File NR G4-33095
WR Doc ID 5846826

State of Washington
Department of Ecology
Office Of Columbia River
Report of Examination for Lake Roosevelt
Incremental Storage Releases Water Permit

PRIORITY DATE
06/04/2014

APPLICATION NUMBER
G4-33095

MAILING ADDRESS
DIRT HUGGER
ATTN: TYLER MILLER
4350 RIVER TRAIL WAY
THE DALLES OR 97058

SITE ADDRESS (IF DIFFERENT)

Quantity Authorized for Withdrawal or Diversion

WITHDRAWAL OR DIVERSION RATE	UNITS	ANNUAL QUANTITY (AF/YR)
50	GPM	12

Purpose

PURPOSE WITHDRAWAL OR DIVERSION RATE	WITHDRAWAL OR DIVERSION RATE	ANNUAL QUANTITY (AF/YR)	PERIOD OF USE (mm/dd)
Commercial and Industrial	50 GPM	12	01/01 - 12/31

Source Location

COUNTY	WATERBODY	TRIBUTARY TO	WATER RESOURCE INVENTORY AREA
KLICKITAT	GROUNDWATER		30-KLICKITAT

SOURCE FACILITY/DEVICE	PARCEL	WELL TAG	TWP	RNG	SEC	QQ Q	LATITUDE	LONGITUDE
Proposed Well	02132300000500		02N.	13E.W.M.	23	SWSW	45.6364	-121.15121
							Datum: NAD83/WGS84	

Place of Use (See attached Map)

PARCELS (NOT LISTED FOR SERVICE AREAS)
02132300000500

LEGAL DESCRIPTION OF AUTHORIZED PLACE OF USE
Portion of Lot 53 of Dallas Industrial Park Region located in the SW¼ of the SW¼ in Section 23, Township 02N., Range 13E.W.M., Klickitat County, WA.

Proposed Works

A well completed with 50 gpm capacity will pump into a retention pond to use at the compost facility for industrial and commercial purposes. A total quantity of 12 ac-ft/yr will be used to maintain moisture in the compost.

Development Schedule

BEGIN PROJECT	COMPLETE PROJECT	PUT WATER TO FULL USE
March 1, 2015	March 1, 2016	March 1, 2025

Measurement of Water Use

How often must water use be measured?	Monthly
How often must water use data be reported to Ecology?	Annually (Jan 31)
What volume should be reported?	Total Annual Volume & Total Monthly Volume
What rate should be reported?	Annual Peak Rate of Withdrawal (gpm)

Provisions

Well Depth

The well to be drilled under this authorization must be completed in the first water bearing zone (or zones) encountered that is capable of producing the quantity of water authorized. The completed depth of the well shall be no deeper than 300 feet.

Water Service Contract

Use of water under this permit or certificate is contingent upon the applicant's compliance with a water service contract with Ecology for recovery of costs associated with the Lake Roosevelt Incremental Storage Releases Program. Failure to comply with the terms of the water service contract will result in cancellation of the permit or revocation of the certificate.

Wells, Well Logs and Well Construction Standards

All wells constructed in the state shall meet the construction requirements of WAC 173-160 titled "Minimum Standards for the Construction and Maintenance of Wells" and RCW 18.104 titled "Water Well Construction". Any well that is unusable, abandoned, or whose use has been permanently discontinued, or which is in such disrepair that its continued use is impractical or is an environmental, safety or public health hazard shall be decommissioned.

All wells shall be tagged with a Department of Ecology unique well identification number. If you have an existing well and it does not have a tag, please contact the well-drilling coordinator at the regional Department of Ecology office issuing this decision. This tag shall remain attached to the well. All water measuring reports submitted to Ecology must reference this tag number.

Installation and maintenance of an access port as described in WAC 173-160- 291(3) is required.

Measurements, Monitoring, Metering and Reporting

An approved measuring device must be installed and maintained for each of the sources identified by this water right in accordance with the rule "Requirements for Measuring and Reporting Water Use", WAC 173-173, which describes the requirements for data accuracy, device installation and operation, and information reporting. It also allows a water user to petition the Department of Ecology for modifications to some of the requirements.

Ecology is requiring the recording and reporting of meter data as described above to collect seasonal information for water resource planning and compliance.

Recorded water use data shall be submitted via the Internet. To set up an Internet reporting account, contact the Central Regional Office. If you do not have Internet access, you can still submit hard copies by contacting the Central Regional Office for forms to submit your water use data.

Easement and Right-of-Way
The water source and/or water transmission facilities are not wholly located upon land owned by the applicant. Issuance of a water right change authorization by this department does not convey a right of access to, or other right to use, land which the applicant does not legally possess. Obtaining such a right is a private matter between applicant and owner of that land.

Water Use Efficiency
The water right holder is required to maintain efficient water delivery systems and use of up-to-date water conservation practices consistent with RCW 90.03.005.

Schedule and Inspections
Department of Ecology personnel, upon presentation of proper credentials, shall have access at reasonable times, to the project location, and to inspect at reasonable times, records of water use, wells, diversions, measuring devices and associated distribution systems for compliance with water law.

