

Lewis County WATER CONSERVANCY BOARD Application for Change/Transfer Record of Decision

For Ecology Use Only Received: RECEIVED SEP 30 2011 WA State Department of Ecology (SWRO) Review of Date Reviewed:

Applicant: City of Winlock

Application Number: LEWI-11-02

This record of decision was made by a majority of the board at an open public meeting of the Lewis County Water Conservancy Board held on September 15, 2011. The undersigned board commissioners certify that they each understand the board is responsible "to ensure that all relevant issues identified during its evaluation of the application, or which are raised by any commenting party during the board's evaluation process, are thoroughly evaluated and discussed in the board's deliberations. These discussions must be fully documented in the report of examination." [WAC 173-153-130(5)] The undersigned therefore, certifies that each commissioner, having reviewed the report of examination, knows and understands the content of the report.

X Approval: The Lewis County Water Conservancy Board hereby grants conditional approval for the water right transfer described and conditioned within the report of examination on September 15, 2011 and submits this record of decision and report of examination to the Department of Ecology for final review.

Denial: The (board name) Water Conservancy Board hereby denies conditional approval for the water right transfer as described within the report of examination on (date report of exam was signed) and submits this record of decision to the Department of Ecology for final review.

Signed:

Signature of Robert Thode, Chair, Lewis County Water Conservancy Board

Date: Sept 15, 2011 Approve X Deny Abstain Recuse Other

Signature of Barbara Burton-Burres, Member, Lewis County Water Conservancy Board

Date: 9/15/2011 Approve X Deny Abstain Recuse Other

Signature of Brian Greene, Alternate, Lewis County Water Conservancy Board

Date: 15 SEPT 2011 Approve X Deny Abstain Recuse Other

(Name), (Title) (Board Name) Water Conservancy Board

Date: Approve Deny Abstain Recuse Other

(Name), (Title) (Board Name) Water Conservancy Board

Date: Approve Deny Abstain Recuse Other

Mailed with all related documents to the Dept of Ecology (regional office name) Regional Office, and other interested parties on (date mailed) 9-28-11

If you have special accommodation needs or require this form in alternate format, please contact 360-407-6607 (Voice) or 711 (TTY) or 1-800-833-6388 (TTY).

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Lewis County
WATER CONSERVANCY BOARD
Application for Change/Transfer
 OF A RIGHT TO THE BENEFICIAL USE OF THE PUBLIC WATERS OF
 THE STATE OF WASHINGTON

RECEIVED

SEP 30 2011

WA State Department
of Ecology (SWRO)

Report of Examination

NOTE TO APPLICANT: Pursuant to WAC 173-153-130(8), the applicant is not permitted to proceed to act on the proposal until Ecology makes a final decision affirming, in whole or in part, the board's recommendation. It is advised that the applicant not proceed until the appeal period of Ecology's decision is complete.

NOTE TO AUTHOR: Read the instructions for completing a water conservancy board report of examination. Use the F11 key to move through the form.

Surface Water	<input checked="" type="checkbox"/> X	Ground Water	
DATE APPLICATION RECEIVED 3/17/2011	WATER RIGHT DOCUMENT NUMBER (i.e., claim, permit, certificate, etc.) G2-23928C	WATER RIGHT PRIORITY DATE 08/19/1975	BOARD-ASSIGNED CHANGE APPLICATION NUMBER LEWI-11-02

NAME City of Winlock			
ADDRESS (STREET) PO Box 777	(CITY) Winlock	(STATE) WA	(ZIP CODE) 98596

Changes Proposed:	<input checked="" type="checkbox"/> Change purpose	<input type="checkbox"/> Add purpose	<input type="checkbox"/> Add irrigated acres	<input checked="" type="checkbox"/> Change point of diversion/withdrawal
	<input type="checkbox"/> Add point of diversion/withdrawal	<input checked="" type="checkbox"/> Change place of use	<input type="checkbox"/> Other (Temporary, Trust, Interties, etc.) _____	

SEPA
 The board has reviewed the provisions of the State Environmental Policy Act of 1971, Chapter 43.21C RCW and the SEPA rules, chapter 197-11 WAC and has determined the application is: Exempt Not exempt

BACKGROUND AND DECISION SUMMARY

Existing Right (Tentative Determination)

