DEPARTMENT OF
ECOLOGY
State of Washington

State of Washington
REPORT OF EXAMINATION
FOR WATER RIGHT APPLICATION

File No. G2-30611
WAC Doc ID: 5565465

PRIORITY DATE	APPLICATION NUMBER
December 21, 2012	G2-30611

MAILING ADDRESS	SITE ADDRESS (IF DIFFERENT)
Northwest Hardwoods 120 Industrial Way Longview, WA 98632	

Quantity Authorized for Withdrawal or Diversion

DIVERSION RATE	UNITS	ANNUAL QUANTITY (AF/YR)
500	gpm	15

Purpose

PURPOSE	WITHDRAWAL OR DIVERSION RATE			ANNUAL QUANTITY (AF/YR)		PERIOD OF USE (mm/dd)
	ADDITIVE	NON-ADDITIVE	UNITS	ADDITIVE	NON-ADDITIVE	
Industrial		500		15		Year-round as needed

Source Location

WATERBODY	TRIBUTARY TO	COUNTY	WATER RESOURCE INVENTORY AREA
Well		Cowlitz	26

SOURCE FACILITY/DEVICE	PARCEL	TWN	RNG	SEC	QQ Q	LATITUDE	LONGITUDE
Well	615200600	7N	2W	3	SW SE	46°06'14"N	122°55'08.77"W

Datum: WGS84

Place of Use (See Map, Attachment 1)

PARCEL

615200600

LEGAL DESCRIPTION OF AUTHORIZED PLACE OF USE

Parcel 4: A parcel of land situated partly in the Jonathan Burbee Donation Land Claim and partly in the Royal C. Smith Donation Land Claim all in Section 3, T. 7 N., R. 2 W.W.M., in Cowlitz County, State of Washington and more fully described as follows: Beginning at a point on the boundary of California

Way 2993.22 feet East of the intersection of the Southwesterly boundary of California Way with the South boundary of Columbia Way in the City of Longview; thence West 100 feet; thence South 125 feet; thence West 415.57 feet to a point 50 feet East of the Southwest corner of the first described parcel as recorded in Volume 235, Page 295, of Cowlitz County deed records; thence South 300 feet; thence West 50 feet; thence South 287.8 feet to a point 100 feet North of the centerline of the NPRR Company Et AL Track No. 15 (Log Dump Track) as the same now exists and is recorded in Volume 167, Page 443, under Cowlitz County Auditor's File No. 107476; thence East 1172.1 feet to the Northwesterly boundary of the NPRR Company Et AL Track No. 12, this boundary being a line parallel to and 25 feet Westerly from the centerline of the said track No. 12 as the same now exists; thence along this said boundary Northerly to a point which is South 225 feet and east 789 feet from the point of beginning; thence West 780 feet; thence North 225 feet to the point of beginning. Excepting therefrom the now existing electric transformer site situated in the Southwest corner of the above described parcel, as disclosed in deed recorded August 9, 1966, under Auditor's File No. 640295. Parcel 5: Longview Out Lot No. 88: Beginning at a point North 50 feet and Eat 2904.5 feet from the intersection of the center line of Columbia Way and California Way in Longview, Washington; thence West along said street 147.49 feet to L.P. & N. pipe line, along said right of way line North 30°20' East 366.34 feet to the Southwesterly right of way line of N.P. Railroad ET AL; thence along said right of way line on a 5° curve right back tangent which bears South 65°20' East an arc distance of 260.7 feet' thence South 52°18' East 295.44 feet to the North line of California Way; thence along said North line West 493.61 feet to the point of beginning. Parcel 6: A parcel of land situated partly in the Jonathan Burbee Donation Land Claim and partly in the Royal C. Smith Donation Land Claim all in Section 3, T. 7 N., R. 2 W.W.M., in Cowlitz County, State of Washington and more fully described as follows: Beginning at a point East 2402.7 feet and South 50 feet from the intersection of the center lines of California Way with the South boundary of Columbia Way in the City of Longview, Washington this said point of beginning being the Northeast corner of the first described parcel as recorded in Volume 235 in Page 295, under Cowlitz County Auditor's File No. 177103; thence South 425.0 feet; thence East 50.0 feet; thence North 425 feet to the South boundary of California Way; thence West 50 feet to the point of beginning.