Finding of Facts

Upon reviewing the investigator's report, I find all facts, relevant and material to the subject application, have been thoroughly investigated. Furthermore, I concur with the investigator that water is available from the source in question; that there will be no impairment of existing rights; that the purpose(s) of use are beneficial; and that there will be no detriment to the public interest.
Therefore, I ORDER approval of Application No. G4-33095, subject to existing rights and the provisions specified above.

Your Right To Appeal

You have a right to appeal this Order to the Pollution Control Hearings Board (PCHB) within 30 days of the date of receipt of this Order. The appeal process is governed by Chapter 43.21B RCW and Chapter 371-08 WAC. "Date of receipt" is defined in RCW 43.21B.001(2).

To appeal you must do the following within 30 days of the date of receipt of the Order.

File your appeal and a copy of this Order with the PCHB (see addresses below). Filing means actual receipt by the PCHB during regular business hours.

- Serve a copy of your appeal and this Order on Ecology in paper form - by mail or in person. (See addresses below.) E-mail is not accepted.
- You must also comply with other applicable requirements in Chapter 43.21B RCW and Chapter 371-08 WAC.

Street Addresses	Mailing Addresses
Department of Ecology Attn: Appeals Processing Desk 300 Desmond Drive SE Lacey, WA 98503 **Pollution Control Hearings Board** 1111 Israel RD SW Ste 301 Tumwater, WA 98501	**Department of Ecology** Attn: Appeals Processing Desk PO Box 47608 Olympia, WA 98504-7608 **Pollution Control Hearings Board** PO Box 40903 Olympia, WA 98504-0903

Signed at Yakima, Washington, this 8th day of January 2015.

Mark C. Schuppe, Operations Manager

For additional information, visit the Environmental Hearings Office Website: http://www.eho.wa.gov. To find laws and agency rules visit the Washington State Legislature Website: http://www1.leg.wa.gov/CodeReviser.

INVESTIGATOR'S REPORT

Application for Water Right -- Dirt Hugger
Water Right Control Number G4-33095
Praveena Allena, Department of Ecology

BACKGROUND

Description and Purpose of Proposed Application

The Washington State Department of Ecology (Ecology) accepted Water Right Application S4-33095 on August 12, 2013, submitted by Dirt Hugger. In July 2013, the applicant was notified of the availability of mitigation water developed by the Office of Columbia River as part of the Lake Roosevelt Incremental Storage Releases Program (Program) during pre-application consultation with Trevor Hutton. On August 27, 2013, the applicant indicated their intent to receive water under the Program.

In the original application, the applicant proposed to divert surface water from Spearfish Lake at a rate of 1.0 cubic feet per second (cfs) and an annual volume of 6.0 acre-feet per year (ac-ft/yr) for compost manufacturing purposes. Later, on February 12, 2014, the applicant requested to amend the application with a new instantaneous rate (Q_i), annual quantity (Q_a) and point of diversion (Joe's Lake). On June 4, 2014, due to easement concerns for the site, the applicant requested to amend the revised application with a new Q_i and point of withdrawal (surface to ground). These final changes resulted in a new priority date of June 4, 2014, and a new water right control number G4-33095. The applicant has been notified of the changes to the application. Attributes of the amended application are presented below in Tables 1 and 2.

Lands covered by the proposed place of use and point of withdrawal are owned by the Port of Klickitat (Parcel No. 02132300000500), Klickitat County, WA. The Port of Klickitat has agreed to lease the portion of the property and will sign the agreement, provided, that the applicant obtain necessary approvals from various agencies, for example, approval of a water right permit from Ecology.

The proposed water use is associated with industrial water supply for a compost manufacturing facility. This project requests to use 12.0 ac-ft/yr and would eventually expand the facility to produce 50,000 tons of compost every year over the next 10 years.

Table 1 Application Summary

Name	Dirt Hugger
Priority Date	06/04/2014
Instantaneous Rate	50 gpm
Annual Quantity	12 ac-ft/yr
Purpose(s) of Use	Industrial
Period of Use	Year-round
Place(s) of Use	SW¼SW¼, Sec 23, T.02N., R. 13E.W.M.

Table 2 Proposed Sources of Withdrawal or Diversion

Source Name	Parcel	WellTag	Twp	Rng	Sec	QQ Q	Latitude	Longitude
Well	02132300000500		02N.	13E.W.M.	23	SW SW	45.6364	-121.15121*

***- Proposed well location**

Legal Requirements for Approval of Appropriation of Water

Chapters 90.03 and 90.44 RCW authorize the appropriation of public water for beneficial use and describe the process for obtaining water rights. Laws governing the water right permitting process are contained in RCW 90.03.250 through 90.03.340 and RCW 90.44.050. In accordance with RCW 90.03.290, determinations must be made on the following four criteria in order for an application for a water right to be approved:

- Water must be available
- There must be no impairment of existing rights
- The water use must be beneficial
- The water use must not be detrimental to the public interest

Public Notice

RCW 90.03.280 requires that notice of a water right application be published once a week, for two consecutive weeks, in a newspaper of general circulation in the county or counties where the water is to be stored, diverted, and used. Notice of this application was published in the Goldendale Sentinel during the weeks of July 16 and 24, 2014. There were no protests received on this proposal.

