feb 06, 2009	1	RT	Total	Absent--B9B060201		TEST SITE 4	DIST-A		Feb 23, 2009

Sample Date	# Samples	Sample Type	Coliform Type	Results--ID	Repeat of Sample ID	Sample Site	Facility	Cl Residual	Receive Date
Jan 15, 2009	1	RT	Total	Absent--B9A150101		TEST SITE 4	DIST-A		Feb 05, 2009
Dec 04, 2008	1	RT	Total	Absent--B8L041501		TEST SITE 4	DIST-A		Dec 09, 2008
Nov 06, 2008	1	RT	Total	Absent--B8K061101		SITE 4	DIST-A		Nov 11, 2008

Oct 02, 2008	1	RT	Total	Absent--B8J022301	TEST SITE 4	DIST-A	Oct 06, 2008
Sep 05, 2008	1	RT	Total	Absent--B8I050101	SITE 4	DIST-A	Sep 15, 2008
Aug 07, 2008	1	RT	Total	Absent--B8H071101	SITE 4	DIST-A	Aug 12, 2008
Aug 07, 2008	1	RT	Total	Absent--B8H071102	WELL 1	DIST-A	Aug 12, 2008
Jul 10, 2008	1	RT	Total	Absent--B8G101501	TEST SITE 4	DIST-A	Jul 28, 2008
Jun 05, 2008	1	RT	Total	Absent--B8F052601	TEST SITE 4	DIST-A	Jun 11, 2008
May 01, 2008	1	RT	Total	Absent--B8E010901	TEST SITE 4	DIST-A	May 20, 2008
Apr 03, 2008	1	RT	Total	Absent--B8D030501	TEST SITE 4	DIST-A	Apr 21, 2008
Mar 06, 2008	1	RT	Total	Absent--B8C061301	TEST SITE 4	DIST-A	Mar 17, 2008
Feb 07, 2008	1	RT	Total	Absent--B8B070701	SITE 4	DIST-A	Feb 12, 2008
Jan 03, 2008	1	RT	Total	Absent--B8A030601	TEST SITE 4	DIST-A	Jan 08, 2008

Recent Batch Numbers

Click here to show results prior to 2008
Click here to show results prior to 2002 (opens a different page)

Sample Types: AS=Assessment, CO=Confirmation, RP=Repeat, RT=Routine, SP=Special, TG=Triggered, Show special samples

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Coliform fact sheet

PWS ID: 00106 ---- PONDEROSA PINES WATER COMPANY

Current Coliform Summary History

Samples Required	Sample Type	Sampling Period Type
1	RT	MONTH

Spreadsheet

Number of Samples Reported

Period End Date	Routines Reported	Routine TC+	Routine FC+	Repeats Reported	Repeat TC+	Repeat FC+	Period Type
Dec 31, 2014	0	0	0	0	0	0	YR
Oct 31, 2014	5	0	0	0	0	0	MN
Sep 30, 2014	1	1	0	3	0	0	MN
Aug 31, 2014	1	0	0	0	0	0	MN
Jul 31, 2014	1	0	0	0	0	0	MN
Jun 30, 2014	1	0	0	0	0	0	MN
May 31, 2014	1	0	0	0	0	0	MN
Apr 30, 2014	1	0	0	0	0	0	MN
Mar 31, 2014	1	0	0	0	0	0	MN
Feb 28, 2014	1	0	0	0	0	0	MN
Jan 31, 2014	1	0	0	0	0	0	MN
Dec 31, 2013	0	0	0	0	0	0	3Y
Dec 31, 2013	1	0	0	0	0	0	MN
Dec 31, 2013	0	0	0	0	0	0	YR
Nov 30, 2013	1	0	0	0	0	0	MN
Oct 31, 2013	1	0	0	0	0	0	MN
Sep 30, 2013	1	0	0	0	0	0	MN
Aug 31, 2013	1	0	0	0	0	0	MN
Jul 31, 2013	1	0	0	0	0	0	MN
Jun 30, 2013	1	0	0	0	0	0	MN
May 31, 2013	1	0	0	0	0	0	MN
Apr 30, 2013	1	0	0	0	0	0	MN
Mar 31, 2013	1	0	0	0	0	0	MN
Feb 28, 2013	1	0	0	0	0	0	MN
Jan 31, 2013	1	0	0	0	0	0	MN
Dec 31, 2012	1	0	0	0	0	0	MN
Dec 31, 2012	0	0	0	0	0	0	YR
Nov 30, 2012	1	0	0	0	0	0	MN
Oct 31, 2012	1	0	0	0	0	0	MN
Sep 30, 2012	1	0	0	0	0	0	MN
Aug 31, 2012	1	0	0	0	0	0	MN
Jul 31, 2012	1	0	0	0	0	0	MN
Jun 30, 2012	1	0	0	0	0	0	MN
May 31, 2012	1	0	0	0	0	0	MN
Apr 30, 2012	1	0	0	0	0	0	MN
Mar 31, 2012	1	0	0	0	0	0	MN
Feb 29, 2012	1	0	0	0	0	0	MN
Jan 31, 2012	1	0	0	0	0	0	MN
Dec 31, 2011	1	0	0	0	0	0	MN
Dec 31, 2011	0	0	0	0	0	0	YR
Nov 30, 2011	1	0	0	0	0	0	MN
Oct 31, 2011	1	0	0	0	0	0	MN
Sep 30, 2011	2	0	0	0	0	0	MN
Aug 31, 2011	1	0	0	0	0	0	MN
Jul 31, 2011	1	0	0	0	0	0	MN
Jun 30, 2011	1	0	0	0	0	0	MN
May 31, 2011	1	0	0	0	0	0	MN
Apr 30, 2011	1	0	0	0	0	0	MN
Mar 31, 2011	1	0	0	0	0	0	MN

Feb 28, 2011	1	0	0	0	0	0	MN
Jan 31, 2011	1	0	0	0	0	0	MN
Dec 31, 2010	0	0	0	0	0	0	3Y
Dec 31, 2010	0	0	0	0	0	0	9Y
Dec 31, 2010	1	0	0	0	0	0	MN
Dec 31, 2010	0	0	0	0	0	0	YR
Nov 30, 2010	1	0	0	0	0	0	MN
Oct 31, 2010	1	0	0	0	0	0	MN
Sep 30, 2010	1	0	0	0	0	0	MN
Aug 31, 2010	1	0	0	0	0	0	MN
Jul 31, 2010	1	0	0	0	0	0	MN
Jun 30, 2010	1	0	0	0	0	0	MN
May 31, 2010	1	0	0	0	0	0	MN
Apr 30, 2010	1	0	0	0	0	0	MN
Mar 31, 2010	1	0	0	0	0	0	MN
Feb 28, 2010	1	0	0	0	0	0	MN
Jan 31, 2010	1	0	0	0	0	0	MN
Dec 31, 2009	1	0	0	0	0	0	MN
Dec 31, 2009	0	0	0	0	0	0	YR
Nov 30, 2009	1	0	0	0	0	0	MN
Oct 31, 2009	1	0	0	0	0	0	MN
Sep 30, 2009	1	0	0	0	0	0	MN
Aug 31, 2009	2	0	0	0	0	0	MN
Jul 31, 2009	1	0	0	0	0	0	MN
Jun 30, 2009	1	0	0	0	0	0	MN
May 31, 2009	1	0	0	0	0	0	MN
Apr 30, 2009	1	0	0	0	0	0	MN
Mar 31, 2009	1	0	0	0	0	0	MN
Feb 28, 2009	1	0	0	0	0	0	MN
Jan 31, 2009	1	0	0	0	0	0	MN
Dec 31, 2008	1	0	0	0	0	0	MN
Dec 31, 2008	0	0	0	0	0	0	YR
Nov 30, 2008	1	0	0	0	0	0	MN
Oct 31, 2008	1	0	0	0	0	0	MN
Sep 30, 2008	1	0	0	0	0	0	MN
Aug 31, 2008	2	0	0	0	0	0	MN
Jul 31, 2008	1	0	0	0	0	0	MN
Jun 30, 2008	1	0	0	0	0	0	MN
May 31, 2008	1	0	0	0	0	0	MN
Apr 30, 2008	1	0	0	0	0	0	MN
Mar 31, 2008	1	0	0	0	0	0	MN
Feb 29, 2008	1	0	0	0	0	0	MN
Jan 31, 2008	1	0	0	0	0	0	MN
Dec 31, 2007	0	0	0	0	0	0	3Y
Dec 31, 2007	1	0	0	0	0	0	MN
Dec 31, 2007	0	0	0	0	0	0	YR
Nov 30, 2007	1	0	0	0	0	0	MN
Oct 31, 2007	2	0	0	0	0	0	MN
Sep 30, 2007	1	0	0	0	0	0	MN
Aug 31, 2007	1	0	0	0	0	0	MN
Jul 31, 2007	1	0	0	0	0	0	MN
Jun 30, 2007	1	0	0	0	0	0	MN
May 31, 2007	1	0	0	0	0	0	MN
Apr 30, 2007	1	0	0	0	0	0	MN
Mar 31, 2007	1	0	0	0	0	0	MN
Feb 28, 2007	1	0	0	0	0	0	MN
Dec 31, 2006	1	0	0	0	0	0	MN
Dec 31, 2006	0	0	0	0	0	0	YR
Nov 30, 2006	1	0	0	0	0	0	MN
Oct 31, 2006	1	0	0	0	0	0	MN
Sep 30, 2006	1	0	0	0	0	0	MN
Aug 31, 2006	1	0	0	0	0	0	MN
Jul 31, 2006	1	0	0	0	0	0	MN
Jun 30, 2006	1	0	0	0	0	0	MN
May 31, 2006	1	0	0	0	0	0	MN

Apr 30, 2006	1	0	0	0	0	0	MN
Mar 31, 2006	1	0	0	0	0	0	MN
Feb 28, 2006	1	0	0	0	0	0	MN
Jan 31, 2006	1	0	0	0	0	0	MN
Dec 31, 2005	1	0	0	0	0	0	MN
Dec 31, 2005	0	0	0	0	0	0	YR
Nov 30, 2005	1	0	0	0	0	0	MN
Oct 31, 2005	1	0	0	0	0	0	MN
Sep 30, 2005	1	0	0	0	0	0	MN
Aug 31, 2005	1	0	0	0	0	0	MN
Jul 31, 2005	1	0	0	0	0	0	MN
Jun 30, 2005	2	0	0	0	0	0	MN
May 31, 2005	1	0	0	0	0	0	MN
Apr 30, 2005	1	0	0	0	0	0	MN
Mar 31, 2005	1	0	0	0	0	0	MN
Feb 28, 2005	1	0	0	0	0	0	MN
Jan 31, 2005	1	0	0	0	0	0	MN
Dec 31, 2004	0	0	0	0	0	0	3Y
Dec 31, 2004	1	0	0	0	0	0	MN
Dec 31, 2004	0	0	0	0	0	0	YR
Nov 30, 2004	1	0	0	0	0	0	MN
Oct 31, 2004	1	0	0	0	0	0	MN
Sep 30, 2004	5	0	0	0	0	0	MN
Aug 31, 2004	10	**3**	0	**5**	**5**	0	MN
Jul 31, 2004	1	0	0	0	0	0	MN
Jun 30, 2004	1	0	0	0	0	0	MN
May 31, 2004	1	0	0	0	0	0	MN
Apr 30, 2004	1	0	0	0	0	0	MN
Mar 31, 2004	1	0	0	0	0	0	MN
Feb 29, 2004	1	0	0	0	0	0	MN
Jan 31, 2004	1	0	0	0	0	0	MN
Dec 31, 2003	1	0	0	0	0	0	MN
Dec 31, 2003	0	0	0	0	0	0	YR
Nov 30, 2003	1	0	0	0	0	0	MN
Oct 31, 2003	1	0	0	0	0	0	MN
Sep 30, 2003	1	0	0	0	0	0	MN
Aug 31, 2003	1	0	0	0	0	0	MN
Jul 31, 2003	1	0	0	0	0	0	MN
Jun 30, 2003	1	0	0	0	0	0	MN
May 31, 2003	1	0	0	0	0	0	MN
Apr 30, 2003	1	0	0	0	0	0	MN
Mar 31, 2003	1	0	0	0	0	0	MN
Feb 28, 2003	1	0	0	0	0	0	MN
Jan 31, 2003	1	0	0	0	0	0	MN
Dec 31, 2002	1	0	0	0	0	0	MN
Dec 31, 2002	0	0	0	0	0	0	YR
Nov 30, 2002	1	0	0	0	0	0	MN
Oct 31, 2002	1	0	0	0	0	0	MN
Sep 30, 2002	1	0	0	0	0	0	MN
Aug 31, 2002	1	0	0	0	0	0	MN
Jul 31, 2002	1	0	0	0	0	0	MN
Jun 30, 2002	2	0	0	0	0	0	MN
May 31, 2002	1	0	0	0	0	0	MN
Apr 30, 2002	1	0	0	0	0	0	MN
Mar 31, 2002	1	0	0	0	0	0	MN
Feb 28, 2002	1	0	0	0	0	0	MN
Jan 31, 2002	1	0	0	0	0	0	MN