Proposed Works

Well supplying make up water to an existing water distribution system consisting of submersible pumps and six portable Big Gun style overhead sprinklers.

Development Schedule

BEGIN PROJECT	COMPLETE PROJECT	PUT WATER TO FULL USE
Started	Completed	September 1, 2015

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
What rate should be reported?	Annual Peak Rate of Withdrawal (cfs)

Provisions

Measurements, Monitoring, Metering and Reporting
An approved measuring device shall 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.

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

Water Use Efficiency
Use of water under this authorization shall be contingent upon the water right holder's maintenance of efficient water delivery systems and use of up-to-date water conservation practices consistent with established regulation requirements and facility capabilities.

Proof of Appropriation
The water right holder shall file the notice of Proof of Appropriation of water (under which the certificate of water right is issued) when the permanent distribution system has been constructed and the quantity of water required by the project has been put to full beneficial use. The certificate will reflect the extent of the project perfected within the limitations of the permit. Elements of a proof inspection may include, as appropriate, the source(s), system instantaneous capacity, beneficial use(s), annual quantity, place of use, and satisfaction of provisions.

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.

Findings 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. G2-30611, 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 Hearing 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	**Department of Ecology** Attn: Appeals Processing Desk PO Box 47608 Olympia, WA 98504-7608
Pollution Control Hearings Board 111 Israel RD SW STE 301 Tumwater, WA 98501	**Pollution Control Hearings Board** PO Box 40903 Olympia, WA 98504-0903

Signed at Olympia, Washington, this 13th day of March 2014.

Michael J. Gallagher

Michael J. Gallagher, Section Manager
Water Resources Program/SWRO
Department of Ecology

BACKGROUND

On December 21, 2012, BJ Nersten on behalf of Northwest Hardwoods filed an Application for Water Right Permit with the State Department of Ecology. The project site is Northwest Hardwood's wood product processing plant located in Longview, Washington in the Cowlitz River Watershed Inventory Area (WRIA 26). Northwest Hardwoods requested a water right permit for an estimated 500 gallons per minute (gpm) and an estimated annual allocation of 15 acre-feet per year or adequate water to supply their future industrial demands.

Northwest Hardwoods processes wood products and is located in an industrial area of Longview near the confluence of the Cowlitz and Columbia River. Northwest Hardwoods has limited access to a log pond located on property owned by Pacific Fibre Products and uses water under surface water certificate S2-30032; however, the applicant has found that their operation needs an independent water source and wished to develop a new groundwater source on the property.

This application has been processed under Ecology's Cost Reimbursement Program. Pacific Groundwater Group (PGG) prepared this report under contract to Ecology. PGG reviewed all available documents pertaining to this and other related Applications for Water Right, including site conditions, hydrogeological considerations, historical water use, and standing of existing rights.

Under the provisions of RCW 90.03.290 and 90.44, a water right may be issued upon findings that water is available for appropriation for a beneficial use, that the appropriation will not impair existing rights or be detrimental to the public welfare. In accordance with these provisions, I recommend issuance of Permit G2-30611.

Project Description

Table 1
Summary of Application No. G2-30611

Attributes	*Proposed*
Applicant	Northwest Hardwoods
Application Received	December 21, 2012
Instantaneous Quantity	500 gpm
Source	well
Purpose of Use	Industrial supply
Period of Use	Year-round as needed
Place of Use	See Page 1

Legal Requirements for Application Processing

The following requirements must be met prior to processing a water right application:

- **Public Notice**

A public notice of the proposed appropriation was published in the Daily News of Cowlitz County on June 8 and 15, 2012. No protests were received as a result of this notice.

- **State Environmental Policy Act (SEPA)**

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 feet per second, unless that project is for agricultural irrigation, in which case the threshold is increased to 50 cubic feet per second, so long as that irrigation project will not receive public subsidies;
- It is a groundwater right application for more than 2,250 gpm
- It is an application that, in combination with other water right applications for the same project, collectively exceed 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, together, trigger the need to do a threshold determination, as defined under WAC 197-11-305.

None of these situations applied to this application.

- **Water Resources Statutes and Case Law**

Under the provisions of RCW 90.03.290 and 90.44.050, a water right shall be issued upon findings that water is available for appropriation for a beneficial use and that the appropriation, as proposed in the application, will not impair existing rights or be detrimental to the public welfare.

