

## 5 Water Rights

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## SECTION 5

# Water Rights

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The water rights evaluation consisted of the following tasks:

- (A) Documenting the city's existing water rights
- (B) Evaluating the existing water rights to determine their reliability
- (C) Reviewing the feasibility of expanding/relocating the existing surface water withdrawals, either for the existing treatment plant location or an alternative location
- (D) Considering the possible development of groundwater; in particular, that related to the use of river bank wells
- (E) Developing recommended actions for the city to pursue to protect and maximize the value of its water rights

## Documentation of Existing Water Rights

The City of Lebanon holds four water rights: three for use of surface water from the South Santiam River, and one for the use of groundwater for irrigation of 5.5 acres. All three of the surface water rights identify the Santiam Canal intake structure as the authorized point of diversion. The three surface water rights provide for use of water for municipal purposes. Two were originally authorized for municipal use and one was changed from industrial use to municipal use by transfer Application T-6110. Two of the three surface water rights were confirmed and authorized as part of the adjudication and Circuit Court decree of pre-1909 water rights in the Santiam River Basin. The other surface water right was approved through OWRD's permit application process.

**Exhibit 5-1** is a summary of the four water rights. Copies of the four water rights and associated relevant documents are provided in **Appendix A**.

No special conditions are included in the city's four water rights; however, under Oregon Revised Statutes (ORS) 537.099 and Oregon Administrative Rules (OAR) Chapter 690, Division 85, all governmental entities are required to submit annual water use reports to OWRD.

A brief review of each of the four water rights follows.

### 1890 South Santiam River Right

Certificate: 49335 cancelled, confirming certificate pending  
Transfer T-6110

Priority date: December 31, 1890

Authorized Use: Municipal Use, 10 cfs, 6.5 mgd

Authorized Source: South Santiam River

EXHIBIT 5-1

City of Lebanon Water Rights Summary

No.	Source	Quantity (cfs)	Quantity (mgd)	Point of Diversion	Authorized Use	Priority Date	Permit No.	Certificate No.	Notes
1	South Santiam River	10.0	6.5	Headworks for Santiam Canal	Municipal	12/31/1890		T-6110	This pre-1909 water use was issued a water right certificate through the Santiam River Decree. Originally owned by Crown Zellerbach Corp. for industrial use. City obtained right in 1987 via a Quitclaim Deed. Use modified to municipal use through transfer application T-6110 in 1988.
2	South Santiam River	9.0	5.8	Headworks for Santiam Canal	Municipal	12/31/1900		49385	This pre-1909 water use was issued a water right certificate through the Santiam River Decree.
3	Well	0.07	0.05	Century Park	Irrigation	10/4/1968	G 4350	37744	Groundwater right, provides for irrigation of 5.5 acres
4	South Santiam River	18.0	11.6	Headworks for Santiam Canal	Municipal	7/12/1979	44389		An application for a 50-year extension of time was submitted to the OWRD on August 13, 2003. WRD responded to the City on January 3, 2005, requesting additional information by April 4, 2005, to continue processing the request.
	Total, Surface Rights	37.0	23.9						
	Total, Certificated Surface	19.0	12.3						
	Grand Total, All	37.1	24.0						

Notes:

1. Headworks for canal: NW1/4 NW1/4 within Cheadle DLC 55, Section 19, Township 12 South, Range 1 West, W.M., being 1430 feet north and 1050 east from the W1/4 corner Section 19.
2. Groundwater right location: SW1/4 of NE1/4 of Section 10, T12S R2W.

This pre-1909 water use was confirmed through the Santiam River decree issued by the Linn County Circuit Court. The decree is in the records of OWRD at Special Order Volume 18, page 15. OWRD issued the original certificate for this water right in August 1980. The original water right certificate was issued in the name of Crown Zellerbach for the purpose of manufacturing pulp and paper and was appurtenant to a specific industrial site. The authorized point of diversion is at the head of the Santiam Canal.