Show results prior to 01/01/2002

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ND = Not Detected at the Minimum Reporting Level
Spreadsheet

Latest Chemical Results - PWS ID: 00106 ---- PONDEROSA PINES WATER COMPANY

Sample ID	Sample Date	Receive Date	Chemical	Source ID	Results	Current MCL	UOM
B4I042103-I	09/03/2014	09/18/2014	NITRATE	EP-A	ND	10.000000	MG/L
B4I042102-I	09/03/2014	09/18/2014	NITRATE	EP-B	ND	10.000000	MG/L
B3K071901-I	11/07/2013	12/30/2013	ARSENIC	EP-A	0.0069000	0.0100000	MG/L
B3I241001	09/23/2013	10/14/2013	COPPER	DIST-A	ND	1.3000000	MG/L
B3I241001	09/23/2013	10/14/2013	LEAD	DIST-A	ND	0.0150000	MG/L
B3I241002	09/23/2013	10/14/2013	COPPER	DIST-A	0.0100000	1.3000000	MG/L
B3I241002	09/23/2013	10/14/2013	LEAD	DIST-A	ND	0.0150000	MG/L
B3I241003	09/23/2013	10/14/2013	COPPER	DIST-A	ND	1.3000000	MG/L
B3I241003	09/23/2013	10/14/2013	LEAD	DIST-A	ND	0.0150000	MG/L
B3I241004	09/23/2013	10/14/2013	COPPER	DIST-A	ND	1.3000000	MG/L
B3I241004	09/23/2013	10/14/2013	LEAD	DIST-A	ND	0.0150000	MG/L
B3I241005	09/23/2013	10/14/2013	COPPER	DIST-A	ND	1.3000000	MG/L
B3I241005	09/23/2013	10/14/2013	LEAD	DIST-A	ND	0.0150000	MG/L
B3I241006	09/23/2013	10/14/2013	COPPER	DIST-A	0.0240000	1.3000000	MG/L
B3I241006	09/23/2013	10/14/2013	LEAD	DIST-A	ND	0.0150000	MG/L
B3I241007	09/23/2013	10/14/2013	COPPER	DIST-A	ND	1.3000000	MG/L
B3I241007	09/23/2013	10/14/2013	LEAD	DIST-A	0.0020000	0.0150000	MG/L
B3I241008	09/23/2013	10/14/2013	COPPER	DIST-A	ND	1.3000000	MG/L
B3I241008	09/23/2013	10/14/2013	LEAD	DIST-A	ND	0.0150000	MG/L
B3I241009	09/23/2013	10/14/2013	COPPER	DIST-A	ND	1.3000000	MG/L
B3I241009	09/23/2013	10/14/2013	LEAD	DIST-A	ND	0.0150000	MG/L
B3I241010	09/23/2013	10/14/2013	COPPER	DIST-A	0.0240000	1.3000000	MG/L
B3I241010	09/23/2013	10/14/2013	LEAD	DIST-A	ND	0.0150000	MG/L
B3H011902-I	08/01/2013	09/12/2013	NITRATE	EP-A	ND	10.000000	MG/L
B3G112001-I	07/11/2013	01/09/2014	NITRATE	EP-B	ND	10.000000	MG/L
B2J310901-I	10/31/2012	12/20/2012	NITRATE	EP-A	ND	10.000000	MG/L
B2J310901-R	10/31/2012	12/14/2012	COMBINED RADIUM (-226 & -228)	EP-A	ND	5.0000000	PCI/L
B2J310901-R	10/31/2012	12/14/2012	COMBINED URANIUM	EP-A	ND	0.0300000	MG/L
B2J310901-R	10/31/2012	12/14/2012	GROSS ALPHA, EXCL. RADON & U	EP-A	ND	15.000000	PCI/L

B2J310901-S	10/31/2012	01/04/2013	1,2-DIBROMO-3-CHLOROPROPANE	EP-A	ND	0.0002000	MG/L
B2J310901-S	10/31/2012	01/04/2013	2,4,5-TP	EP-A	ND	0.0500000	MG/L
B2J310901-S	10/31/2012	01/04/2013	2,4-D	EP-A	ND	0.0700000	MG/L
B2J310901-S	10/31/2012	01/04/2013	ATRAZINE	EP-A	ND	0.0030000	MG/L
B2J310901-S	10/31/2012	01/04/2013	BENZO(A)PYRENE	EP-A	ND	0.0002000	MG/L
B2J310901-S	10/31/2012	01/04/2013	BHC-GAMMA	EP-A	ND	0.0002000	MG/L
B2J310901-S	10/31/2012	01/04/2013	CARBOFURAN	EP-A	ND	0.0400000	MG/L
B2J310901-S	10/31/2012	01/04/2013	CHLORDANE	EP-A	ND	0.0020000	MG/L
B2J310901-S	10/31/2012	01/04/2013	DALAPON	EP-A	ND	0.2000000	MG/L
B2J310901-S	10/31/2012	01/04/2013	DI(2-ETHYLHEXYL) ADIPATE	EP-A	ND	0.4000000	MG/L
B2J310901-S	10/31/2012	01/04/2013	DI(2-ETHYLHEXYL) PHTHALATE	EP-A	ND	0.0060000	MG/L
B2J310901-S	10/31/2012	01/04/2013	DINOSEB	EP-A	ND	0.0070000	MG/L
B2J310901-S	10/31/2012	01/04/2013	DIQUAT	EP-A	ND	0.0200000	MG/L
B2J310901-S	10/31/2012	01/04/2013	ENDOTHALL	EP-A	ND	0.1000000	MG/L
B2J310901-S	10/31/2012	01/04/2013	ENDRIN	EP-A	ND	0.0020000	MG/L
B2J310901-S	10/31/2012	01/04/2013	ETHYLENE DIBROMIDE	EP-A	ND	0.0000500	MG/L
B2J310901-S	10/31/2012	01/04/2013	GLYPHOSATE	EP-A	ND	0.7000000	MG/L
B2J310901-S	10/31/2012	01/04/2013	HEPTACHLOR	EP-A	ND	0.0004000	MG/L
B2J310901-S	10/31/2012	01/04/2013	HEPTACHLOR EPOXIDE	EP-A	ND	0.0002000	MG/L
B2J310901-S	10/31/2012	01/04/2013	HEXACHLOROBENZENE	EP-A	ND	0.0010000	MG/L
B2J310901-S	10/31/2012	01/04/2013	HEXACHLOROCYCLOPENTADIENE	EP-A	ND	0.0500000	MG/L
B2J310901-S	10/31/2012	01/04/2013	LASSO	EP-A	ND	0.0020000	MG/L
B2J310901-S	10/31/2012	01/04/2013	METHOXYCHLOR	EP-A	ND	0.0400000	MG/L
B2J310901-S	10/31/2012	01/04/2013	OXAMYL	EP-A	ND	0.2000000	MG/L
B2J310901-S	10/31/2012	01/04/2013	PENTACHLOROPHENOL	EP-A	ND	0.0010000	MG/L
B2J310901-S	10/31/2012	01/04/2013	PICLORAM	EP-A	ND	0.5000000	MG/L
B2J310901-S	10/31/2012	01/04/2013	SIMAZINE	EP-A	ND	0.0040000	MG/L
B2J310901-S	10/31/2012	01/04/2013	TOTAL POLYCHLORINATED BIPHENYLS (PCB)	EP-A	ND	0.0005000	MG/L
B2J310901-S	10/31/2012	01/04/2013	TOXAPHENE	EP-A	ND	0.0030000	MG/L
B2J310901-V	10/31/2012	11/29/2012	1,1,1-TRICHLOROETHANE	EP-A	ND	0.2000000	MG/L
B2J310901-V	10/31/2012	11/29/2012	1,1,2-TRICHLOROETHANE	EP-A	ND	0.0050000	MG/L
B2J310901-V	10/31/2012	11/29/2012	1,1-DICHLOROETHYLENE	EP-A	ND	0.0070000	MG/L
B2J310901-V	10/31/2012	11/29/2012	1,2,4-TRICHLOROBENZENE	EP-A	ND	0.0700000	MG/L
B2J310901-V	10/31/2012	11/29/2012	1,2-DICHLOROETHANE	EP-A	ND	0.0050000	MG/L
B2J310901-V	10/31/2012	11/29/2012	1,2-DICHLOROPROPANE	EP-A	ND	0.0050000	MG/L
B2J310901-V	10/31/2012	11/29/2012	BENZENE	EP-A	ND	0.0050000	MG/L

B2J310901-V	10/31/2012	11/29/2012	CARBON TETRACHLORIDE	EP-A	ND	0.0050000	MG/L
B2J310901-V	10/31/2012	11/29/2012	CHLOROBENZENE	EP-A	ND	0.1000000	MG/L
B2J310901-V	10/31/2012	11/29/2012	CIS-1,2-DICHLOROETHYLENE	EP-A	ND	0.0700000	MG/L
B2J310901-V	10/31/2012	11/29/2012	DICHLOROMETHANE	EP-A	ND	0.0050000	MG/L
B2J310901-V	10/31/2012	11/29/2012	ETHYLBENZENE	EP-A	ND	0.7000000	MG/L
B2J310901-V	10/31/2012	11/29/2012	O-DICHLOROBENZENE	EP-A	ND	0.6000000	MG/L
B2J310901-V	10/31/2012	11/29/2012	P-DICHLOROBENZENE	EP-A	ND	0.0750000	MG/L
B2J310901-V	10/31/2012	11/29/2012	STYRENE	EP-A	ND	0.1000000	MG/L
B2J310901-V	10/31/2012	11/29/2012	TETRACHLOROETHYLENE	EP-A	ND	0.0050000	MG/L
B2J310901-V	10/31/2012	11/29/2012	TOLUENE	EP-A	ND	1.0000000	MG/L
B2J310901-V	10/31/2012	11/29/2012	TRANS-1,2-DICHLOROETHYLENE	EP-A	ND	0.1000000	MG/L
B2J310901-V	10/31/2012	11/29/2012	TRICHLOROETHYLENE	EP-A	ND	0.0050000	MG/L
B2J310901-V	10/31/2012	11/29/2012	VINYL CHLORIDE	EP-A	ND	0.0020000	MG/L
B2J310901-V	10/31/2012	11/29/2012	XYLENES, TOTAL	EP-A	ND	10.000000	MG/L
B2J310902-I	10/31/2012	01/04/2013	ANTIMONY, TOTAL	EP-B	ND	0.0060000	MG/L
B2J310902-I	10/31/2012	01/04/2013	ARSENIC	EP-B	0.0066000	0.0100000	MG/L
B2J310902-I	10/31/2012	01/04/2013	BARIUM	EP-B	ND	2.0000000	MG/L
B2J310902-I	10/31/2012	01/04/2013	BERYLLIUM, TOTAL	EP-B	ND	0.0040000	MG/L
B2J310902-I	10/31/2012	01/04/2013	CADMIUM	EP-B	ND	0.0050000	MG/L
B2J310902-I	10/31/2012	01/04/2013	CHROMIUM	EP-B	ND	0.1000000	MG/L
B2J310902-I	10/31/2012	01/04/2013	CYANIDE	EP-B	ND	0.2000000	MG/L
B2J310902-I	10/31/2012	01/04/2013	FLUORIDE	EP-B	0.3980000	4.0000000	MG/L
B2J310902-I	10/31/2012	01/04/2013	MERCURY	EP-B	ND	0.0020000	MG/L
B2J310902-I	10/31/2012	01/04/2013	NICKEL	EP-B	ND	0.1000000	MG/L
B2J310902-I	10/31/2012	01/04/2013	NITRATE	EP-B	1.2100000	10.000000	MG/L
B2J310902-I	10/31/2012	01/04/2013	NITRATE-NITRITE	EP-B	1.2100000	10.000000	MG/L
B2J310902-I	10/31/2012		NITRITE	EP-B	ND	1.0000000	MG/L
B2J310902-I	10/31/2012	01/04/2013	SELENIUM	EP-B	ND	0.0500000	MG/L
B2J310902-I	10/31/2012	01/04/2013	SODIUM	EP-B	7.5300000		MG/L
B2J310902-I	10/31/2012	01/04/2013	THALLIUM, TOTAL	EP-B	ND	0.0020000	MG/L
B2J310902-R	10/31/2012	12/14/2012	COMBINED RADIUM (-226 & -228)	EP-B	ND	5.0000000	PCI/L
B2J310902-R	10/31/2012	12/14/2012	COMBINED URANIUM	EP-B	ND	0.0300000	MG/L
B2J310902-R	10/31/2012	12/14/2012	GROSS ALPHA, EXCL. RADON & U	EP-B	ND	15.000000	PCI/L
B2J310902-S	10/31/2012	01/04/2013	1,2-DIBROMO-3-CHLOROPROPANE	EP-B	ND	0.0002000	MG/L
B2J310902-S	10/31/2012	01/04/2013	2,4,5-TP	EP-B	ND	0.0500000	MG/L
B2J310902-S	10/31/2012	01/04/2013	2,4-D	EP-B	ND	0.0700000	MG/L
B2J310902-S	10/31/2012	01/04/2013	ATRAZINE	EP-B	ND	0.0030000	MG/L