This application has been processed under Ecology's Cost Reimbursement Program. Based on the provisions of RCW 43.21A.690 and RCW 90.03.265, Pacific Groundwater Group (PGG) prepared this report under contract to Ecology.

INVESTIGATION

Evaluation of this application included, but was not limited to, research and/or review of the following:

- Department of Ecology records of surface and ground water rights and claims, and well construction reports within the vicinity of the subject production wells.
- Documents and reports applicable to the area
- A field visit conducted on May 30, 2013 by Jill Van Hulle of Pacific Groundwater Group.

Project Description

The intent of this filing is to secure a new water right for the Northwest Hardwoods facility. The applicant has historically received water via shared pipeline and surface water pond owned by Pacific Fibre. Domestic water is provided by the City of Longview.

The primary use of water on the site is for log sprinkling and some dust control with peak water demand occurring during the summer. Currently water is pumped from the Pacific Fibre log pond to augment the stormwater stored in the applicant's stormwater runoff pond. Two 50-hp pumps pump water out onto the log yard using six "Big Gun" agricultural sprinklers system. The system is capable of supplying 500 gpm to the log yard. The sprinklers operate until the logs reach certain moisture content. All logs waiting processing are stored on a paved area and a closed loop system collects any return water (including stormwater) to the stormwater pond.

Site Description

Northwest Hardwoods is located directly south of Longview, WA on the peninsula between the Cowlitz and Columbia Rivers within Section 3, T. 7 N., R. W.W.M, approximately 1.5 miles upstream of the confluence of the Cowlitz River with the Columbia River (see **Attachment 1**). This is an industrial area shared by other log yards and paper processing facilitates including International Paper, Weyerhaeuser, Pacific Fibre Product, Longview Fibre, Swanson Bark and the Port of Longview. Highway 432 and Industrial Way provide site access.

The point of withdrawal is a new well constructed under the authorization of a Preliminary Permit to drill and test issued by the Department of Ecology on March 22, 2013.

Aquifer Characterization and Site Hydrogeological Conditions

The project site is situated along the north bank of the Columbia River in southwest Washington and is bounded on the east by the Cowlitz River. The area is located in a topographic basin that is surrounded

on all sides by bedrock uplands. Topography within the basin is predominantly flat with a shallow regional slope towards the Columbia River.

The Longview-Kelso Basin is a topographic and structural depression covering an area of approximately 17 square miles. The modern and ancestral Columbia and Cowlitz Rivers have played a major role in shaping the geologic history of the Longview area. The valley is surrounded by highlands that are primarily composed of basaltic and older sedimentary rocks. General subsurface conditions consist of a wide valley eroded into the underlying bedrock. Valley-fill materials include Pleistocene gravel deposits (laid during catastrophic flooding from Glacial Lake Missoula ice dam failures), coarse-grained alluvial sand and gravel deposits laid down by the Cowlitz and Columbia rivers, and more recent overbank flood deposits comprised of fine-grained silt, clay and fine sand.

The deeper coarse-grained alluvial deposits from the principal aquifer in the lowland. The fine-grained overbank deposits (where present) act to confine the deeper ground water zones. Many of the high capacity production wells in the Longview area are completed within the deeper underlying coarse-grained alluvial deposits. The alluvial aquifer was the targeted zone for water supply development at the Northwest Hardwood site.

Well Construction and Testing

The NW Hardwoods supply well was installed and tested by Hansen Drilling in May 2013. The well was drilled to a depth of 182 feet and completed within a confined alluvial sand aquifer that that extends from 128 feet to an unknown depth.

The geology at the site consists of coarse fill deposits to a depth of about 8 feet, fine-grained clay and silt deposits from 8 to 38 feet, fine-grained silt, sand, and wood deposits from 38 to 128 feet, and cleaner water bearing sand deposits between 128 and 182 feet. The fine-grained deposits between 8 and 128 feet act to confine groundwater in the underlying aquifer zone.

The well design consists of a 12-inch casing that extends from 2 feet above ground surface to a depth of 145 feet and an 8-inch pipe-size screen assembly and #8-12 sand pack that extends from 132 to 182 feet. A 40-slot screen is open to the formation between 142 and 177 feet.