In 1987, the city obtained ownership of the water right via a quitclaim deed and in February 1988 submitted an application to OWRD to modify the water right. The transfer application, T-6110, was approved by OWRD in October 1996 and modified the use to municipal use and modified the authorized place of use to include the City of Lebanon boundaries. The Final Order approving the transfer did not place any new conditions on the water use but did cancel the underlying, original water right certificate (certificate 49335) and indicated a new “confirming” certificate will be issued upon receiving satisfactory proof of completion of the change. The Final Order can be found in OWRD’s Special Order Volume 50, page 786 and is included in Appendix A. Under OWRD’s Final Order, the authorized rate of diversion remains 10 cfs and there is no limitation on the total volume of water that can be diverted for beneficial, municipal use.

In April 1997, the city submitted a Final Proof Survey and Claim of Beneficial Use demonstrating the change requested in T-6110 was complete. To date, OWRD has not issued the confirming certificate.

### **1900 South Santiam River Right**

Certificate: 49385

Priority date: December 31, 1900

Authorized Use: Municipal Use, 9.0 cfs, 5.8 mgd

Authorized Source: South Santiam River

Similar to the water right evidenced by T-6110, this pre-1909 water use was confirmed through the Santiam River decree and was issued a water right certificate by OWRD in August 1980. The water right allows for the use of the South Santiam River for municipal use “in and around the City of Lebanon.” The authorized point of diversion is at the head of the Santiam Canal. The authorized rate of diversion is 9.0 cfs and there is no limitation on the total volume of water that can be diverted for beneficial, municipal use.

No modifications have been made to the water right and there are no specific conditions in the water right certificate.

### **1968 Groundwater Right**

Certificate: 37744

Permit: G-4350

Priority date: October 4, 1968

Authorized Use: Irrigation of 5.5 acres, 0.07 cfs, 0.05 mgd

Authorized Source: Groundwater

The city’s only groundwater right allows the use of a well located at Century Park for irrigation of 5.5 acres. This water right was developed and confirmed through OWRD’s

water right permit process. The application for a permit was submitted in October 1968, and following a survey of the use by OWRD a water right certificate was issued in October 1971.

The use of water under this water right is limited to an instantaneous rate of diversion of one-eightieth of a cfs per acre for a total of 0.07-cfs (31 gallons per minute) and an annual volume of 2-½ acre-feet of water per acre for a total volume 13.75 acre-feet. The use of water for irrigation is appurtenant to a 5.5-acre piece of property in the SW ¼ NE ¼ in Section 10, Township 12 S., Range 2W. A map of the water right location is in Appendix A. There are no specific conditions in the water right, as compared to contemporary groundwater rights that require metering, annual measurement of static water levels, and drawdown limitations.

No changes have been made to the water right since the certificate was issued in 1971.

### **1979 Permit for South Santiam River**

Permit: S-44389

Priority date: July 12, 1979

Authorized Use: Municipal Use, 18 cfs, 11.6 mgd

Authorized Source: South Santiam River

The city's water right permit S-44389 was originally granted to Pacific Power and Light in July 1979. The permit authorizes the use of up to 18 cfs, with no volume limitation for beneficial, municipal use, from the South Santiam River. The authorized point of diversion is the Santiam Canal and the authorized place of use includes land within the City of Lebanon boundaries. In 1986, the permit was assigned to the city. The assignment is recorded in OWRD Miscellaneous Records Volume 6, page 1659.

This water right is the city's only water right in permit status, meaning that, to date, the city has not demonstrated that the required works have been constructed and the water fully applied to the authorized beneficial use. When issued, the permit required construction be complete and full beneficial use occur by October 1982. This timeline has been extended by OWRD four times, with the last extension of time expiring in October 2001. In August 2003, under new administrative rules regarding permit extensions adopted by OWRD in November 2002, the city requested an extension of time for 50 years. Under the new rules, the city will be required to, among other things, demonstrate that the requested amount of time to put the water to full beneficial use is "reasonable." Also, under the provision of House Bill 3038 (2005 Legislative Session), OWRD must find that use of the undeveloped portion of the permit (the portion of the permit that is the difference between the authorized maximum rate specified in the permit and the maximum rate diverted for beneficial use) is conditioned to maintain the persistence of listed fish species (HB 3038, Section 1 (2) (c)).

## **Reliability of Existing Water Rights**

The City of Lebanon's municipal surface water rights were evaluated with respect to streamflow limitations and limitations that may arise as a result of water use regulation under Oregon's prior appropriation (priority date-based) legal system.