B2J310902-S	10/31/2012	01/04/2013	BENZO(A)PYRENE	EP-B	ND	0.0002000	MG/L
B2J310902-S	10/31/2012	01/04/2013	BHC-GAMMA	EP-B	ND	0.0002000	MG/L
B2J310902-S	10/31/2012	01/04/2013	CARBOFURAN	EP-B	ND	0.0400000	MG/L
B2J310902-S	10/31/2012	01/04/2013	CHLORDANE	EP-B	ND	0.0020000	MG/L
B2J310902-S	10/31/2012	01/04/2013	DALAPON	EP-B	ND	0.2000000	MG/L
B2J310902-S	10/31/2012	01/04/2013	DI(2-ETHYLHEXYL) ADIPATE	EP-B	ND	0.4000000	MG/L
B2J310902-S	10/31/2012	01/04/2013	DI(2-ETHYLHEXYL) PHTHALATE	EP-B	ND	0.0060000	MG/L
B2J310902-S	10/31/2012	01/04/2013	DINOSEB	EP-B	ND	0.0070000	MG/L
B2J310902-S	10/31/2012	01/04/2013	DIQUAT	EP-B	ND	0.0200000	MG/L
B2J310902-S	10/31/2012	01/04/2013	ENDOTHALL	EP-B	ND	0.1000000	MG/L
B2J310902-S	10/31/2012	01/04/2013	ENDRIN	EP-B	ND	0.0020000	MG/L
B2J310902-S	10/31/2012	01/04/2013	ETHYLENE DIBROMIDE	EP-B	ND	0.0000500	MG/L
B2J310902-S	10/31/2012	01/04/2013	GLYPHOSATE	EP-B	ND	0.7000000	MG/L
B2J310902-S	10/31/2012	01/04/2013	HEPTACHLOR	EP-B	ND	0.0004000	MG/L
B2J310902-S	10/31/2012	01/04/2013	HEPTACHLOR EPOXIDE	EP-B	ND	0.0002000	MG/L
B2J310902-S	10/31/2012	01/04/2013	HEXACHLOROBENZENE	EP-B	ND	0.0010000	MG/L
B2J310902-S	10/31/2012	01/04/2013	HEXACHLOROCYCLOPENTADIENE	EP-B	ND	0.0500000	MG/L
B2J310902-S	10/31/2012	01/04/2013	LASSO	EP-B	ND	0.0020000	MG/L
B2J310902-S	10/31/2012	01/04/2013	METHOXYCHLOR	EP-B	ND	0.0400000	MG/L
B2J310902-S	10/31/2012	01/04/2013	OXAMYL	EP-B	ND	0.2000000	MG/L
B2J310902-S	10/31/2012	01/04/2013	PENTACHLOROPHENOL	EP-B	ND	0.0010000	MG/L
B2J310902-S	10/31/2012	01/04/2013	PICLORAM	EP-B	ND	0.5000000	MG/L
B2J310902-S	10/31/2012	01/04/2013	SIMAZINE	EP-B	ND	0.0040000	MG/L
B2J310902-S	10/31/2012	01/04/2013	TOTAL POLYCHLORINATED BIPHENYLS (PCB)	EP-B	ND	0.0005000	MG/L
B2J310902-S	10/31/2012	01/04/2013	TOXAPHENE	EP-B	ND	0.0030000	MG/L
B2J310902-V	10/31/2012	12/03/2012	1,1,1-TRICHLOROETHANE	EP-B	ND	0.2000000	MG/L
B2J310902-V	10/31/2012	12/03/2012	1,1,2-TRICHLOROETHANE	EP-B	ND	0.0050000	MG/L
B2J310902-V	10/31/2012	12/03/2012	1,1-DICHLOROETHYLENE	EP-B	ND	0.0070000	MG/L
B2J310902-V	10/31/2012	12/03/2012	1,2,4-TRICHLOROBENZENE	EP-B	ND	0.0700000	MG/L
B2J310902-V	10/31/2012	12/03/2012	1,2-DICHLOROETHANE	EP-B	ND	0.0050000	MG/L
B2J310902-V	10/31/2012	12/03/2012	1,2-DICHLOROPROPANE	EP-B	ND	0.0050000	MG/L
B2J310902-V	10/31/2012	12/03/2012	BENZENE	EP-B	ND	0.0050000	MG/L
B2J310902-V	10/31/2012	12/03/2012	CARBON TETRACHLORIDE	EP-B	ND	0.0050000	MG/L
B2J310902-V	10/31/2012	12/03/2012	CHLOROBENZENE	EP-B	ND	0.1000000	MG/L
B2J310902-V	10/31/2012	12/03/2012	CIS-1,2-DICHLOROETHYLENE	EP-B	ND	0.0700000	MG/L
B2J310902-V	10/31/2012	12/03/2012	DICHLOROMETHANE	EP-B	ND	0.0050000	MG/L
B2J310902-V	10/31/2012	12/03/2012	ETHYLBENZENE	EP-B	ND	0.7000000	MG/L

B2J310902-V	10/31/2012	12/03/2012	O-DICHLOROBENZENE	EP-B	ND	0.6000000	MG/L
B2J310902-V	10/31/2012	12/03/2012	P-DICHLOROBENZENE	EP-B	ND	0.0750000	MG/L
B2J310902-V	10/31/2012	12/03/2012	STYRENE	EP-B	ND	0.1000000	MG/L
B2J310902-V	10/31/2012	12/03/2012	TETRACHLOROETHYLENE	EP-B	ND	0.0050000	MG/L
B2J310902-V	10/31/2012	12/03/2012	TOLUENE	EP-B	ND	1.0000000	MG/L
B2J310902-V	10/31/2012	12/03/2012	TRANS-1,2-DICHLOROETHYLENE	EP-B	ND	0.1000000	MG/L
B2J310902-V	10/31/2012	12/03/2012	TRICHLOROETHYLENE	EP-B	ND	0.0050000	MG/L
B2J310902-V	10/31/2012	12/03/2012	VINYL CHLORIDE	EP-B	ND	0.0020000	MG/L
B2J310902-V	10/31/2012	12/03/2012	XYLENES, TOTAL	EP-B	ND	10.000000	MG/L
B1I011604-I	09/01/2011	10/01/2011	NITRATE	EP-A	ND	10.000000	MG/L
B1I011602-I	09/01/2011	10/01/2011	NITRATE	EP-B	ND	10.000000	MG/L
B0I092701-I	09/09/2010	11/13/2010	ANTIMONY, TOTAL	EP-A	ND	0.0060000	MG/L
B0I092701-I	09/09/2010	11/13/2010	ARSENIC	EP-A	0.0071000	0.0100000	MG/L
B0I092701-I	09/09/2010	11/13/2010	BARIUM	EP-A	ND	2.0000000	MG/L
B0I092701-I	09/09/2010	11/13/2010	BERYLLIUM, TOTAL	EP-A	ND	0.0040000	MG/L
B0I092701-I	09/09/2010	11/13/2010	CADMIUM	EP-A	ND	0.0050000	MG/L
B0I092701-I	09/09/2010	11/13/2010	CHROMIUM	EP-A	ND	0.1000000	MG/L
B0I092701-I	09/09/2010	11/13/2010	CYANIDE	EP-A	ND	0.2000000	MG/L
B0I092701-I	09/09/2010	11/13/2010	FLUORIDE	EP-A	0.1070000	4.0000000	MG/L
B0I092701-I	09/09/2010	11/13/2010	MERCURY	EP-A	ND	0.0020000	MG/L
B0I092701-I	09/09/2010	11/13/2010	NICKEL	EP-A	ND	0.1000000	MG/L
B0I092701-I	09/09/2010	11/13/2010	NITRATE	EP-A	ND	10.000000	MG/L
B0I092701-I	09/09/2010	11/13/2010	NITRATE-NITRITE	EP-A	ND	10.000000	MG/L
B0I092701-I	09/09/2010		NITRITE	EP-A	ND	1.0000000	MG/L
B0I092701-I	09/09/2010	11/13/2010	SELENIUM	EP-A	ND	0.0500000	MG/L
B0I092701-I	09/09/2010	11/13/2010	SODIUM	EP-A	7.9400000		MG/L
B0I092701-I	09/09/2010	11/13/2010	THALLIUM, TOTAL	EP-A	ND	0.0020000	MG/L
B0I092702-I	09/09/2010	10/26/2010	NITRATE	EP-B	ND	10.000000	MG/L
B0I092702A-I	09/09/2010	11/08/2010	ARSENIC	EP-B	ND	0.0100000	MG/L
B9I171302-I	09/17/2009	10/27/2009	NITRATE	EP-A	ND	10.000000	MG/L
B9I171302-S	09/17/2009	10/28/2009	1,2-DIBROMO-3-CHLOROPROPANE	EP-A	ND	0.0002000	MG/L
B9I171302-S	09/17/2009	10/28/2009	2,4,5-TP	EP-A	ND	0.0500000	MG/L
B9I171302-S	09/17/2009	10/28/2009	2,4-D	EP-A	ND	0.0700000	MG/L
B9I171302-S	09/17/2009	10/28/2009	ATRAZINE	EP-A	ND	0.0030000	MG/L
B9I171302-S	09/17/2009	10/28/2009	BENZO(A)PYRENE	EP-A	ND	0.0002000	MG/L
B9I171302-S	09/17/2009	10/28/2009	BHC-GAMMA	EP-A	ND	0.0002000	MG/L
B9I171302-S	09/17/2009	10/28/2009	CARBOFURAN	EP-A	ND	0.0400000	MG/L