MAXIMUM CUB FT/ SECOND	MAXIMUM GAL/MINUTE	MAXIMUM ACRE-FT/YR	TYPE OF USE, PERIOD OF USE				
	100	52	Irrigation, stockwater and Domestic				
SOURCE			TRIBUTARY OF (IF SURFACE WATER)				
Well							
AT A POINT LOCATED:	¼	¼	SECTION	TOWNSHIP N.	RANGE	WRIA	COUNTY.
PARCEL NO. 011987005000	NW	SW	02	11	2W	26	Lewis
LEGAL DESCRIPTION OF PROPERTY ON WHICH WATER IS USED							
That part of Joseph P. Mannen D.L.C. No. 37, Secs 2 and 3, T11N, R02W, beginning at the southeast corner of said D.L.C. thence north 1320 feet; thence west 1320 feet thence south 1320 feet; thence east 1320 feet to the point of the beginning. EAST 1320' OF SOUTH 1320' OF MANNEN DLC EXCEPT MILITARY ROAD 2-11-2W							
PARCEL NO.	¼	¼	SECTION	TOWNSHIP N.	RANGE,		
011987005000	NW	SW	02	11	2W		

Proposed Use

MAXIMUM CUB FT/ SECOND	MAXIMUM GAL/MINUTE	MAXIMUM ACRE-FT/YR	TYPE OF USE, PERIOD OF USE				
	100	58	Municipal, year round				
SOURCE			TRIBUTARY OF (IF SURFACE WATER)				
Well							
AT A POINT LOCATED:	¼	¼	SECTION	TOWNSHIP N.	RANGE	WRIA	COUNTY.
PARCEL NO. 015627000000	SW	NE	34	12	2W	26	Lewis
LEGAL DESCRIPTION OF PROPERTY ON WHICH WATER IS TO BE USED							
City of Winlock water system service area (as shown in the City's Water System Plan Update)							
PARCEL NO.	¼	¼	SECTION	TOWNSHIP N.	RANGE,		
			24,25,27-29,32-36	12	2W		

Board's Decision on the Application

MAXIMUM CUB FT/ SECOND	MAXIMUM GAL/MINUTE	MAXIMUM ACRE-FT/YR	TYPE OF USE, PERIOD OF USE				
	100	52	Municipal, year round				
SOURCE			TRIBUTARY OF (IF SURFACE WATER)				
Well							
AT A POINT LOCATED:	¼	¼	SECTION	TOWNSHIP N.	RANGE	WRIA	COUNTY.
PARCEL NO. 015627000000	SW	NE	34	12	2W	26	Lewis
LEGAL DESCRIPTION OF PROPERTY ON WHICH WATER IS TO BE USED AS APPROVED BY THE BOARD							
City of Winlock water system service area (as shown in the City's Water System Plan Update)							
PARCEL NO.	¼	¼	SECTION	TOWNSHIP N.	RANGE,		
			24,25,27-29,32-36	12	2W		

DESCRIPTION OF PROPOSED WORKS

The proposed point of withdrawal will be a new well to be drilled on a future City owned parcel. The water will be pumped into the water main that runs along SR 505, and into the City's water system for use throughout the service area. Details of the City's water system can be found in the August 2008 City of Winlock Water System Plan Update, which is available upon request.

DEVELOPMENT SCHEDULE

BEGIN PROJECT BY THIS DATE: December 1,2011 or later	COMPLETE PROJECT BY THIS DATE: 09/30/2016	COMPLETE CHANGE AND PUT WATER TO FULL USE BY THIS DATE: 09/30/2021
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REPORT

NOTE TO AUTHOR: This form reflects the minimum regulatory requirements as required in WAC 173-153-130(6). In accordance with WAC 173-153-130(5), "It is the responsibility of the water conservancy board to ensure that all relevant issues identified during its evaluation of the application, or which are raised by any commenting party during the board's evaluation process, are thoroughly evaluated and discussed in the board's deliberations. These discussions must be fully documented in the report of examination." **Completion solely of the minimum regulatory requirements may not constitute a fully documented decision.**

BACKGROUND [See WAC 173-153-130(6)(a)]

On March 17, 2011 Arnie Sugar of HWA GeoSciences Inc., on Behalf of the City of Winlock of Winlock, Washington filed an application for change of point of withdrawal, place of use, and purpose of use for permit # G2-23928C. The application was accepted at an open public meeting on March 17, 2011, and the board assigned application number LEWI-11-02.

Attributes of the water right as currently documented

Name on certificate, claim, permit: Clay M. Hartzell.

Water right document number: cert # G2-23928C

As modified by certificate of change number: None

Priority date, first use: August 19, 1975

Water quantities: Qi: 100 gpm Qa: 62 acre ft./ year

Source: Well

Point of diversion/withdrawal: NW/SW Sec 02 T11N R2W

Purpose of use: Irrigation, 40 acres; stockwater, domestic supply

Period of use: May 1 through October 1 for irrigation and continuously for stockwater and domestic

Place of use: NW/SW Sec 02 T11N R2W

Existing provisions: The access port as required on the permit shall be maintained at all times. Owing to the proximity of neighboring wells, the certificate holder is reminded of his responsibility toward same and advised that he may be required to regulate his withdrawal pumping rate if existing rights are injuriously affected.