## Streamflow

In terms of streamflow reliability, the city's South Santiam River source is sound. According to a long-term U.S. Geological Survey (USGS) stream gage at Waterloo (gage 14187500 upstream from the city's point of diversion), the mean daily discharges that were met or exceeded 80 percent of the time, prior to the construction of the upstream Green Peter and Foster dams, ranged between 153 cfs in September to 2180 cfs in April. After construction of the upstream dams, mean daily discharges met or exceeded 80 percent of the time have ranged between 595 cfs in July to 3200 cfs in December.

## Water Right Priority Dates

The reliability of the city's water rights is subject to their relative seniority. Two of the city's surface water rights enjoy very senior priority dates – 1890 for 10 cfs under T-6110 and 1900 for 9.0 cfs under certificate 49385. (Transfer T-6110 has not been issued.) According to OWRD's web-based water right records, there are only four water rights on the South Santiam River, or downstream on the Santiam River with senior or equal priority dates. These water rights are all minor in nature and should not impact the reliability of the city's 1890 and 1900 water rights. However, the transfer T-6110 has yet to be approved.

According to OWRD's web-based water right records, the city's 1979 priority date permit is junior to over 150 water rights of record on the South Santiam River. Although the number of water rights is high, many are for small amounts of water. Notwithstanding the large number of senior water rights, according to Bill Ferber, OWRD Region Manager for the NW Region, there has not been a need to date to initiate water use regulation to satisfy existing water rights on the South Santiam or the Santiam Rivers (personal communication with Bill Ferber, November 10, 2005).

In addition to out-of-stream appropriations, the city's 1979 permit S-44389 is also junior in priority to three minimum perennial streamflows and one instream water right established on the Santiam and South Santiam Rivers. The three minimum perennial streamflows (MF 159, MF 167, and MF 168) are established by administrative rule in the Willamette Basin Program at OAR 690-502-0110 (2). The senior instream water right, which is a minimum perennial streamflow that has been converted to an instream water right under ORS 537.346, is identified by certificate 59529. The minimum perennial streamflows and the instream water right all have a priority date of June 22, 1964.

In the South Santiam River, minimum perennial streamflow MF 159 establishes protection of 170 cfs of natural flows plus 930 cfs of waters released from storage. Instream water right certificate 59529 establishes protection of 50 cfs of natural flows. However, these senior rights are established to protect flows above the city's authorized point of diversion - from the USGS gage at Waterloo (14187500) upstream and from the USGS gage near Cascadia (1418500) upstream - and would not impact the city's ability to divert water under permit S-44389.

In the mainstem Santiam River, minimum perennial streamflows MF 167 and 168 establish protection of 320 cfs of natural flows plus 1,570 cfs of waters released from storage and 330 cfs of natural flows plus 1,570 cfs of waters released from storage, respectively. MF 167 establishes instream flow protection between the mouth of the Santiam River and river

mile 1; MF 168 establishes instream flow protection from the USGS gage at Jefferson (14189000), upstream in the Santiam River.

According to long-term streamflow records for USGS gage 14189000 at Jefferson, prior to the construction of Detroit, Green Peter, and Foster dams mean daily discharges fell to as low as 309 cfs in August 1940. However, since construction of the upstream dams the mean daily discharge in the Santiam River has not dropped below 1000 cfs. In order for OWRD to initiate regulation of the city's 1979 permit in favor of MF 167 or MF 168, OWRD would need to determine that the natural flows in the Santiam River are below 320 cfs and all of the stored water being released into the public waters is allocated, either through contracts with the appropriate federal agency, and/or legally protected through a State of Oregon water right, which is extremely unlikely.

## Federal Projects

Over the last several years there have been on-going discussions regarding the federal authorization of the 13 Willamette River Basin storage projects. There have also been on-going Endangered Species Act consultations between the U.S. Army Corps of Engineers and the U.S. Fish and Wildlife Service and National Oceanic and Atmospheric Administration (NOAA Fisheries) regarding operation of the projects. One result of this consultation could be the legal (instream) protection of project water released to public waters. Because the South Santiam projects were constructed in the early 1960s, it is possible the protected stored water could receive a priority date senior to the city's permit S-44389. However, based on pre-storage project streamflow data described above, this legal protection of stored water would likely have little impact on the reliability of the city's permit S-44389.