B9I171302-S	09/17/2009	10/28/2009	CHLORDANE	EP-A	ND	0.0020000	MG/L
B9I171302-S	09/17/2009	10/28/2009	DALAPON	EP-A	ND	0.2000000	MG/L
B9I171302-S	09/17/2009	10/28/2009	DI(2-ETHYLHEXYL) ADIPATE	EP-A	ND	0.4000000	MG/L
B9I171302-S	09/17/2009	10/28/2009	DI(2-ETHYLHEXYL) PHTHALATE	EP-A	ND	0.0060000	MG/L
B9I171302-S	09/17/2009	10/28/2009	DINOSEB	EP-A	ND	0.0070000	MG/L
B9I171302-S	09/17/2009	10/28/2009	DIQUAT	EP-A	ND	0.0200000	MG/L
B9I171302-S	09/17/2009	10/28/2009	ENDOTHALL	EP-A	ND	0.1000000	MG/L
B9I171302-S	09/17/2009	10/28/2009	ENDRIN	EP-A	ND	0.0020000	MG/L
B9I171302-S	09/17/2009	10/28/2009	ETHYLENE DIBROMIDE	EP-A	ND	0.0000500	MG/L
B9I171302-S	09/17/2009	10/28/2009	GLYPHOSATE	EP-A	ND	0.7000000	MG/L
B9I171302-S	09/17/2009	10/28/2009	HEPTACHLOR	EP-A	ND	0.0004000	MG/L
B9I171302-S	09/17/2009	10/28/2009	HEPTACHLOR EPOXIDE	EP-A	ND	0.0002000	MG/L
B9I171302-S	09/17/2009	10/28/2009	HEXACHLOROBENZENE	EP-A	ND	0.0010000	MG/L
B9I171302-S	09/17/2009	10/28/2009	HEXACHLOROCYCLOPENTADIENE	EP-A	ND	0.0500000	MG/L
B9I171302-S	09/17/2009	10/28/2009	LASSO	EP-A	ND	0.0020000	MG/L
B9I171302-S	09/17/2009	10/28/2009	METHOXYCHLOR	EP-A	ND	0.0400000	MG/L
B9I171302-S	09/17/2009	10/28/2009	OXAMYL	EP-A	ND	0.2000000	MG/L
B9I171302-S	09/17/2009	10/28/2009	PENTACHLOROPHENOL	EP-A	ND	0.0010000	MG/L
B9I171302-S	09/17/2009	10/28/2009	PICLORAM	EP-A	ND	0.5000000	MG/L
B9I171302-S	09/17/2009	10/28/2009	SIMAZINE	EP-A	ND	0.0040000	MG/L
B9I171302-S	09/17/2009	10/28/2009	TOTAL POLYCHLORINATED BIPHENYLS (PCB)	EP-A	ND	0.0005000	MG/L
B9I171302-S	09/17/2009	10/28/2009	TOXAPHENE	EP-A	ND	0.0030000	MG/L
B9I171302-V	09/17/2009	10/28/2009	1,1,1-TRICHLOROETHANE	EP-A	ND	0.2000000	MG/L
B9I171302-V	09/17/2009	10/28/2009	1,1,2-TRICHLOROETHANE	EP-A	ND	0.0050000	MG/L
B9I171302-V	09/17/2009	10/28/2009	1,1-DICHLOROETHYLENE	EP-A	ND	0.0070000	MG/L
B9I171302-V	09/17/2009	10/28/2009	1,2,4-TRICHLOROBENZENE	EP-A	ND	0.0700000	MG/L
B9I171302-V	09/17/2009	10/28/2009	1,2-DICHLOROETHANE	EP-A	ND	0.0050000	MG/L
B9I171302-V	09/17/2009	10/28/2009	1,2-DICHLOROPROPANE	EP-A	ND	0.0050000	MG/L
B9I171302-V	09/17/2009	10/28/2009	BENZENE	EP-A	ND	0.0050000	MG/L
B9I171302-V	09/17/2009	10/28/2009	CARBON TETRACHLORIDE	EP-A	ND	0.0050000	MG/L
B9I171302-V	09/17/2009	10/28/2009	CHLOROBENZENE	EP-A	ND	0.1000000	MG/L
B9I171302-V	09/17/2009	10/28/2009	CIS-1,2-DICHLOROETHYLENE	EP-A	ND	0.0700000	MG/L
B9I171302-V	09/17/2009	10/28/2009	DICHLOROMETHANE	EP-A	ND	0.0050000	MG/L
B9I171302-V	09/17/2009	10/28/2009	ETHYLBENZENE	EP-A	ND	0.7000000	MG/L
B9I171302-V	09/17/2009	10/28/2009	O-DICHLOROBENZENE	EP-A	ND	0.6000000	MG/L
B9I171302-V	09/17/2009	10/28/2009	P-DICHLOROBENZENE	EP-A	ND	0.0750000	MG/L
B9I171302-V	09/17/2009	10/28/2009	STYRENE	EP-A	ND	0.1000000	MG/L

B9I171302-V	09/17/2009	10/28/2009	TETRACHLOROETHYLENE	EP-A	ND	0.0050000	MG/L
B9I171302-V	09/17/2009	10/28/2009	TOLUENE	EP-A	ND	1.0000000	MG/L
B9I171302-V	09/17/2009	10/28/2009	TRANS-1,2-DICHLOROETHYLENE	EP-A	ND	0.1000000	MG/L
B9I171302-V	09/17/2009	10/28/2009	TRICHLOROETHYLENE	EP-A	ND	0.0050000	MG/L
B9I171302-V	09/17/2009	10/28/2009	VINYL CHLORIDE	EP-A	ND	0.0020000	MG/L
B9I171302-V	09/17/2009	10/28/2009	XYLENES, TOTAL	EP-A	ND	10.000000	MG/L
C09090967002	09/17/2009	10/29/2009	COMBINED URANIUM	EP-A	ND	0.0300000	MG/L
B9I171301-I	09/17/2009	10/27/2009	NITRATE	EP-B	ND	10.000000	MG/L
B9I171301-S	09/17/2009	10/28/2009	1,2-DIBROMO-3-CHLOROPROPANE	EP-B	ND	0.0002000	MG/L
B9I171301-S	09/17/2009	10/28/2009	2,4,5-TP	EP-B	ND	0.0500000	MG/L
B9I171301-S	09/17/2009	10/28/2009	2,4-D	EP-B	ND	0.0700000	MG/L
B9I171301-S	09/17/2009	10/28/2009	ATRAZINE	EP-B	ND	0.0030000	MG/L
B9I171301-S	09/17/2009	10/28/2009	BENZO(A)PYRENE	EP-B	ND	0.0002000	MG/L
B9I171301-S	09/17/2009	10/28/2009	BHC-GAMMA	EP-B	ND	0.0002000	MG/L
B9I171301-S	09/17/2009	10/28/2009	CARBOFURAN	EP-B	ND	0.0400000	MG/L
B9I171301-S	09/17/2009	10/28/2009	CHLORDANE	EP-B	ND	0.0020000	MG/L
B9I171301-S	09/17/2009	10/28/2009	DALAPON	EP-B	ND	0.2000000	MG/L
B9I171301-S	09/17/2009	10/28/2009	DI(2-ETHYLHEXYL) ADIPATE	EP-B	ND	0.4000000	MG/L
B9I171301-S	09/17/2009	10/28/2009	DI(2-ETHYLHEXYL) PHTHALATE	EP-B	ND	0.0060000	MG/L
B9I171301-S	09/17/2009	10/28/2009	DINOSEB	EP-B	ND	0.0070000	MG/L
B9I171301-S	09/17/2009	10/28/2009	DIQUAT	EP-B	ND	0.0200000	MG/L
B9I171301-S	09/17/2009	10/28/2009	ENDOTHALL	EP-B	ND	0.1000000	MG/L
B9I171301-S	09/17/2009	10/28/2009	ENDRIN	EP-B	ND	0.0020000	MG/L
B9I171301-S	09/17/2009	10/28/2009	ETHYLENE DIBROMIDE	EP-B	ND	0.0000500	MG/L
B9I171301-S	09/17/2009	10/28/2009	GLYPHOSATE	EP-B	ND	0.7000000	MG/L
B9I171301-S	09/17/2009	10/28/2009	HEPTACHLOR	EP-B	ND	0.0004000	MG/L
B9I171301-S	09/17/2009	10/28/2009	HEPTACHLOR EPOXIDE	EP-B	ND	0.0002000	MG/L
B9I171301-S	09/17/2009	10/28/2009	HEXACHLOROBENZENE	EP-B	ND	0.0010000	MG/L
B9I171301-S	09/17/2009	10/28/2009	HEXACHLOROCYCLOPENTADIENE	EP-B	ND	0.0500000	MG/L
B9I171301-S	09/17/2009	10/28/2009	LASSO	EP-B	ND	0.0020000	MG/L
B9I171301-S	09/17/2009	10/28/2009	METHOXYCHLOR	EP-B	ND	0.0400000	MG/L
B9I171301-S	09/17/2009	10/28/2009	OXAMYL	EP-B	ND	0.2000000	MG/L
B9I171301-S	09/17/2009	10/28/2009	PENTACHLOROPHENOL	EP-B	ND	0.0010000	MG/L
B9I171301-S	09/17/2009	10/28/2009	PICLORAM	EP-B	ND	0.5000000	MG/L
B9I171301-S	09/17/2009	10/28/2009	SIMAZINE	EP-B	ND	0.0040000	MG/L
B9I171301-S	09/17/2009	10/28/2009	TOTAL POLYCHLORINATED BIPHENYLS (PCB)	EP-B	ND	0.0005000	MG/L

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ND = Not Detected at the Minimum Reporting Level Spreadsheet

Nitrate Samples - PWS ID: 00106 ---- PONDEROSA PINES WATER COMPANY

Sample ID	Sample Date	Receive Date	Analyte Name	Source Name	Source ID	Results	MCL	UOM
B4I042103-I	09/03/2014	09/18/2014	NITRATE	EP FOR WELL #2 (SOUTH)	EP-A	ND	10.0000	MG/L
B4I042102-I	09/03/2014	09/18/2014	NITRATE	EP FOR WELL #1 (NORTH)	EP-B	ND	10.0000	MG/L
B3H011902-I	08/01/2013	09/12/2013	NITRATE	EP FOR WELL #2 (SOUTH)	EP-A	ND	10.0000	MG/L
B3G112001-I	07/11/2013	01/09/2014	NITRATE	EP FOR WELL #1 (NORTH)	EP-B	ND	10.0000	MG/L
B2J310901-I	10/31/2012	12/20/2012	NITRATE	EP FOR WELL #2 (SOUTH)	EP-A	ND	10.0000	MG/L
B2J310902-I	10/31/2012	01/04/2013	NITRATE	EP FOR WELL #1 (NORTH)	EP-B	1.2100000	10.0000	MG/L
B2J310902-I	10/31/2012		NITRATE-NITRITE	EP FOR WELL #1 (NORTH)	EP-B	1.2100000	10.0000	MG/L
B1I011604-I	09/01/2011	10/01/2011	NITRATE	EP FOR WELL #2 (SOUTH)	EP-A	ND	10.0000	MG/L
B1I011602-I	09/01/2011	10/01/2011	NITRATE	EP FOR WELL #1 (NORTH)	EP-B	ND	10.0000	MG/L
B0I092701-I	09/09/2010	11/13/2010	NITRATE	EP FOR WELL #2 (SOUTH)	EP-A	ND	10.0000	MG/L
B0I092701-I	09/09/2010		NITRATE-NITRITE	EP FOR WELL #2 (SOUTH)	EP-A	ND	10.0000	MG/L
B0I092702-I	09/09/2010	10/26/2010	NITRATE	EP FOR WELL #1 (NORTH)	EP-B	ND	10.0000	MG/L
B9I171302-I	09/17/2009	10/27/2009	NITRATE	EP FOR WELL #2 (SOUTH)	EP-A	ND	10.0000	MG/L
B9I171301-I	09/17/2009	10/27/2009	NITRATE	EP FOR WELL #1 (NORTH)	EP-B	ND	10.0000	MG/L
B9H070602-I	08/11/2009	08/25/2009	NITRATE	EP FOR WELL #1 (NORTH)	EP-B	ND	10.0000	MG/L
B9H070604-I	08/06/2009	08/25/2009	NITRATE	EP FOR WELL #2 (SOUTH)	EP-A	ND	10.0000	MG/L
B8J022303-I	10/02/2008	10/23/2008	NITRATE	EP FOR WELL #2 (SOUTH)	EP-A	ND	10.0000	MG/L
B8J022302-I	10/02/2008	10/23/2008	NITRATE	EP FOR WELL #1 (NORTH)	EP-B	ND	10.0000	MG/L
B7I170601N	09/17/2007	10/09/2007	NITRATE	EP FOR WELL #2 (SOUTH)	EP-A	ND	10.0000	MG/L
B7I170602N	09/17/2007	10/09/2007	NITRATE	EP FOR WELL #1 (NORTH)	EP-B	ND	10.0000	MG/L
B6I071401	09/07/2006	09/19/2006	NITRATE	EP FOR WELL #2 (SOUTH)	EP-A	ND	10.0000	MG/L
B6I071404	09/07/2006	09/19/2006	NITRATE	EP FOR WELL #1 (NORTH)	EP-B	ND	10.0000	MG/L
50901-35	09/01/2005	10/06/2005	NITRATE	EP FOR WELL #2 (SOUTH)	EP-A	0.1000000	10.0000	MG/L