A four hour constant-rate pumping test was completed on May 31, 2013 at an average rate of 600 gpm. The static water level just prior to testing was about 7.3 feet below ground surface. At the end of the testing period, the pumping level had largely stabilized at about 27.4 feet below ground surface (i.e. about 20.1 feet of drawdown). Water level recovery was monitored for a period of approximately 1.5 hours following pump shutdown when water levels had recovered to about 97 percent of the pretest condition.

There were no accessible nearby wells for remote water level monitoring during the constant-rate pumping test. A nearby well (authorized by groundwater certificate G2-23674C) located 600 feet north at the Cowlitz County sewage treatment plant substation is completed at a similar depth, but could not be easily accessed during the testing period; therefore, drawdown and recovery measurements were focused exclusively on the NW Hardwoods well.

Aquifer transmissivity was estimated to be about 158,400 gpd/ft based on the analysis of the drawdown and recovery curves obtained from testing. A storage coefficient could not be rigorously defined based on a single well test; however a value of 0.0001 appears to provide a reasonable match to the time drawdown trends. A comparison of theoretical drawdown based on the Theis solution and observed drawdown during testing indicates a well loss coefficient of about 6.5 sec^2/ft^5.

Based on these aquifer properties and well loss characteristics, we estimate that the Northwest Hardwoods well would experience about 17.5 feet of drawdown after 100 days of pumping at a constant rate of 500 gpm. This intensity of use is however, unlikely to ever occur given the nature of the water use, which is to top off a storage pond, but was chosen to approximate a worse case scenario in our modeling effort. This would place the pumping water level at a depth of about 25 feet below ground surface. The well design provides for about 125 feet of available drawdown above the top of the screen assembly; therefore, there is more than adequate safety margin for long-term operation.

Predicted interference drawdown at the nearby Cowlitz County sewage treatment plant well would be on the order of 4.3 feet after 100 days of pumping at 500 gpm. The sewage treatment plant well is completed to a depth of 101 feet, has a static water level of about 10 feet and a specific capacity of 19 gpm/ft. The water right allows a maximum withdrawal rate of 75 gpm. At this rate, the well would experience about four feet of drawdown. Interference drawdown due to operation of the NW Hardwoods well would add about 4 feet of additional interference drawdown for a total pumping level of about 18 feet. The top of the screen at the sewage treatment plant well lies at a depth of about 76 feet. This depth setting would provide about 66 feet of available drawdown which is more than adequate to accommodate the combine drawdown due to the well's operation and interference drawdown from NW Hardwoods.

Quantities for Permit

The well is intended to provide make-up water to the applicant's existing water source. In 2012 the applicant diverted approximately 15 acre-feet from the Pacific Fibre log pond. Northwest Hardwoods indicates that this is adequate water for their current and projected future water demands.

Priority Processing

RCW 90.03.265(2) provides that, in pursuing a cost-reimbursement project, the Department must determine the source of water from which the water is proposed to be diverted or withdrawn, including the boundaries of the area that delimit the source. The Department must determine if any other water-right applications are pending from the same source. A water source may include surface water only, groundwater only, or surface and groundwater together, if the Department finds they are hydraulically connected. The Department shall consider technical information submitted by the applicant in making its determinations under this subsection.

RCW 90.03.265(1)(b) provides that the requirement for an applicant to pay for the processing of senior applications does not apply in situations where it can be determined that the water allocated to one

party will not diminish the water available to a senior applicant from the same source of supply. Because there are no other pending groundwater applicants that will be impacted by this allocation this application can be processed prior to other pending applications.

Four Statutory Tests

This Report of Examination (ROE) evaluates the application based on the information presented above. To approve the application, Ecology must issue written findings of fact and determine that each of the following four requirements of RCW 90.03.290 has been satisfied:

1. The proposed appropriation would be put to a beneficial use;
2. Water is available for appropriation;
3. The proposed appropriation would not impair existing water rights; and
4. The proposed appropriation would not be detrimental to the public welfare.

Beneficial Use

According to RCW 90.14.031, industrial supply is considered a beneficial use of water.

Availability

Water is available for appropriation. The aquifer which the applicant intends to target is highly transmissive and productive and capable of supporting the additional withdrawals requested. The quantity appropriated reflects the amount needed to meet the needs of the applicant's intended use. Water is therefore judged to be available for appropriation under existing Ecology regulations.