Consultation with the Washington Department of Fish and Wildlife

Ecology must give notice to the Washington Department of Fish and Wildlife (WDFW) of applications to divert, withdraw or store water (RCW 77.57.020).

On September 8, 2014, Ecology requested WDFW to provide comments on the proposed compost facility quantities. On September 24, 2014, Ecology received a comment letter from WDFW regarding this application. WDFW has no objection for approval of the current proposal on the application.

Consultation under WAC 173-563-020

Under WAC 173-563-020(4), consultation is required before issuance of new Columbia River water right permits:

> *The instream flows established and implemented by this chapter for instream and out-of-stream uses, and the average weekly flows applied by this chapter to out-of-stream uses do not apply to any application for water from the main stem Columbia River on which a decision is made by the department of ecology on or after July 27, 1997. Any water right application considered for approval or denial after that date will be evaluated for possible impacts on fish and existing water rights. The department will consult with appropriate local, state, and federal agencies and Indian tribes in making this evaluation. Any permit which is then approved for the use of such waters will be, if deemed necessary, subjected to instream flow protection or mitigation conditions determined on a case-by-case basis through the evaluation conducted with the agencies and tribes.*

On December 14, 2009, Ecology contacted local, state, and federal agencies and Indian tribes requesting consultation and comments on issuing new municipal and industrial permits from the Columbia River mitigated by 13,527 acre-feet of water under the Program. On November 5, 2010, Ecology consulted with local, state, and federal agencies and Indian tribes again to update the quantity of water released, to 37,500 acre-feet for municipal/industrial uses and associated instream releases.

From these consultations, Ecology received written responses from the WDFW, Bonneville Power Administration, U.S. Fish and Wildlife Service, Confederated Tribes of the Colville Reservation, the Confederated Tribes of the Umatilla Indian Reservation, and the United States Forest Service. Ecology

also had several meetings with stakeholders, including the Columbia River Policy Advisory Group (PAG) where it received oral comments.

Copies of the written comments received are available in the file and PAG meeting notes are available online at: http://www.ecy.wa.gov/programs/wr/cwp/cr_pag.html. The comments generally identified that the Program was adequate mitigation for up to 25,000 acre-feet of water for new municipal, multiple domestic and industrial permits.

State Environmental Policy Act (SEPA)

Pursuant to the State Environmental Policy Act (SEPA) (Chapter 43.21C RCW) and the SEPA Rules (Chapter 197-11 WAC), the Program was addressed in the Final Programmatic Environmental Impact Statement (FPEIS) for the Columbia River Management Plan. A Final Supplemental Environmental Impact Statement (FSEIS) was released on August 29, 2008 and an Addendum to the FSEIS was released on December 29, 2009; both documents address the Program in detail. On June 12, 2009, the United States Bureau of Reclamation (Reclamation) issued an Environmental Assessment (EA) and Finding of No Significant Impact (FONSI) for the project under the National Environmental Policy Act.

The above described SEPA Documents are available online:
FPEIS - http://www.ecy.wa.gov/programs/wr/cwp/eis.html
FSEIS & FSEIS Addendum - http://www.ecy.wa.gov/programs/wr/cwp/cr_lkroos.html
EA & FONSI - http://www.ecy.wa.gov/programs/wr/cwp/cr_lkroos_envirostudies.html.

Project Specific SEPA Compliance

A water right application is subject to a SEPA threshold determination (i.e., an evaluation whether there are likely to be significant adverse environmental impacts) if any one of the following conditions are met:

- It is a surface water right application for more than 1 cubic foot per second (cfs). If the project is for agricultural irrigation, the threshold is increased to 50 cfs, so long as the project will not receive public subsidies;
- It is a groundwater right application for more than 2,250 gallons per minute (gpm);
- It is an application combined with other water right applications for the same project and exceeds the amounts above;
- It is a part of a larger proposal that is subject to SEPA for other reasons (e.g., the need to obtain other permits that are not exempt from SEPA);
- It is part of a series of exempt actions that, considered together, trigger the need to do a threshold determination, as defined under WAC 197-11-305.

Even though the proposed water quantity did not trigger SEPA, the entire project required a SEPA threshold determination. The Klickitat County Health Department is the lead for SEPA determination on compost facility project. The applicant has submitted an environmental checklist on December 20, 2013, to the county health department for their review. On January 17, 2014, Klickitat County issued a Mitigated Determination of Non-significance (MDNS) with the following conditions:

- Any additional permits, including any water right permit, shall be obtained before implementing the project.
- During construction, proper care shall be taken to prevent soil erosion and suppression of dust.
- A storm water drainage and run off plan shall be submitted before the construction begins.
- Historic and cultural resources shall not be disturbed during or after construction of the project.

INVESTIGATION

Praveena Allena and Lara Henderson, both Ecology employees visited the original project facility on December 19, 2013. Tyler Miller and Pierce Louis, from Dirt Hugger were also present at the time of the site visit. Due to the applicant's amendments to the original application, a second site visit was done on September 10, 2014, at the proposed compost facility. The site visit included inspection of the proposed point of withdrawal, place of use, and an interview with the applicant.