NB409364-I	09/16/2004	10/12/2004	NITRATE	EP FOR WELL #2 (SOUTH)	EP-A	ND	10.0000	MG/L
NB309417N	09/18/2003	10/07/2003	NITRATE	EP FOR WELL #2 (SOUTH)	EP-A	ND	10.0000	MG/L
NB309418N	09/18/2003	10/07/2003	NITRATE	EP FOR WELL #1 (NORTH)	EP-B	ND	10.0000	MG/L
20920-6I	09/19/2002	12/10/2002	NITRATE	EP FOR WELL #2 (SOUTH)	EP-A	0.1700000	10.0000	MG/L
20920-6I	09/19/2002	12/10/2002	NITRATE-NITRITE	EP FOR WELL #2 (SOUTH)	EP-A	0.1700000	10.0000	MG/L
20920-7I	09/19/2002	12/10/2002	NITRATE	EP FOR WELL #1 (NORTH)	EP-B	ND	10.0000	MG/L
20920-7I	09/19/2002	12/10/2002	NITRATE-NITRITE	EP FOR WELL #1 (NORTH)	EP-B	ND	10.0000	MG/L

Archived Nitrate Samples - PWS ID: 00106

	Sample Date	Receive Date	Analyte Name	Source Name	Source ID	Results	MCL
	09/20/01	10/12/01	Nitrate	WELL #2	AA	ND	10.0000
	09/20/01	10/12/01	Nitrate	WELL #1	BA	ND	10.0000
	10/12/00	10/23/00	Nitrate	WELL #2	AA	ND	10.0000
	10/12/00	10/23/00	Nitrate	WELL #1	BA	ND	10.0000
	08/09/99	12/27/99	Nitrate	WELL #2	AA	ND	10.0000
	08/09/99	12/27/99	Nitrate-Nitrite	WELL #2	AA	ND	10.0000
	08/09/99	12/27/99	Nitrate	WELL #1	BA	ND	10.0000
	08/09/99	12/27/99	Nitrate-Nitrite	WELL #1	BA	ND	10.0000
	08/27/98	09/10/98	Nitrate	WELL #2	AA	ND	10.0000
	08/27/98	09/10/98	Nitrate	WELL #1	BA	ND	10.0000
	09/26/97	03/23/98	Nitrate	WELL #2	AA	0.0600000	10.0000
	09/26/97	03/23/98	Nitrate	WELL #1	BA	0.0500000	10.0000
	05/15/96	08/14/96	Nitrate	WELL #2	AA	0.1000000	10.0000
	05/15/96	08/14/96	Nitrate	WELL #1	BA	0.0900000	10.0000
	03/22/95	04/03/95	Nitrate	WELL #2	AA	0.0900000	10.0000
	03/22/95	04/05/95	Nitrate	WELL #1	BA	0.0800000	10.0000
	09/07/94	09/16/94	Nitrate	WELL #2	AA	0.0800000	10.0000
	09/07/94	09/16/94	Nitrate	WELL #1	BA	0.0700000	10.0000
	09/01/93	01/05/94	Nitrate	WELL #2	AA	0.2000000	10.0000
	09/01/93	01/06/94	Nitrate	WELL #1	BA	0.5000000	10.0000
	04/14/93	03/08/94	Nitrate	WELL #2	AA	0.0900000	10.0000
	04/14/93	03/08/94	Nitrate	WELL #1	BA	0.0900000	10.0000
	06/09/92	07/14/92	Nitrate	EP FOR WELL #2	A	0.0800000	10.0000
	06/09/92	07/14/92	Nitrate	EP FOR WELL #1	B	0.0600000	10.0000
	01/31/91	03/01/91	Nitrate	EP FOR WELL #1	B	0.2700000	10.0000
	02/19/88	03/14/88	Nitrate	EP FOR WELL #1	B	0.0900000	10.0000
	08/26/85	08/26/85	Nitrate	EP FOR WELL #1	B	0.0700000	10.0000

A blank or a 0 in the MCL column indicates that a MCL has not been set for that chemical.

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PWSID: 00106
PWSName: **PONDEROSA PINES WATER COMPANY**
Status: A
System Type: C
Population: 874

Fact Sheets
Definitions
Public Notice
Alerts
Enforcements
Spreadsheet

Action Levels: Lead = 0.0155 mg/l Copper = 1.35 mg/l

Lead and Copper 90th Percentile Summary Results details for latest summary

Sample Date	Date Received	Sample Count	Duration	Lead (mg/l)	Copper (mg/l)
Sep 23, 2013 - Sep 23, 2013	Oct 14, 2013	10	3Y	0.0000	0.0240
Jul 08, 2010 - Jul 08, 2010	Jan 10, 2011	10	3Y	0.0000	0.0270
Sep 17, 2007 - Sep 17, 2007	Sep 25, 2007	10	3Y	0.0000	0.0150
Sep 16, 2004 - Sep 16, 2004	Oct 12, 2004	10	3Y	0.0000	0.0361
Jan 01, 1999 - Sep 25, 2001	Oct 09, 2001	10	3Y	0.0000	0.0370
Jan 01, 1998 - Aug 24, 1998	Sep 24, 1998	10	YR	0.0000	0.0385
Jan 01, 1996 - Sep 18, 1996	Dec 09, 1996	10	YR	0.0000	0.0230
Jan 01, 1995 - Jun 06, 1995	Sep 29, 1997	10	YR	0.0024	0.0320
Jan 01, 1994 - Jun 07, 1994	Jul 11, 1994	20	6M	0.0000	0.0310
Jul 01, 1993 - Sep 01, 1993	Dec 20, 1993	20	6M	0.0012	0.0320

More Info

Oregon Public Health
Drinking Water Data Online

PWS ID: 00106 ---- PONDEROSA PINES WATER COMPANY

For questions regarding these violations contact: DESCHUTES COUNTY ---- Jeff Freund ---- (541) 388-6563

Violations are displayed for the last 5 years only.
Group Abbreviations: SD = Significant Deficiency
Gray shading indicates return to compliance.

Return to default sort order
Hide Auto-RTC | *Show Determination Dates*

Click here to see public notices.

Violation History

Violation Number	Auto-RTC?	Monitoring Period Begin	End	Facility ID	Analyte Group	Violation Type - Analyte Count *Hide analytes for all violations*	Enforcement Action - Date *Show history*	Points
903097905	*N*	*Aug 09, 2014*	*Aug 26, 2014*		*SD*	*Deficiencies Not Corrected or Plan Not Received - 1*	*Returned To Compliance - Aug 26, 2014*	*5*

SYSTEM SCORE SUMMARY

Unaddressed Points:	0
Number of years the oldest violation has been unaddressed (*n*):	0
System Score:	**0**
Points under formal enforcement:	0
Points RTC'd:	5

For all compliance errors, please contact Chuck Michael, DWS Compliance Specialist, at 971-673-0420.

Click here for more information on system scores and how they are calculated, including the point values of specific violations.

Violation history last updated 10/29/2014, 4 hours ago.

For further information on this public water system, click on the area of interest below:

System Info :: Report for Lenders :: Alerts :: Violations :: Enforcements :: Contacts :: Site Visits :: Public Notice :: Plan Review
Coliform Summary :: Coliform Results :: Sampling Schedule for Coliform :: Groundwater/GWUDI Source Details
Chemical Group Summary :: Latest Chemical Results :: Entry Point Detects :: Single Analyte Results
Chemical Schedule Summary :: Chemical Schedule Details
Lead & Copper :: Corrosion Control (LCR) :: Nitrate :: Arsenic :: Radionuclides :: GWR 4-Log
DBPs :: TOC & Alkalinity :: DBP Sample Sites :: FANLs :: MRDL :: Turbidity :: SWTR :: RAA :: LRAA

Appendix I
Modeling Results - Existing System

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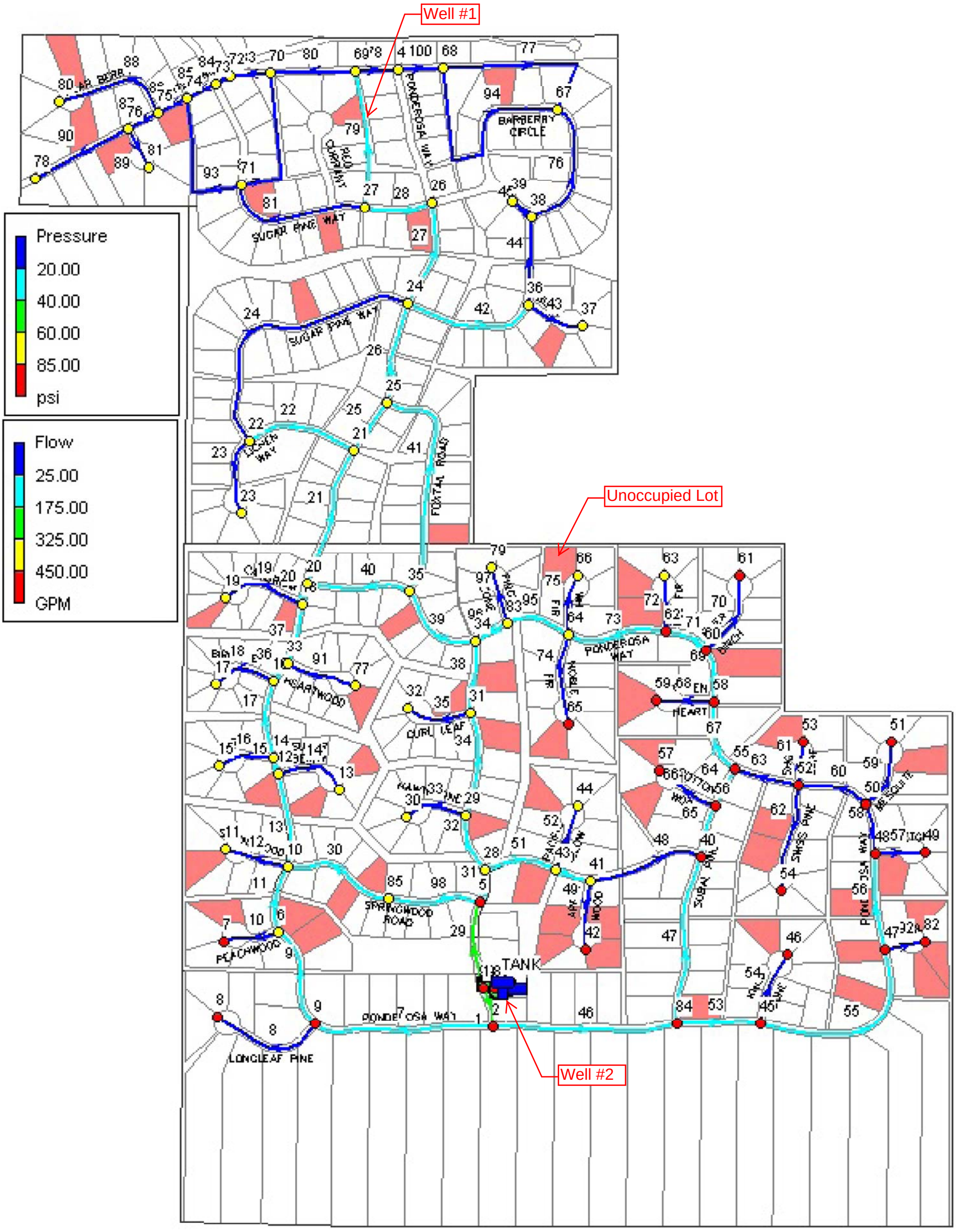