## Feasibility of Expanding/Relocating Existing Surface Water Withdrawals and Using Groundwater for Future Water Supply

### Expansion of Use

The city's municipal water rights with 1890 and 1900 priority dates allow the diversion of 10 cfs and 9.0 cfs, respectively, from the South Santiam River without any annual volume limits. Although the city may not be currently using the entire rate authorized under these water rights, no authorization is required from OWRD to "expand" the use of water under the two rights so long as the use is within the terms and conditions of the water right.

According to information provided by the city, no beneficial use of water is currently taking place under permit S-44389, which authorizes the use of 18.0 cfs from the South Santiam River. Under current law, in order to "expand" the use of water under permit S-44389, the city must obtain a Final Order from OWRD approving an application for a time extension. To gain OWRD's approval, the city's extension application must, among other things, demonstrate that the amount of time requested to fully develop the water use is "reasonable." In addition, OWRD's Final Order must condition the permit to provide that

"...the holder may divert water beyond the maximum rate diverted for beneficial use before the extension only upon approval by the Department of

a water management and conservation plan.” (HB 3038, 2005 Legislative Session)

Under the provisions of House Bill 3038, the Department must also find that the undeveloped portion of the permit is conditioned to maintain the persistence of listed fish species. Federally listed fish species in the South Santiam River include Oregon Chub (*Oregonichthys crameri*), listed as Endangered under the federal Endangered Species Act (ESA), and Chinook Salmon (*Oncorhynchus tshawytscha*) and Steelhead (*O. mykiss*), both listed as Threatened under the federal ESA.

The city’s permit extension application for S-44389 was submitted in August 2003 and re-submitted with information requested by OWRD in April 2005. Administrative rules to implement HB 3038 were adopted in late 2005 by the Water Resources Commission, so it is likely OWRD will initiate processing municipal permit extension applications by mid-2006.

## Relocation

Relocation of the city’s “take-out” for its surface water rights within the Santiam Canal to accommodate alternative treatment plant locations would not require any authorizations from OWRD. Relocation of the city’s diversion point for its 1890 and 1900 municipal water rights (downstream from the existing location), either to a new stream channel diversion or to groundwater, may be possible under existing law.

A new diversion point from the South Santiam River (downstream from the existing location) may be accomplished under the provisions of ORS 540.510. Under this statute, the holder of a water right may make application to OWRD to change (or add ) a point of diversion so long as the change does not injure existing water rights or enlarge the existing water use. It is extremely unlikely that OWRD would find injury to existing water rights if the city proposed to move its diversion point downstream. Additionally, because the capacity of the Santiam Canal is approximately 220 cfs, it is extremely unlikely that OWRD would find that such a proposed change would result in enlargement of the water use. It is important to note that such a transfer would likely trigger extensive fish screening requirements and perhaps federal agency permit/review requirements at the new point of diversion.

The city could also propose to change its existing point of diversion to allow the appropriation of hydraulically connected groundwater, such as would be obtained through river bank wells. Under the provisions of ORS 540.531, such a transfer can be approved only if the following conditions are met:

- The new point of diversion appropriates water from an aquifer that is hydraulically connected to the authorized surface water source
- The change will not result in injury to existing water rights or enlarge the existing water use
- Use of the groundwater affects the surface water source similarly to the authorized point of diversion
- The groundwater withdrawals are within 500 feet of the surface water source and within 1000 feet upstream or downstream from the original point of diversion or a licensed



geologist submits evidence that demonstrates the use of groundwater meets all the criteria listed above. In other words, the 500 feet/1000 feet parameters are not absolute, but if the location is outside of those parameters the applicant must demonstrate that the proposed transfer meets the above tests, particularly the “similarly” test.

For the purposes of ORS 540.531, “similarly” means that the use of groundwater at the new point of diversion affects the surface water source specified in the water right and would result in stream depletion of at least 50 percent of the rate of appropriation within 10 days of continuous pumping (ORS 540.531(8) (b)).

Another noteworthy provision of the surface water to groundwater transfer statute is that if within 5 years of approving such a transfer OWRD finds that the transfer substantially interferes with existing groundwater users, the new point of diversion will be subordinate to any existing water right that has been injured. Also, the water right holder can return to the surface water point of diversion within 5 years with little effort. However, after 5 years, the water right holder can only move back to the surface water diversion upon OWRD concluding such a change would not cause injury to existing water rights.