Potential for Impairment

The approval of this application will not impair existing rights. A review of Ecology records indicates that no water right permits or certificates for conflicting surface or ground water sources were identified within a one mile radius of the Northwest Hardwoods property. Due to the high transmissivity and yield of the aquifer and the proximity of nearby recharge boundaries (Cowlitz River), the proposed ground-water withdrawals will not impair existing rights if exercised according to the provisions above.

Potential for Impairment to Groundwater Rights

Ecology's Water Right Tracking System indicates that only one other groundwater right has been issued in the vicinity of the Northwest Hardwoods site – that's G2-23674 for a small pump station facility. Table 2 shows other water rights that have been issued in the immediate area. As previously discussed surface water certificate S2-33032 already belongs to NW Hardwoods and authorizes their withdrawals from the Pacific Fibre pond. S2-30495 was also filed by NW Hardwoods and the applicant intends to

withdraw that filing once the new groundwater right is secured. Across the Cowlitz River to the east are additional water rights associated with the Kelso Elks Lodge and golf course facilities.

Table 2

File #	Person	Doc	Date	Use	Qi	Qa	QQ/Q	Source
G2-23674	Cowlitz Cnty Department Of Public Works	Cert	12/24/1974	DS	75 gpm	2		WELL
S2-30032	Weyerhaeuser NR Co/ NW Hardwoods	Cert	11/9/2001	CI	1.1 cfs	15		COWLITZ RIVER
S2-30495	Weyerhaeuser NR Co/ NW Hardwoods	NewApp	10/10/2008	CI	1.11 cfs	30		UNNAMED POND
G2-30611	*Northwest Hardwoods*	*NewApp*	*12/21/2012*	*CI*	*500 gpm*	*15*	*SW/SE*	*Well*

Aquifer testing in the area indicates that the alluvial unit is highly productive and appears capable of sustaining high withdrawal rates. The alluvial system is hydraulically connected to the rivers. Ground water withdrawals from the alluvial unit reduce the hydraulic head of the unit creating a cone of depression that extends to the nearby rivers which serve as recharge boundaries, capturing surface water from the rivers. Draw down interference due to pumping of the Northwest Hardwoods well is not significant due the proximity of the aquifer recharge boundaries of the tidally influenced Columbia and Cowlitz Rivers.

Testing at a rate of 600 gpm indicated a transmissivity of about 158,400 gpd/ft. Projected drawdown at the nearest neighboring well which is located only 600 feet away is projected to amount to less than 4.3 feet and can easily be accommodated.

Potential for Surface Water Impairment

The project site is located on peninsula of land near the confluence of the Cowlitz River and Columbia Rivers. The other prominent surface water feature near the site is a large constructed log pond that serves as the water sources for Longview Fibre and Weyerhaeuser. Based on PGG's evaluation of shallow ground water movement it appears that the Northwest Hardwoods well draws water from the confined sand and gravel aquifer beneath the Cowlitz River. Pumping from this confined aquifer will likely capture groundwater that would eventually discharge to the Cowlitz and Columbia Rivers. Both rivers are tidally influenced; therefore surface water capture should not produce adverse impacts.

The pond is hydrological coupled with the Columbia River and water levels in the pond are an expression of river stage. Average streamflow in the Columbia River is approximately 180,000 cfs, and flow in the Cowlitz River ranges between 3,000 to 10,000 cfs. Surface water flow in the immediate area would not be impaired by Northwest Hardwood's well due to the comparably vast quantity of water in the lower Columbia River basin. Instream flows have not been set on the mainstem of Columbia River ownstream from the upstream extent of tidal influence which is the Bonneville Dam at RM 146. As discussed the section entitled **Consistency with Watershed Planning** there are no proposed instream flow restrictions for the tidally influenced lower Cowlitz River.

Fishery Considerations

The Cowlitz River historically supported abundant runs of anadromous salmonids including spring and fall chinook, coho, steelhead and cutthroat. Most of the anadromous fish production occurred in the watershed upstream of Mayfield Dam. Harvest, habitat degradation and the construction of Mayfield and Mossyrock Dams contributed to the decline of these populations. The construction of the two dams effectively removed this area from wild fish production. The 1980 eruption of Mt. St. Helens also dramatically degraded the Toutle River system, and the mainstem Cowlitz River below the mouth of the Toutle.