Modeling Results
Existing Conditions
Extended Period
Analysis at Peak

Ponderosa Pines
Water Demand Distribution

Junction	Phase	Existing		Buildout	
		Total Lots	Avg. Flow, gpm	Total Lots	Avg. Flow, gpm
2	4	21	7.3	21	7.3
6	3	1	0.3	3	1.0
7	3	5	1.7	6	2.1
8	4	8	2.8	8	2.8
11	3	7	2.4	8	2.8
13	2	6	2.1	8	2.8
14	2	1	0.3	1	0.3
15	2	7	2.4	8	2.8
17	2	10	3.5	10	3.5
19	2	11	3.8	13	4.5
21	1	11	3.8	11	3.8
22	1	22	7.6	22	7.6
23	1	5	1.7	5	1.7
24	1	14	4.9	15	5.2
25	1	16	5.6	17	5.9
26	0	5	1.7	6	2.1
27	0	8	2.8	9	3.1
28	3	3	1.0	4	1.4
29	2	3	1.0	4	1.4
30	2	9	3.1	9	3.1
31	3	3	1.0	5	1.7
32	2	8	2.8	9	3.1
35	2	17	5.9	18	6.3
36	1	7	2.4	7	2.4
37	1	7	2.4	8	2.8
38	0	10	3.5	10	3.5
39	0	2	0.7	2	0.7
40	4	9	3.1	9	3.1
42	3	3	1.0	7	2.4
44	3	7	2.4	8	2.8
45	4	4	1.4	4	1.4
46	4	9	3.1	10	3.5
47	4	6	2.1	8	2.8
48	4	3	1.0	4	1.4
49	4	5	1.7	6	2.1
51	4	5	1.7	6	2.1
53	4	3	1.0	4	1.4
54	4	8	2.8	10	3.5
57	4	5	1.7	7	2.4
58	4	2	0.7	3	1.0
59	4	4	1.4	5	1.7
61	4	7	2.4	7	2.4
62	4	2	0.7	2	0.7

Ponderosa Pines
Water Demand Distribution

Junction	Phase	Existing		Buildout	
		Total Lots	Avg. Flow, gpm	Total Lots	Avg. Flow, gpm
63	4	4	1.4	6	2.1
65	3	9	3.1	10	3.5
66	3	4	1.4	5	1.7
67	0	11	3.8	12	4.2
68	0	9	3.1	9	3.1
69	0	10	3.5	11	3.8
70	0	9	3.1	9	3.1
71	0	4	1.4	5	1.7
73	0	9	3.1	9	3.1
77	2	9	3.1	10	3.5
78	0	4	1.4	4	1.4
79	3	6	2.1	6	2.1
80	0	9	3.1	11	3.8
81	0	4	1.4	6	2.1
82	4	3	1.0	6	2.1
84	4	9	3.1	10	3.5
85	2	16	5.6	18	6.3
Totals		**438**	**152.1**	**494**	**171.5**

People/Lot	2
Max Daily Use, gpcd	250
Max Daily Use, gpcm	0.174

Network Table - Nodes at 19:00 Hrs

Node ID	Elevation ft	Base Demand GPM	Demand GPM	Pressure psi
Junc 1	4280	0	0.00	86.45
Junc 2	4279	7.3	18.61	86.39
Junc 5	4281	0	0.00	85.01
Junc 6	4283	0.3	0.77	84.03
Junc 7	4277	1.7	4.34	86.63
Junc 8	4273	2.8	7.14	88.57
Junc 9	4276	0	0.00	87.27
Junc 10	4283	0	0.00	83.92
Junc 11	4286	2.4	6.12	82.61
Junc 12	4286	0	0.00	82.23
Junc 13	4285	2.1	5.36	82.67
Junc 14	4286	0.3	0.77	82.17
Junc 15	4289	2.4	6.12	80.87
Junc 16	4288	0	0.00	81.05
Junc 17	4290	3.5	8.93	80.18
Junc 18	4290	0	0.00	79.98
Junc 19	4289	3.8	9.69	80.41
Junc 20	4290	0	0.00	79.94
Junc 21	4290	3.8	9.69	79.24
Junc 22	4292	7.6	19.38	78.00
Junc 23	4291	1.7	4.34	78.43
Junc 24	4285	4.9	12.49	80.94
Junc 25	4290	5.6	14.28	79.12
Junc 26	4287	1.7	4.34	79.89
Junc 27	4288	2.8	7.14	79.36

Node ID	Elevation ft	Base Demand GPM	Demand GPM	Pressure psi
Junc 28	4282	1	2.55	84.40
Junc 29	4282	1	2.55	84.22
Junc 30	4283	3.1	7.91	83.78
Junc 31	4281	1	2.55	84.40
Junc 32	4283	2.8	7.14	83.54
Junc 33	4288	0	0.00	80.98
Junc 34	4284	0	0.00	82.97
Junc 35	4287	5.9	15.05	81.34
Junc 36	4281	2.4	6.12	82.35
Junc 37	4287	2.4	6.12	79.74
Junc 38	4287	3.5	8.93	79.67
Junc 39	4287	0.7	1.78	79.66
Junc 40	4278	3.1	7.91	86.06
Junc 41	4281	0	0.00	84.79
Junc 42	4280	1	2.55	85.22
Junc 43	4281	0	0.00	84.80
Junc 44	4281	2.4	6.12	84.80
Junc 45	4272	1.4	3.57	88.70
Junc 46	4275	3.1	7.91	87.40
Junc 47	4273	2.1	5.36	88.16
Junc 48	4272	1	2.55	88.56
Junc 49	4272	1.7	4.34	88.55
Junc 50	4275	0	0.00	87.25
Junc 51	4272	1.7	4.34	88.54
Junc 52	4275	0	0.00	87.24
Junc 53	4272	1	2.55	88.54

Node ID	Elevation ft	Base Demand GPM	Demand GPM	Pressure psi
Junc 54	4275	2.8	7.14	87.23
Junc 55	4275	0	0.00	87.23
Junc 56	4278	0	0.00	85.98
Junc 57	4279	1.7	4.34	85.55
Junc 58	4278	0.7	1.78	85.82
Junc 59	4279	1.4	3.57	85.38
Junc 60	4279	0	0.00	85.32
Junc 61	4273	2.4	6.12	87.91
Junc 62	4279	0.7	1.78	85.27
Junc 63	4280	1.4	3.57	84.83
Junc 64	4280	0	0.00	84.75
Junc 65	4277	3.1	7.91	86.04
Junc 66	4281	1.4	3.57	84.31
Junc 67	4289	3.8	9.69	78.79
Junc 68	4292	3.1	7.91	77.50
Junc 69	4294	3.5	8.93	76.68
Junc 70	4295	3.1	7.91	76.16
Junc 71	4290	1.4	3.57	78.34
Junc 72	4296	0	0.00	75.70
Junc 73	4296	3.1	7.91	75.69
Junc 74	4298	0	0.00	74.82
Junc 75	4298	0	0.00	74.80
Junc 76	4295	0	0.00	76.09
Junc 77	4287	3.1	7.91	81.41
Junc 78	4288	1.4	3.57	79.12
Junc 79	4285	2.1	5.36	82.55

Node ID	Elevation ft	Base Demand GPM	Demand GPM	Pressure psi
Junc 80	4296	3.1	7.91	75.64
Junc 81	4297	1.4	3.57	75.16
Junc 82	4271	1	2.55	89.02
Junc 83	4283	0	0.00	83.41
Junc 84	4276	3.1	7.91	87.05
Junc 85	4282	5.6	14.28	84.45
Junc 86	4281	0	0.00	86.14
Junc 4	4293	0	0.00	77.09
Resvr 3	4156	#N/A	0.00	0.00
Tank TANK	4280	#N/A	-386.07	7.83

Network Table - Links at 19:00 Hrs

Link ID	Length ft	Diameter in	Flow GPM	Velocity fps
Pipe 1	311.64	6	197.84	2.24
Pipe 7	1407.64	6	79.87	0.91
Pipe 8	907.46	6	7.14	0.08
Pipe 9	809.34	6	72.73	0.83
Pipe 10	434.05	6	4.34	0.05
Pipe 11	535.36	6	67.63	0.77
Pipe 12	504.33	6	6.12	0.07
Pipe 13	729.49	6	108.44	1.23
Pipe 14	559.77	6	5.36	0.06
Pipe 15	130.87	6	103.09	1.17
Pipe 16	437.98	6	6.12	0.07
Pipe 17	614.11	6	96.20	1.09
Pipe 18	508.04	6	8.93	0.10
Pipe 19	673.02	6	9.69	0.11
Pipe 20	161.25	6	69.68	0.79
Pipe 21	1117.85	6	118.82	1.35
Pipe 22	883.77	4	33.31	0.85
Pipe 23	605.95	4	4.34	0.11
Pipe 24	2211.31	4	9.60	0.25
Pipe 25	446.15	6	75.82	0.86
Pipe 26	797.41	6	98.27	1.12
Pipe 27	847.79	6	67.18	0.76
Pipe 28	529.34	6	62.85	0.71
Pipe 29	690.66	6	188.23	2.14
Pipe 31	257.39	6	127.02	1.44

Link ID	Length ft	Diameter in	Flow GPM	Velocity fps
Pipe 32	475.10	6	91.06	1.03
Pipe 33	495.55	6	7.91	0.09
Pipe 34	818.42	6	80.61	0.91
Pipe 35	523.27	6	7.14	0.08
Pipe 36	178.07	6	87.28	0.99
Pipe 37	476.01	6	79.37	0.90
Pipe 38	571.84	6	70.92	0.80
Pipe 39	715.91	6	100.91	1.15
Pipe 40	820.23	6	49.14	0.56
Pipe 41	1796.78	4	36.73	0.94
Pipe 42	1046.12	4	28.19	0.72
Pipe 43	469.31	4	6.12	0.16
Pipe 44	690.21	4	15.95	0.41
Pipe 45	193.10	2	1.78	0.18
Pipe 46	1435.83	6	99.36	1.13
Pipe 47	1332.02	6	42.90	0.49
Pipe 48	910.71	6	-24.73	0.28
Pipe 49	544.06	6	2.55	0.03
Pipe 50	291.67	6	-27.28	0.31
Pipe 51	573.73	6	-33.40	0.38
Pipe 52	522.72	6	6.12	0.07
Pipe 53	658.74	6	48.55	0.55
Pipe 54	584.74	6	7.91	0.09
Pipe 55	1531.62	6	37.08	0.42
Pipe 56	765.00	6	29.17	0.33
Pipe 57	385.84	4	4.34	0.11

Link ID	Length ft	Diameter in	Flow GPM	Velocity fps
Pipe 58	399.66	6	22.29	0.25
Pipe 59	563.16	4	4.34	0.11
Pipe 60	558.36	6	17.95	0.20
Pipe 61	343.08	6	2.55	0.03
Pipe 62	839.60	6	7.14	0.08
Pipe 63	512.64	6	8.26	0.09
Pipe 64	335.31	6	-55.39	0.63
Pipe 65	409.72	6	-59.73	0.68
Pipe 66	512.80	6	4.34	0.05
Pipe 67	589.52	6	63.66	0.72
Pipe 68	442.40	6	3.57	0.04
Pipe 69	412.76	6	58.30	0.66
Pipe 70	683.64	6	6.12	0.07
Pipe 71	351.89	6	52.18	0.59
Pipe 72	439.63	6	3.57	0.04
Pipe 73	786.99	6	46.83	0.53
Pipe 74	712.10	6	7.91	0.09
Pipe 75	474.19	6	3.57	0.04
Pipe 76	1063.28	4	5.24	0.13
Pipe 77	1446.40	4	-2.36	0.06
Pipe 78	332.56	4	-12.36	0.32
Pipe 79	1072.09	6	38.11	0.43
Pipe 80	662.21	4	16.83	0.43
Pipe 81	1148.38	4	17.60	0.45
Pipe 82	1136.94	4	4.30	0.11
Pipe 83	315.90	4	13.22	0.34