The current compost facility, which is located in Oregon, produces approximately 15,000 tons of compost every year. The applicant is planning to move the entire facility to the proposed site located in Dallesport Industrial Park in Dallesport, Washington. Both the proposed place of use and point of withdrawal are located within the SW¼SW¼, Sec 23, T.02N., R. 13E.W.M., Klickitat County, WA. Construction of the facility has been started and will be ready for operation starting January 2015. The proposed facility includes a compost treatment plant, a retention pond and a storage area for treated compost.

The proposed facility will be used for compost manufacturing, to process 50,000 tons of material each year. The composting facility will be located on 10 acres. Material will be coming from excavation and land clearing projects from the Columbia Gorge, local debris transfer stations, food processors, restaurants, and grocery stores, along with curbside debris from Portland. A ground water well with a 50 gpm capacity will pump water into a 100,000 gallon storage pond and the water will be used to process the compost when needed.

Water Availability

For water to be available for appropriation, it must be both physically and legally available.

Legal Availability

The Program involves releases of water stored in Lake Roosevelt under Reclamation's 1938 storage right (Reservoir Certificate 11793) to provide municipal, domestic, and industrial water supply; provide water to replace some groundwater in the Odessa Subarea; enhance stream flows in the Columbia River to benefit fish; and provide drought relief for interruptible water right holders.

Surface Water Permit S3-30556 was issued on December 1, 2008, to the USBR, authorizing a maximum of 305 cfs, 37,500 acre-feet per year for instream purposes in Lake Roosevelt and below Grand Coulee Dam with a priority date of May 16, 1938. Surface Water Permit S3-30556 is considered the "secondary" water use permit authorizing use of water stored under Reservoir Certificate 11793.

On December 21, 2010, Ecology issued Superseding Certificate of Trust Water Right S3-30556, accepting 305 cfs, 37,500 acre-feet per year to the Washington State Trust Water Right Program (TWRP) for the purpose of instream flow. Under Superseding Certificate of Trust Water Right S3-30556, water is held in the TWRP to mitigate the impacts of 25,000 acre-feet of new state water rights issued under the Program's municipal and industrial water right permitting; the remaining 12,500 acre-feet is reserved exclusively for instream flows. In June 2011, Ecology provided notice under RCW 90.42.040(5) that it would modify Superseding Certificate of Trust Water Right S3-30556 to allow for mitigation of domestic uses as well as municipal and industrial uses. No comments from this notification were received, and Ecology issued a second Superseding Certificate of Trust Water Right S3-30556 on August 17, 2011.

Physical Availability

Municipal, domestic, and industrial water uses associated with the Program will divert or withdraw water from the Columbia River or tributary groundwater on a continuous, year-round basis. In the preferred Alternative 1C, identified in the FSEIS, mitigation releases from Lake Roosevelt will occur during time periods that will provide the greatest benefit to fish populations. These releases will occur during the months in which increased flow in the Columbia River will benefit fish the most, generally during April through September. The exact quantities and timing of the mitigation releases will be determined annually by the Fish Flow Releases Advisory Group (FFRAG). The membership of the FFRAG agrees that mitigation releases should be scheduled to help restore normative flows in the Columbia River. Since flows in October through March are higher than normative, mitigation for diversions and withdrawals under the Program during this time period are not seen as critical by FFRAG, leaving water available for release during the critical April through September period. This strategy was also supported in the consultations for the Program.

The subject application is being investigated under the mitigation framework established under the Program. In order to mitigate the impacts of any new appropriation of water on the Columbia River, hydrologic evidence must indicate that impacts on the Columbia River associated with the proposed water use would be successfully mitigated by the Lake Roosevelt mitigation releases. Additionally, it must be possible to manage the impacts on the Columbia River of proposed pumping in a manner that avoids carry-over of impacts across mitigation cycles.

Ron Dixon, a licensed Ecology staff hydrogeologist produced and stamped a separate technical memorandum, which discusses the hydrogeologic analysis for this application. The hydrogeologic interpretations provided below are extracted from that memorandum.

Hydrological Allocation Requirement Analysis

The subject well is located in the SW¼SW¼, Section 23, T 02N., R 13E.W.M. At this location, the proposed well will be approximately 1.5 miles from the main channel of the Columbia River and approximately 1 mile from Spearfish Lake. Spearfish Lake was estimated to be at an elevation of approximately 190 feet above mean sea level (msl) at the time of the site visit. No outlet on the Lake was observed and therefore it appears that Spearfish Lake may seep naturally through a small earthen dam into Little Spearfish Lake, which then drains into the Columbia River.

The Dalles Dam at river mile 191.5 is approximately 1.5 miles southeast of the proposed well. The Dalles Dam raises the elevation of the Columbia River creating a reservoir known as Lake Celilo. Lake Celilo extends upstream to the base of John Day Dam at river mile 215.6. Normal full pool elevation for Lake Celilo is 160 feet above msl and normal low pool elevation is 155 feet above msl (University of Washington, 2014).