Today the lower Cowlitz River has been managed primarily as a hatchery system and limited natural production occurs. The Cowlitz subbasin is managed for winter and summer steelhead, coastal cutthroat, fall and spring chinook, and coho. Chum salmon are also present, but in extremely low numbers. Sturgeon and pacific lamprey are present in the lower reaches in reduced numbers, and smelt runs still occur cyclically.

Use of this well will have no impact on fishery resources in the lower Cowlitz River.

Public Welfare

No detriment to the public interest was identified during the investigation of the subject application.

Consistency with Watershed Planning

It is the Department of Ecology's goal that decisions on new water right applications in Cowlitz County be consistent with the watershed planning process.

The final Grays-Elochoman/Cowlitz Watershed Plan was approved by the Planning Unit on December 9, 2004. The plan includes water supply, water quality, instream flows, and habitat components. The habitat component of this plan was adopted from the Lower Columbia River Salmon and Steelhead Recovery Plan, which was the first regional recovery plan completed in the state.

The Watershed Management Plan addresses a range of issues related to water resources in the Cowlitz drainages, including water supply, stream flow management, water quality and fish habitat. The Plan reviews alternative approaches for managing water resources in the area and recommends strategies for implementation.

There are a number of elements and tools addressed in the Watershed Plan that have direct applicability to this application:

- Establishment of instream flows. The plan specifically provides that the Department of Ecology should adopt State Rules (WACs) under its Instream Resources Protection Program to restrict issuance of new water rights in WRIAs 25 and 26. The closures impact numerous creeks and streams, but identify certain exceptions. A primary exception being that for each stream that flows into the Columbia River, the zone where water levels are substantially affected by tidal influence and backwater from the Columbia River shall not be closed to issuance of new water rights. The location of the "lowermost extent of the closure" is identified in this Plan, and includes the Longview area.[1]

- The Watershed Management plan stated that as the region continues to grow and develop, new or expanded water supplies will be needed for communities, businesses, and citizens. While diversion of water from streams or pumping from aquifers can deplete stream flows, the watershed planning effort provided an opportunity to explore strategies for striking a balance among the latter two principles, without impairing existing water rights.

In order to strike this balance, two policies for management of water supplies were developed. These policies are:

1. Public and private water users throughout WRIAs 25 and 26 should have access to water resources to meet new or expanded needs for water supply consistent with adopted land use plans.

2. Water resource development to meet new or expanded needs should avoid or minimize effects on stream flows or aquatic habitat in stream reaches where flow conditions are an important factor for sustaining aquatic life, including fish populations in their various life stages.

3. Stream flow in the lower reaches of streams that flow into the Columbia River in WRIAs 25 and 26 are influenced by tides from the Pacific Ocean, as well as other changes in water level on the Columbia River. Whenever the water level in the Columbia River is higher than the water level of the tributary's natural flow, the tributary is backed up. At some times and places this can extend for miles upstream of the tributary's mouth. At these times and places, diversions for water supply do not influence flows or water levels to any measurable degree. Because of this effect, the Planning Unit anticipates that water users needing new or expanded rights from tidally influenced reaches should be able to have access to water rights.

[1] Appendix I of the Watershed Plan indicates that the lower 6.7 miles of the Cowlitz are open for additional water supply development.

CONCLUSIONS

The conclusions based on the above investigation are as follow:

1. The proposed appropriation for industrial supply is a beneficial use of water;
2. The requested quantity of 500 gpm, and 15 acre-feet per year is available for appropriation;
3. The new appropriation will not impair senior water rights; and
4. The new appropriation will not be detrimental to the public interest.

RECOMMENDATION

Based on the information presented above, the author recommends that the request to appropriate 500 gpm and 15 acre-feet per year be approved in the amounts described, limited, and provisioned on page 1 through 3 of this report.

Report by: _____

Jill Van Hulle, Pacific Groundwater Group — Date

Reviewed by: Michael J Gallagher — 3/13/14

Michael J. Gallagher, Water Resources Program — Date

If you need this publication in an alternate format, please call Water Resources Program at 360 407-6600. Persons with hearing loss can call 711 for Washington Relay Service. Persons with a speech disability can call 877-833-6341.