Link ID	Length ft	Diameter in	Flow GPM	Velocity fps
Pipe 84	131.03	4	13.22	0.34
Pipe 85	250.51	4	5.31	0.14
Pipe 86	253.19	4	15.05	0.38
Pipe 87	260.79	4	7.14	0.18
Pipe 88	935.06	4	7.91	0.20
Pipe 89	332.99	2	3.57	0.36
Pipe 90	817.44	4	3.57	0.09
Pipe 91	554.23	6	7.91	0.09
Pipe 92	315.87	4	2.55	0.07
Pipe 93	1120.13	4	9.73	0.25
Pipe 94	1824.02	4	-2.09	0.05
Pipe 95	505.94	6	35.35	0.40
Pipe 96	290.75	6	30.00	0.34
Pipe 97	449.45	6	5.36	0.06
Pipe 30	872.51	6	-46.93	0.53
Pipe 98	734.83	6	-61.21	0.69
Pipe 99	85.63	8	386.07	2.46
Pipe 100	345.78	4	12.36	0.32
Pump 2	#N/A	#N/A	0.00	0.00
Pump 5	#N/A	#N/A	33.84	0.00
Pump 3	#N/A	#N/A	176.11	0.00
Pump 4	#N/A	#N/A	176.11	0.00

Appendix J
Modeling Results – Buildout

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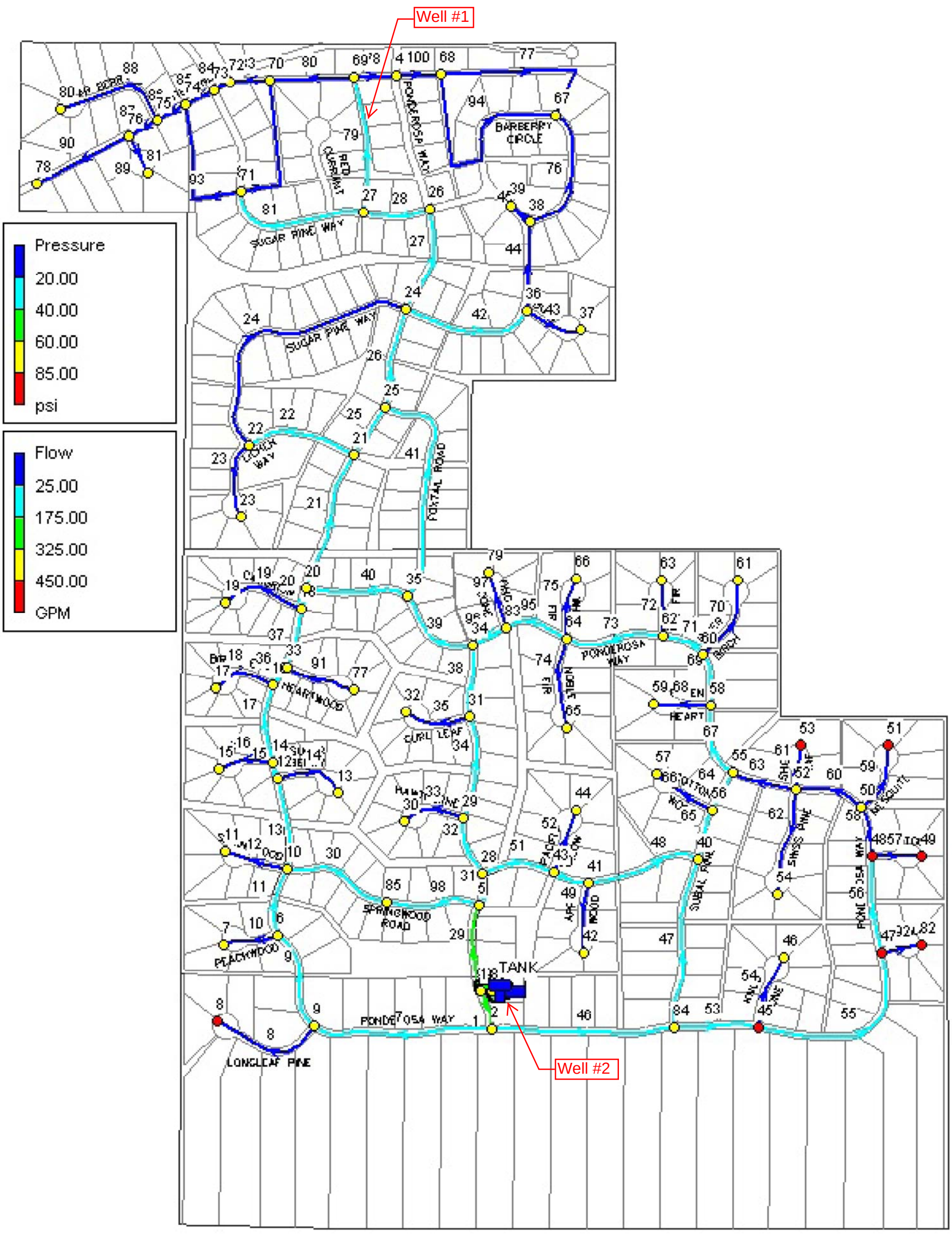

Modeling Results
Buildout Conditions
Extended Period
Analysis at Peak

Ponderosa Pines
Water Demand Distribution

Junction	Phase	Existing		Buildout	
		Total Lots	Avg. Flow, gpm	Total Lots	Avg. Flow, gpm
2	4	21	7.3	21	7.3
6	3	1	0.3	3	1.0
7	3	5	1.7	6	2.1
8	4	8	2.8	8	2.8
11	3	7	2.4	8	2.8
13	2	6	2.1	8	2.8
14	2	1	0.3	1	0.3
15	2	7	2.4	8	2.8
17	2	10	3.5	10	3.5
19	2	11	3.8	13	4.5
21	1	11	3.8	11	3.8
22	1	22	7.6	22	7.6
23	1	5	1.7	5	1.7
24	1	14	4.9	15	5.2
25	1	16	5.6	17	5.9
26	0	5	1.7	6	2.1
27	0	8	2.8	9	3.1
28	3	3	1.0	4	1.4
29	2	3	1.0	4	1.4
30	2	9	3.1	9	3.1
31	3	3	1.0	5	1.7
32	2	8	2.8	9	3.1
35	2	17	5.9	18	6.3
36	1	7	2.4	7	2.4
37	1	7	2.4	8	2.8
38	0	10	3.5	10	3.5
39	0	2	0.7	2	0.7
40	4	9	3.1	9	3.1
42	3	3	1.0	7	2.4
44	3	7	2.4	8	2.8
45	4	4	1.4	4	1.4
46	4	9	3.1	10	3.5
47	4	6	2.1	8	2.8
48	4	3	1.0	4	1.4
49	4	5	1.7	6	2.1
51	4	5	1.7	6	2.1
53	4	3	1.0	4	1.4
54	4	8	2.8	10	3.5
57	4	5	1.7	7	2.4
58	4	2	0.7	3	1.0
59	4	4	1.4	5	1.7
61	4	7	2.4	7	2.4
62	4	2	0.7	2	0.7

Ponderosa Pines
Water Demand Distribution

Junction	Phase	Existing		Buildout	
		Total Lots	Avg. Flow, gpm	Total Lots	Avg. Flow, gpm
63	4	4	1.4	6	2.1
65	3	9	3.1	10	3.5
66	3	4	1.4	5	1.7
67	0	11	3.8	12	4.2
68	0	9	3.1	9	3.1
69	0	10	3.5	11	3.8
70	0	9	3.1	9	3.1
71	0	4	1.4	5	1.7
73	0	9	3.1	9	3.1
77	2	9	3.1	10	3.5
78	0	4	1.4	4	1.4
79	3	6	2.1	6	2.1
80	0	9	3.1	11	3.8
81	0	4	1.4	6	2.1
82	4	3	1.0	6	2.1
84	4	9	3.1	10	3.5
85	2	16	5.6	18	6.3
Totals		**438**	**152.1**	**494**	**171.5**

People/Lot	2
Max Daily Use, gpcd	250
Max Daily Use, gpcm	0.174

Network Table - Nodes at 19:00 Hrs

Node ID	Elevation ft	Base Demand GPM	Demand GPM	Pressure psi
Junc 1	4280	0	0.00	83.88
Junc 2	4279	7.3	18.61	83.69
Junc 5	4281	0	0.00	82.17
Junc 6	4283	01	2.55	81.17
Junc 7	4277	2.1	5.36	83.77
Junc 8	4273	2.8	7.14	85.76
Junc 9	4276	0	0.00	84.46
Junc 10	4283	0	0.00	81.03
Junc 11	4286	2.8	7.14	79.73
Junc 12	4286	0	0.00	79.27
Junc 13	4285	2.8	7.14	79.70
Junc 14	4286	0.3	0.77	79.20
Junc 15	4289	2.8	7.14	77.90
Junc 16	4288	0	0.00	78.03
Junc 17	4290	3.5	8.93	77.16
Junc 18	4290	0	0.00	76.93
Junc 19	4289	4.5	11.48	77.35
Junc 20	4290	0	0.00	76.88
Junc 21	4290	3.8	9.69	76.10
Junc 22	4292	7.6	19.38	74.82
Junc 23	4291	1.7	4.34	75.25
Junc 24	4285	5.2	13.26	77.72
Junc 25	4290	5.9	15.05	75.96
Junc 26	4287	2.1	5.36	76.63
Junc 27	4288	3.1	7.91	76.08

Node ID	Elevation ft	Base Demand GPM	Demand GPM	Pressure psi
Junc 54	4275	3.5	8.93	84.26
Junc 55	4275	0	0.00	84.26
Junc 56	4278	0	0.00	83.03
Junc 57	4279	2.4	6.12	82.59
Junc 58	4278	1	2.55	82.83
Junc 59	4279	1.7	4.34	82.40
Junc 60	4279	0	0.00	82.32
Junc 61	4273	2.4	6.12	84.92
Junc 62	4279	0.7	1.78	82.27
Junc 63	4280	2.1	5.36	81.83
Junc 64	4280	0	0.00	81.74
Junc 65	4277	3.5	8.93	83.04
Junc 66	4281	1.7	4.34	81.31
Junc 67	4289	4.2	10.71	75.53
Junc 68	4292	3.1	7.91	74.24
Junc 69	4294	3.8	9.69	73.42
Junc 70	4295	3.1	7.91	72.98
Junc 71	4290	1.7	4.34	75.17
Junc 72	4296	0	0.00	72.55
Junc 73	4296	3.1	7.91	72.54
Junc 74	4298	0	0.00	71.68
Junc 75	4298	0	0.00	71.64
Junc 76	4295	0	0.00	72.93
Junc 77	4287	3.5	8.93	78.39
Junc 78	4288	1.4	3.57	75.96
Junc 79	4285	2.1	5.36	79.54

Network Table - Links at 19:00 Hrs

Link ID	Length ft	Diameter in	Flow GPM	Velocity fps
Pipe 1	311.64	6	223.49	2.54
Pipe 7	1407.64	6	90.15	1.02
Pipe 8	907.46	6	7.14	0.08
Pipe 9	809.34	6	83.01	0.94
Pipe 10	434.05	6	5.36	0.06
Pipe 11	535.36	6	75.10	0.85
Pipe 12	504.33	6	7.14	0.08
Pipe 13	729.49	6	119.42	1.36
Pipe 14	559.77	6	7.14	0.08
Pipe 15	130.87	6	112.28	1.27
Pipe 16	437.98	6	7.14	0.08
Pipe 17	614.11	6	104.38	1.18
Pipe 18	508.04	6	8.93	0.10
Pipe 19	673.02	6	11.48	0.13
Pipe 20	161.25	6	75.05	0.85
Pipe 21	1117.85	6	126.80	1.44
Pipe 22	883.77	4	35.09	0.90
Pipe 23	605.95	4	4.34	0.11
Pipe 24	2211.31	4	11.37	0.29
Pipe 25	446.15	6	82.02	0.93
Pipe 26	797.41	6	106.18	1.20
Pipe 27	847.79	6	74.49	0.85
Pipe 28	529.34	6	69.14	0.78
Pipe 29	690.66	6	213.83	2.43
Pipe 31	257.39	6	146.31	1.66