A search of well logs on file with Ecology yielded 23 well logs in the immediate vicinity of the proposed well site. Three of the well logs recorded the deepening of existing wells and three others recorded completions within the relatively thin flood-deposited sands and gravels. As a result, there appears to be approximately 17 wells within the vicinity of the proposed well site that are completed in basalt. All of the well logs reviewed indicate the wells are located in sections other than that of the proposed well site. Only five of the wells were considered to be relatively close to the proposed well site with the closest well being approximately 700 feet southwest of the proposed well location based on water right mapping. This well, if it exists, is associated with a water right claim for which no well log could be matched to the location described on the water right claim.

Two aquifers were identified by analysis of stratigraphy and static water level records from area well logs. One aquifer appears to be relatively deep with wells ranging in depth from 388 feet below ground surface (bgs) to 618 feet bgs. The water level elevations in these deeper wells are in the range of 35 to 160 feet above mean sea level (msl) with an average of 91 feet above msl. By comparison, the second aquifer is relatively shallow with well depths ranging from 85 to 292 feet bgs. The water level elevations in these shallower wells range from 140 to 225 feet above msl with an average of 184 feet above msl. Several of the well logs in the vicinity of the proposed well site indicate relatively shallow (less than 30 feet bgs) water-bearing zones.

Results indicate that pumping a single well at the proposed maximum instantaneous rate of 50 gpm would exhaust the proposed annual quantity of 12.0 acre feet in approximately 54 days and potentially draw the water table down around 0.2 to 2.4 feet at a distance of 700 feet from the pumping well. If the well is pumped in cycles or if it is pumped at less than the maximum pumping rate, the predicted effect would be reduced. An evaluation of water rights, well logs, and 2011 aerial photos of the area indicates that the closest non-subject well is estimated to be approximately 700 feet from the proposed subject well. Based on the analysis presented above, any groundwater drawdown that might occur as a result of the permitting action is not expected to interfere with the ability of nearby well owners to fully utilize their well(s).

Stream depletion modeling was used to estimate the timing of impacts related to pumping the proposed well and the attenuation of those impacts over time. The modeling results indicate that it will take approximately 15 weeks to attenuate pumping impacts if pumping were ceased. Even though the model likely underestimates the time of attenuation, it is expected that the actual amount of time it would take to attenuate the proposed withdrawal would still likely occur within the period of a single one year mitigation cycle.

The analysis above supports a conclusion that the groundwater withdrawal proposed under this permitting action satisfies the requirements of the Columbia River Water Management Program. As a result, impacts to the Columbia River that will occur during fish-critical periods as a result of the permitting action can be mitigated by water from the Lake Roosevelt Incremental Releases Program. However, due to the apparent existence of both a shallow hydraulically-connected aquifer and a deeper less hydraulically-connected basalt aquifer, it is recommended that a well depth provision be added to the Report of Exam and Permit if approved that requires the applicant to complete the well in the shallow aquifer.

Based on the above analysis, the subject well meets the allocation objectives and requirements of the Columbia River Water Management Program.

Impairment Considerations

Columbia River Water Rights

An investigation of a water right application includes an analysis of whether the proposed water use will impair other existing water rights. The impairment analysis involves identifying how the proposed water use may impact the current water rights regime.

In considering impacts to existing water right holders and the instream flow rule, an analysis must consider actual river operation, particularly in drought years when water availability issues are most acute. In the context of this application, there are four classes of water uses that must be considered:

- Water right holders with priority dates senior to May 16, 1938.[1]
- Uninterruptible water rights with priority dates junior to May 16, 1938.
- Interruptible water rights with priority dates junior to May 16, 1938.
- The June 24, 1980 Instream Flow Rule (Chapter 173-563 WAC).

A detailed analysis of the current water rights regime on the Columbia River was issued in the Report of Examination (ROE) for S3-30556.

Under the Program, 37,500 acre-feet per year of mitigation water is held in the TWRP for instream purposes under Superseding Trust Water Certificate S3-30556 with a priority date of May 16, 1938, 25,000 acre-feet of which may be used for mitigation of new out-of-stream uses. Under the State's priority system, the mitigation water is senior to all water rights issued after May 16, 1938. The mitigation water rights are specifically exempted from the Columbia River instream flow rule (WAC 173-563-020(5)). Additionally, the mitigation water is protected under the TWRP from diversion by junior water right holders who may be curtailed during low-flow years. These junior users total approximately 379 interruptibles who are curtailed based on a forecast methodology outlined in Chapter 173-563 WAC. Although junior to the mitigation that is available for this application, no conflict is expected between the applicant's diversions or withdrawals and interruptible water users because of the mitigation provided by the Program.

Water Rights in the Vicinity

Table 3 describes the other water rights surrounding the proposed project location. There are ten water rights; ground and surface appropriations includes certificates, permits and claims. The purposes of use are a combination of domestic, irrigation, stock, industrial, and commercial use. The closest well is approximately 700 feet southwest of the proposed point of withdrawal.