Depending on the specifics of the location and associated hydrogeology, a surface water to groundwater transfer may be a feasible option for the city to pursue. One caution is that OWRD currently interprets the surface water to groundwater transfer statutes and rules to only allow a “change” in the point of diversion as opposed to an “additional” point of diversion, meaning the entire water right would need to be modified.

Finally, it is important to note that the city’s 1890 water right evidenced by T-6110 is not available for water right transfer until the certificate confirming the completed transfer is issued by OWRD. Similarly, the city’s permit S-44389 is not subject to modification until it receives a Final Order from OWRD approving the pending permit extension application. Once the extension is approved, the types of modifications described above can be accomplished under the provisions of a permit amendment (ORS 537.211).

## Groundwater as a Future Water Supply

The results of an evaluation of the potential for the city to develop a supplemental groundwater supply to help meet peak summer demands and provide an emergency backup to the city’s surface water supply are described in Chapter 7 of this report. It was concluded that the Shannon and Gill wellfield sites will not achieve the target supplemental groundwater production rate of 1200 gpm. In addition, it was found that other groundwater sites are not favorable for development. As described in this chapter, river bank wells appear to have the greatest potential for higher yield per well installed (or site developed), while minimizing water rights permitting and concern regarding contaminant plumes downtown.

## Conclusions and Recommended Actions

The city’s surface water source, the South Santiam River, provides reliable streamflow. The city’s certificated surface water rights (priority date 1890 and 1900) enjoy very senior priority dates and would not likely ever be regulated in favor of other water right holders. It is also unlikely that the city’s 1979 permit S-44389 would be regulated in favor of senior

water right holders and senior minimum perennial streamflows. However, the long-term utility of permit S-44389 is unknown until the city successfully completes the permit extension process currently before OWRD.

The following recommendations to protect and maximize the city's existing water rights are provided for the city's consideration. In addition to the specific recommendations below, the city should stay apprised of discussions regarding the federal storage projects in the Willamette River Basin to ensure protection of the city's water rights. The city should also continue to collect and annually report water use data as required by OWRD under ORS 537.099 and OAR Chapter 690, Division 85.

### Water Right T-6110 (1890, 10 cfs)

**Use OWRD's Reimbursement Authority to expedite the issuance of the confirming certificate.** The water right certificate confirming the changes approved in T-6110 (industrial use to municipal use) has not been issued by OWRD. As of the end of 2005, OWRD had a backlog of over 5,000 pending certificates and the timeline for certificate issuance could be several years. The city should consider having this certificate issued through OWRD's Reimbursement Authority program, which allows the water right holder to enter into an agreement with OWRD to have a contractor (in an established pool of approved contractors) process the Claim of Beneficial Use and develop the certificate. The water right holder pays the cost of this expedited process. To date, the cost for certificate issuance is typically less than \$1,500. Having the certificate issued will confirm the status of the water right, protect the right from any claims of forfeiture since municipal water rights are not subject to forfeiture per ORS 540.610(2), and provide an opportunity to make future modifications (such as a change in point of diversion) to this water right.

### Water Right Certificate 37744 (1968, 0.07 cfs for irrigation)

**Continue beneficial use.** To ensure the protection of this water right, continue to use the water right for beneficial irrigation use at least once every 5 years. To have data that may be needed in the future to modify this water right, the city should consider measuring water use and annual static water levels in the well.

### Water Right Permit S-44389 (1979, 18.0 cfs)

**Take necessary steps to secure a Final Order approving the city's permit extension application.** The city will not have legal access to the water under permit S-44389 until it receives a Final Order approving its permit extension application. The city should consider seeking professional guidance in negotiating the permit extension process with OWRD, especially with respect to the finding OWRD is required to make about the impact of the water use on listed fish species.

**Begin development of a Water Management and Conservation Plan.** Upon successful completion of its permit extension, the city will not be authorized to access any water under the permit until OWRD approves a Water Management and Conservation Plan submitted by the city under the provisions of OAR Chapter 690, Division 86. Using the Water System Master Plan data being developed, the city should consider beginning to develop its Water Management and Conservation Plan. The city's Water Management and Conservation Plan can be a valuable tool in the permit extension process by providing a comprehensive story

as to why the water is needed, and it provides an opportunity for the city to document existing and evaluate additional water management and conservation efforts.