Link ID	Length ft	Diameter in	Flow GPM	Velocity fps
Pipe 58	399.66	6	22.87	0.26
Pipe 59	563.16	6	5.36	0.06
Pipe 60	558.36	6	17.52	0.20
Pipe 61	343.08	4	3.57	0.09
Pipe 62	839.60	6	8.93	0.10
Pipe 63	512.64	6	5.02	0.06
Pipe 64	335.31	6	-63.71	0.72
Pipe 65	409.72	6	-69.83	0.79
Pipe 66	512.80	6	6.12	0.07
Pipe 67	589.52	6	68.74	0.78
Pipe 68	442.40	6	4.34	0.05
Pipe 69	412.76	6	61.85	0.70
Pipe 70	683.64	6	6.12	0.07
Pipe 71	351.89	6	55.73	0.63
Pipe 72	439.63	6	5.36	0.06
Pipe 73	786.99	6	48.59	0.55
Pipe 74	712.10	6	8.93	0.10
Pipe 75	474.19	6	4.34	0.05
Pipe 76	1063.28	4	5.83	0.15
Pipe 77	1446.40	4	-2.59	0.07
Pipe 78	336.28	4	-12.78	0.33
Pipe 79	1072.09	6	33.24	0.38
Pipe 80	662.21	6	10.77	0.12
Pipe 81	1148.38	6	27.99	0.32
Pipe 82	1136.94	4	5.76	0.15
Pipe 83	315.90	6	8.62	0.10

Appendix K
Water Conservation Tips

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Item 10

Save Water 49 Ways: Indoors

Saving Water Indoors

1. Never put water down the drain when there may be another use for it such as watering a plant or garden, or cleaning.
2. Verify that your home is leak-free, because many homes have hidden water leaks. Read your water meter before and after a two-hour period when no water is being used. If the meter does not read exactly the same, there is a leak.
3. Repair dripping faucets by replacing washers. If your faucet is dripping at the rate of one drop per second, you can expect to waste 2,700 gallons per year which will add to the cost of water and sewer utilities, or strain your septic system.
4. Check for toilet tank leaks by adding food coloring to the tank. If the toilet is leaking, color will appear within 30 minutes. Check the toilet for worn out, corroded or bent parts. Most replacement parts are inexpensive, readily available and easily installed. (Flush as soon as test is done, since food coloring may stain tank.)
5. Avoid flushing the toilet unnecessarily. Dispose of tissues, insects and other such waste in the trash rather than the toilet.
6. Take shorter showers. Replace you showerhead with an ultra-low-flow version. Some units are available that allow you to cut off the flow without adjusting the water temperature knobs.
7. Use the minimum amount of water needed for a bath by closing the drain first and filling the tub only 1/3 full. Stopper tub before turning water. The initial burst of cold water can be warmed by adding hot water later.
8. Don't let water run while shaving or washing your face. Brush your teeth first while waiting for water to get hot, then wash or shave after filling the basin.
9. Retrofit all wasteful household faucets by installing aerators with flow restrictors.
10. Operate automatic dishwashers and clothes washers only when they are fully loaded or properly set the water level for the size of load you are using.
11. When washing dishes by hand, fill one sink or basin with soapy water. Quickly rinse under a slow-moving stream from the faucet.
12. Store drinking water in the refrigerator rather than letting the tap run every time you want a cool glass of water.
13. Do not use running water to thaw meat or other frozen foods. Defrost food overnight in the refrigerator or by using the defrost setting on your microwave.
14. Kitchen sink disposals require lots of water to operate properly. Start a compost pile as an alternate method of disposing food waste instead of using a garbage disposal. Garbage disposals also can add 50% to the volume of solids in a septic tank which can lead to malfunctions and maintenance problems.
15. Consider installing an instant water heater on your kitchen sink so you don't have to let the water run while it heats up. This will reduce heating costs for your household.
16. Insulate your water pipes. You'll get hot water faster plus avoid wasting water while it heats up.
17. Never install a water-to-air heat pump or air-conditioning system. Air-to-air models are just as efficient and do not waste water.
18. Install water softening systems only when necessary. Save water and salt by running the minimum amount of regenerations necessary to maintain water softness. Turn softeners off while on vacation.
19. Check your pump. If you have a well at your home, listen to see if the pump kicks on and off while the water is not in use. If it does, you have a leak.
20. When adjusting water temperatures, instead of turning water flow up, try turning it down. If the water is too hot or cold, turn the offender down rather than increasing water flow to balance the temperatures.
21. If the toilet flush handle frequently sticks in the flush position, letting water run constantly, replace or adjust it.

Save Water 49 Ways: Outdoor

Saving Water Outdoors

22. Don't over water your lawn. As a general rule, lawns only need watering every 5 to 7 days in the summer and every 10 to 14 days in the winter. A hearty rain eliminates the need for watering for as long as two weeks. Plant it smart, Xeriscape. Xeriscape landscaping is a great way to design, install and maintain both your plantings and irrigation system that will save you time, money and water. For your free copy of "Plant it Smart," an easy-to-use guide to Xeriscape landscaping, contact your Water Management District.
23. Water lawns during the early morning hours when temperatures and wind speed are the lowest. This reduces losses from evaporation.
24. Don't water your street, driveway or sidewalk. Position your sprinklers so that your water lands on the lawn and shrubs ... not the paved areas.
25. Install sprinklers that are the most water-efficient for each use. Micro and drip irrigation and soaker hoses are examples of water-efficient methods of irrigation.
26. Regularly check sprinkler systems and timing devices to be sure they are operating properly. It is now the law that "anyone who purchases and installs an automatic lawn sprinkler system MUST install a rain sensor device or switch which will override the irrigation cycle of the sprinkler system when adequate rainfall has occurred." To retrofit your existing system, contact an irrigation professional for more information.
27. Raise the lawn mower blade to at least three inches. A lawn cut higher encourages grass roots to grow deeper, shades the root system and holds soil moisture better than a closely-clipped lawn.
28. Avoid over fertilizing your lawn. The application of fertilizers increases the need for water. Apply fertilizers which contain slow-release, water-insoluble forms of nitrogen.
29. Mulch to retain moisture in the soil. Mulching also helps to control weeds that compete with plants for water.
30. Plant native and/or drought-tolerant grasses, ground covers, shrubs and trees. Once established, they do not need to be watered as frequently and they usually will survive a dry period without any watering. Group plans together based on similar water needs.
31. Do not hose down your driveway or sidewalk. Use a broom to clean leaves and other debris from these areas. Using a hose to clean a driveway can waste hundreds of gallons of water.
32. Outfit your hose with a shut-off nozzle which can be adjusted down to fine spray so that water flows only as needed. When finished, "Turn it Off" at the faucet instead of at the nozzle to avoid leaks.
33. Use hose washers between spigots and water hoses to eliminate leaks.
34. Do not leave sprinklers or hoses unattended. Your garden hoses can pour out 600 gallons or more in only a few hours, so don't leave the sprinkler running all day. Use a kitchen timer to remind yourself to turn it off.
35. Check all hoses, connectors and spigots regularly.
36. Consider using a commercial car wash that recycles water. If you wash your own car, park on the grass to do so.
37. Avoid the installation of ornamental water features (such as fountains) unless the water is recycled. Locate where there are mineral losses due to evaporation and wind drift.
38. If you have a swimming pool, consider a new water-saving pool filter. A single back flushing with a traditional filter uses from 180 to 250 gallons or more of water.
39. Create an awareness of the need for water conservation among your children. Avoid the purchase of recreational water toys which require a constant stream of water.
40. Be aware of and follow all water conservation and water shortage rules and restrictions which may be in effect in your area.
41. Encourage your employer to promote water conservation at the workplace. Suggest that water conservation be put in the employee orientation manual and training program.
42. Patronize businesses which practice and promote water conservation.
43. Report all significant water losses (broken pipes, open hydrants, errant sprinklers, abandoned free-flowing wells, etc.) to the property owner, local authorities or your Water Management District.
44. Encourage your school system and local government to help develop and promote a water conservation ethic among children and adults.
45. Support projects that will lead to an increased use of reclaimed waste water for irrigation and other uses.

46. Support efforts and programs to create a concern for water conservation among tourists and visitors to our state. Make sure your visitors understand the need for, and benefits of, water conservation.

47. Encourage your friends and neighbors to be part of a water conscious community. Promote water conservation in community newsletters, on bulletin boards and by example.

48. Conserve water because it is the right thing to do. Don't waste water just because someone else is footing the bill such as when you are staying at a hotel.

49. Try to do one thing each day that will result in a savings of water. Don't worry if the savings is minimal. Every drop counts. And every person can make a difference. So tell your friends, neighbors and co-workers to "Turn it Off" and "Keep it Off".

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Appendix L
Line Replacement Layout

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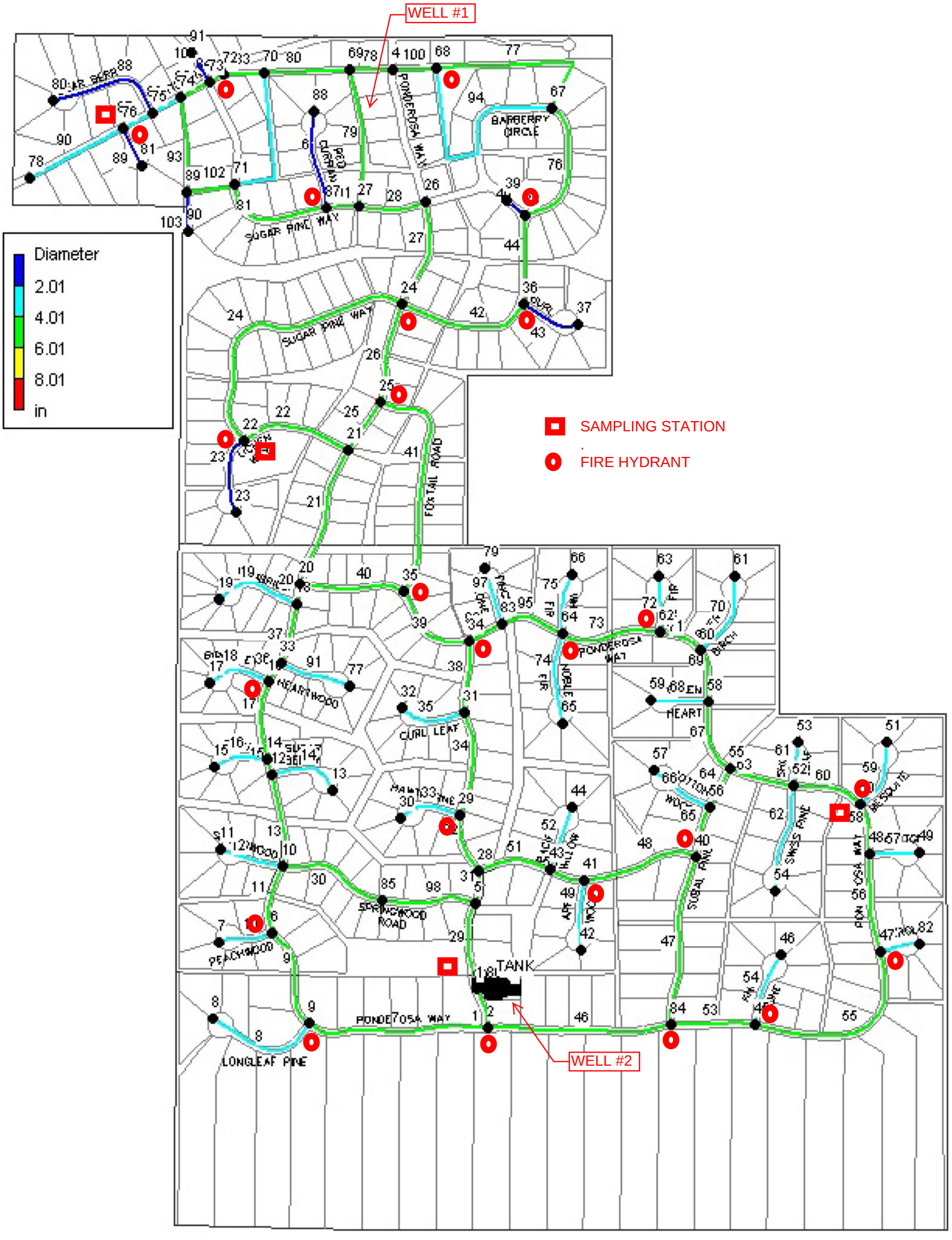

New Layout for Line Replacement