Table 3 Other Water Rights in the Vicinity

File Number	Applicant	Document	Type	Priority Date	Purpose	Qi/Units	Qa (Ac-ft/yr)
G4-9862	Klickitat County	Permit	Ground	3/23/1970	Domestic Multiple (Primary)	450 gpm	300.0
G4-23565	Klickitat County	Permit	Ground	10/18/1974	Domestic Multiple (Supplemental)	1000 gpm	300.0
S4-30550	Kitchel & Eddins	Permit	Surface	1/16/1991	Irrigation	1.5 cfs	350.0
CG4-GWC3083A	Circle T	Certificate	Ground	2/17/1953	Irrigation	900 gpm	480.0
G3-00791C	Jarl Norman	Certificate	Ground	12/17/1970	Commercial and Industrial	900 gpm	517.0
G4-007729	Lawrence Tidyman	Claim	Ground	1/01/1945	Domestic/Stock	20 gpm	4.0
S4-007730	Lawrence Tidyman	Claim	Ground	1/01/1903	Irrigation/Stock	2 cfs	480.0
S4-29334	Kent Smith	Permit	Surface	7/22/1987	Irrigation/ Domestic /Stock	0.11 cfs	34.5
G4-103117	Eugene Dennis	Claim	Ground	1/01/1968	Irrigation/ Domestic	35 gpm	56.0
G4-01213	Fred Smith	Certificate	Ground	10/15/1970	Commercial and Industrial	600 gpm	450.0

[1] Although the priority date of this application is June 4, 2014, based on the date of filing with Ecology, the application is backed by mitigation with a priority date of May 16, 1938, which is how it will be managed if regulation of Columbia River water rights is required.

Beneficial Use

The use of water for industrial purposes is defined in statute as a beneficial use (RCW 90.54.020(1)). Beneficial use encompasses two principal elements of a water right:

1. Beneficial use refers to the purpose for which water may be used.
2. Beneficial use determines the measure of a water right. The owner of a water right is entitled to the amount of water necessary for the purpose to which it has been used.

To determine the amount of water necessary for a beneficial use, courts have developed the principle of "reasonable use". Reasonable use of water is determined by analysis of the factors of water duty and waste.

The quantity of water requested is for the proposed industrial use to maintain moisture at the compost facility. In general, the moisture content of the blended material at startup of the composting process should be approximately 60 percent and maintained at 40 to 65 percent during the composting process. Addition of water is largely dependent on the material that comes to the facility and climate conditions.

The applicant is currently producing approximately 15,000 tons of compost in a year and using 3.9 ac-ft/yr (1,272,000 gal/yr). The material coming to the facility will have some moisture but additional water has to be added frequently to maintain a healthy compost pile. Addition of moisture greatly varies with the season. During periods of hot, dry weather, the pile will presumably have to be watered more often than during cold weather periods. Based on the current water usage, the approximate amount of water applied to the pile is between 30%-35% by weight of the material. The applicant's future goal is to manufacture approximately 50,000 tons of compost every year. If the applicant uses 30% of water every year by weight of the material, the total requirement of water to process 50,000 tons will be slightly over 12 ac-ft/yr. Table 4 describes water use calculations for current and future usage. The bagged product maintains 50% moisture.

Table 4 Water Use Calculations

Compost (Tons)	Water (Gal)		Water (Ac-Ft)	
	30%	35%	30%	35%
15,000	1188790	1386921	3.65	4.26
25,000	1981316	2311535	6.08	7.09
35,000	2773842	3236149	8.51	9.93
45,000	3566369	4160763	10.94	12.77
50,000	3962632	4623070	12.16	14.19

By looking at the above table, in both scenarios (30% or 35%), the applicant needs additional water supply to manufacture 50,000 tons of compost every year. Any additional quantity of water that would be needed for manufacturing can be done by either filing a new application or transfer of existing rights with Ecology at any point of the time. The application will have a new priority date and Ecology cannot guarantee the availability of water supply.

The anticipated time to complete the project will be 10 years with proposed annual demand of 12.0 ac-ft/yr. The applicant is aware of the fact that the requested quantity of water will be reduced at the final inspection stage if the applicant's water use is less than the proposed quantity. If approved, the

applicant will be responsible for the annual cost associated with water right permits issued under the program. The actual quantity of water use will be determined at the proof examination stage.

Public Interest Considerations

Analysis of whether this application meets the requirements of RCW 90.03.290, that the proposed use of water will not be detrimental to the public welfare, involves investigation of how the approval of the proposed use of water will affect the range of values that are encompassed by the public interest.

Several sections of statute list the legislative policies that guide the consideration of the public interest during the allocation of water, including sections of the 1971 Water Resources Act (Chapter 90.54 RCW) and Columbia River Basin Water Supply Act (Chapter 90.90 RCW).

An analysis of the public interest considerations for the Program is contained in the Report of Examination for S3-30556, the "secondary use" permit for the Lake Roosevelt releases.

The public interests associated with the Program's municipal, domestic, and industrial permitting are specifically cited in several sections of Chapter 90.90 RCW:

- RCW 90.90.005(1) states "The legislature finds that a key priority of water resource management in the Columbia River Basin is the development of new water supplies that includes storage and conservation in order to meet the economic and community development needs of people and the instream flow needs of fish".
- RCW 90.90.005(2) directs Ecology to "aggressively pursue the development of water supplies to benefit both instream and out-of-stream uses".
- RCW 90.90.020(3)(b) instructs Ecology to focus on "Sources of water supply for pending water right applications".
- RCW 90.90.020(3)(d) instructs Ecology to focus on "New municipal, domestic, industrial, and irrigation water needs within the Columbia River Basin".
- RCW 90.90.060(3) states that Lake Roosevelt releases "will bolster the state economy and will meet the following critical needs" including "new water supplies for municipalities with pending water right applications".

The Program's municipal, domestic, and industrial permitting achieves the statutorily mandated public interest requirements by allowing new state water rights to be issued while mitigating the impacts to fish.

If the subject application is approved, the public welfare may be affected in several ways:

- Economic activity is likely to result from the use of water for commercial/industrial purposes, as the associated construction and operation activities generate increased economic and social opportunities.
- The use of water for industrial purpose of compost is not expected to affect local cultural, recreational, or environmental resources.
- The adaptive management strategy for mitigation releases will ensure releases occur at times that are most beneficial for Endangered Species Act-listed salmon and steelhead species in the Columbia River, thus assuring effective mitigation for this appropriation of water.

Consideration of Protests and Comments

On September 22, 1997, The Center for Environmental Law & Policy (CELP) submitted written comment to Ecology requesting that Ecology "either deny or continue in hold status all applications for new water rights from the Columbia River, its tributaries and from any ground water source in continuity with them." Major concerns cited by CELP include impacts to Endangered Species Act listed fish stocks, water availability, and reduced revenue from hydropower facilities as a result of increased diversions. CELP asserted that issuance of new water rights would violate the four statutory criteria for issuance of a water right because water is not available, and issuance of new rights would lead to impairment of existing rights and would not be in the public interest.

The Office of Columbia River has addressed these concerns in the FSEIS for the Lake Roosevelt Incremental Storage Releases Program and the Addendum to the FSEIS (Addendum). Under the Program, issuance of new water rights for pending applications is mitigated by existing water rights held by Reclamation for water releases from Grand Coulee Dam. Ecology has placed this water into the TWRP to supply water for out-of-stream and instream purposes as outlined in the FSEIS.

This Program will have a beneficial impact on ESA-listed fish by providing additional instream flow in the quantities of 37,500 acre-feet each year and an additional 17,000 acre-feet per year during drought years. Water will be released from Lake Roosevelt to maximize fish benefits on a schedule as agreed upon each year by the FFRAG (FSEIS 2.3.2.3 and FSEIS 2.3.3.2). The timing of the releases would be constrained by the instantaneous flow limit of Reclamation's secondary water use permit as described in FSEIS section 2.3.

Program water will be released from storage in Lake Roosevelt in addition to water that is currently released. The Program is designed so no diminishment of water available to other appropriators throughout the Columbia River system will occur. Program water will only be used to supply water to surface water users or groundwater users who are capable of directly capturing water released from Lake Roosevelt or those groundwater users who can demonstrate that their withdrawals, if pumping ceased, would be fully attenuated within a single mitigation cycle (Addendum section II).

Under the Program, water is allocated to supply industrial and domestic/municipal development. As described in the public interest section, the project will generate new jobs, revenue, and other economic benefits to individuals and communities throughout the Columbia River Basin, while providing mitigation for fisheries.

Conclusions

Beneficial Use

The proposed use of water for industrial purposes is considered to be a beneficial use. Therefore, this application meets the first criterion of RCW 90.03.290 that the requested water be put to beneficial use.

Water Availability

The analysis provided above demonstrates that water is physically and legally available for the proposed use of water.

Impairment

The proposed beneficial use of water will not impair any existing water rights.

Public Interest
The proposed use of water would not be detrimental to the public welfare.

RECOMMENDATIONS

Based on the above investigation and conclusions, I recommend that this request for a water right be approved and a permit be issued in the amounts and within the limitations listed below and subject to the provisions listed above.

Purpose of Use and Authorized Quantities

The amount of water recommended is a maximum limit and the water user may only use that amount of water within the specified limit that is reasonable and beneficial:

50 gpm
12.0 ac-ft/ yr
Industrial purposes

Point of Withdrawal
SW¼, SW¼, Section 23, Township 02N., Range 13E.W.M.

Place of Use
SW¼, SW¼, Section 23, Township 02N., Range 13E.W.M.

1/7/15

Report Writer *Date*

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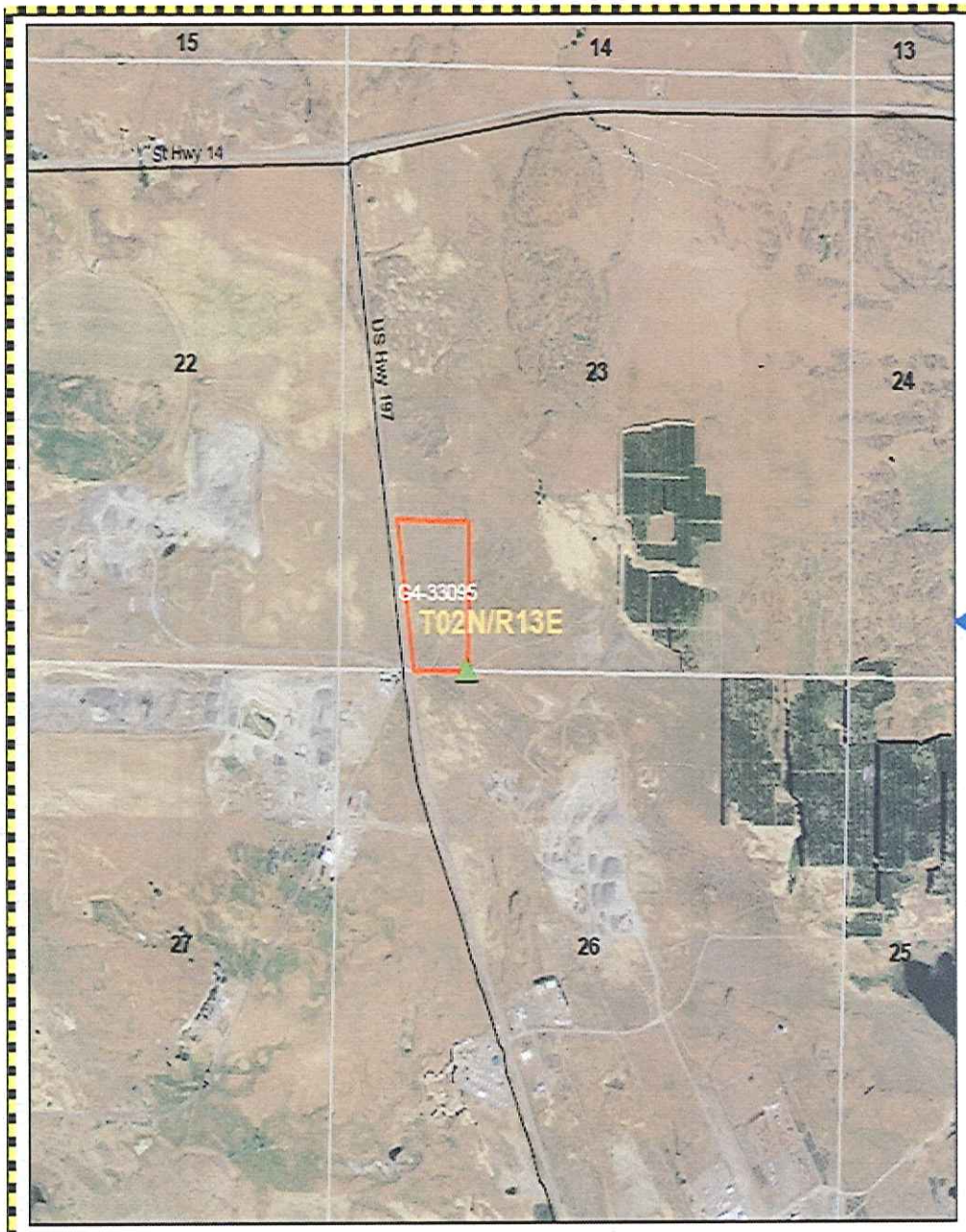
Dirt Hugger
G4-33095

SW¼SW¼, Section 23; T 02 N/R13 E.W.M.

WRIA 30 - Klickitat County



Basemap - NAIP 2011 Aerial Imagery

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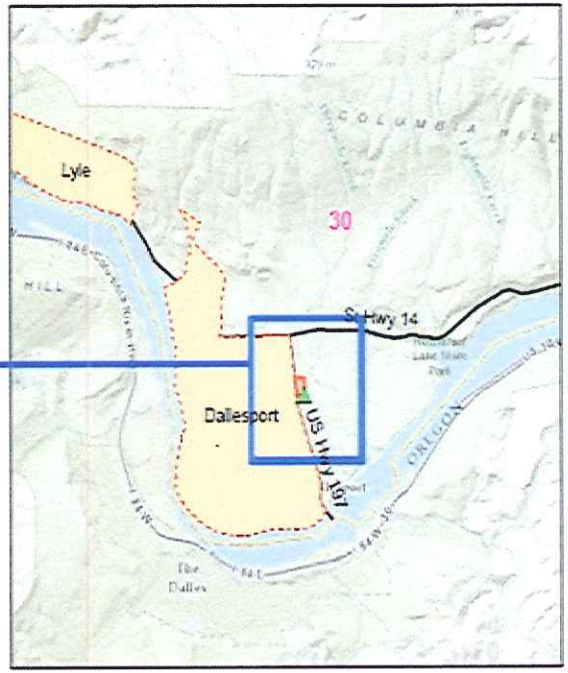

0 0.75 1.5 3 Miles

Basemap - ESRI Topographic Maps

Legend

- Point of Withdrawal
- Place of Use

DEPARTMENT OF ECOLOGY
State of Washington

Place of use and source locations are as defined according to the Application. This map is to show location of POU and POD's only, not to use in ROE.

Date: 11/25/2014