Tentative determination of the water right

The tentative determination is provided on the front page of this report.

History of water use

- 1975: Drilled well. 160 ft deep, installed 6" casing and well seal, obtained certificate of water right.
- 1976: Installed 5 hp submersible pump and 5 hp booster pump.
- Installed approximately 2000 ft of 4" pvc mainline w/risers.
- Purchased 30 aluminum 3" laterals w/ 5 gpm sprinklers.
- These 40' sprinkler pipes allowed pumping of 100 gpm covering nearly 1300 ft per setting.
- At the certificated maximum instantaneous withdrawal of 100 gpm, 60 AF could be applied over 40 acres in 136 days, within the 150 day irrigation season.
- 1976-2003: Water used for irrigation of pasture and hay.
- 1992-2007 Water used for Nursery Operation including 0.5 acres of Nursery Stock and 5000 square feet of nursery.
- 2002 Additional well drilled for exempt uses.
- 2006-2007 Irrigated 20 acres of Christmas trees.
- Nursery operation continued, but as an exempt use from the exempt well.

Previous changes

Sale of small acreages to Lewis County and various individuals leaving total acreage of 34.69 acres,. The two small parcels that were sold reduced the acreage to 86.725% of the original acreage.

SEPA

The board has reviewed the proposed project in its entirety. The governmental action relating to the subject application is exempt from the "detailed statement" preparation requirements of SEPA (WAC 197-11-800(4)). The application involves neither appropriations of one (1) cubic foot per second or more of surface water for irrigation purposes nor appropriations of 2,250 gallons per minute of ground water for any purpose.

Other

None

The information or conclusions in this section were authored and/or developed by: Barbara Burton-Burres, Robert Thode, and Brian Greene.

COMMENT AND PROTESTS [See WAC 173-153-130(6)(b)]

Public notice of the application was given in the East County Journal on 3/30/2011 and on 4/06/2011. Protest period ended on 5/06/2011.

There were no protests received during the 30 day protest period. In addition, no oral and written comments were received at an open public meeting of the board or other means as designated by the board.

The information or conclusions in this section were authored and/or developed by Barbara Burton-Burres, Robert Thode, and Brian Greene.

INVESTIGATION [See WAC 173-153-130(6)(c)]

The following information was obtained from a site inspection conducted by Brian Greene on 5/31/2011, technical reports, research of department records, aerial photos, infrared images and conversations with the applicant and/or other interested parties.

Proposed project plans and specifications

Pending the culmination of the sale between Clay M Hartzell and the City of Winlock, water from the proposed new point of withdrawal will be pumped into the water main that runs along SR 505, and into the City's water system for municipal use throughout the service area. Details of the City's water system can be found in the August 2008 City of Winlock Water System Plan Update, which is available upon request. The change from seasonal irrigation to year-round municipal use will distribute withdrawals over the entire year rather than just the dry season, which will have a positive impact on basin water balance and dry season stream flow. Municipal use will also be less consumptive than agricultural, as much of the water will return to the City's reclaimed water treatment facility, for discharge into Olequa Creek. There is at least one other known application for water right transfer from irrigation to municipal in this area. Senior rights were reviewed.

Other water rights appurtenant to the property (if applicable)

Exempt well.

Public Interest (groundwater only)

The proposed transfer is subject to RCW 90.44.100 and therefore, cannot be detrimental to the public interest, including impacts on any watershed planning activities. The proposed water right transfer is in the public interest because it provides maximum net benefit for the people of Washington and it protects and enhances the natural environment. The City of Winlock is required by the Growth Management Act to have sufficient water to serve the City and its urban growth area, which was designated by Lewis County and upheld by the Western Washington Growth Management Hearings Board. The proposed transfer provides additional water for the City's municipal needs. The proposed transfer will also assist the City in continuing to supply water for the Cardinal Glass plant, ensuring the continued employment of over 200 people in Lewis County. Providing water to support Winlock's anticipated growth needs and ensuring employment provides maximum benefit to Washington citizens.

Tentative Determination

In order to make a water right change decision, the Board must make a tentative determination on the validity and extent of the right. The Board has made the tentative determination as displayed upon the first page of this report. There are several circumstances that can cause the board's tentative determination to differ from the stated extent of the water right within water right documentation. Water right documents attempt to define a maximum limitation to a water right, rather than the actual extent to which a water right has been developed and maintained through historic beneficial use. Additionally, except for a sufficient cause pursuant to RCW 90.14.140, water rights, in whole or in part, not put to a beneficial use for five consecutive years since 1967 may be subject to relinquishment under Chapter 90.14.130 through 90.14.180 RCW. Water rights may additionally be lost through abandonment. The Board's tentative determination was based upon the following findings:

A percentage of the property was sold, and the remaining water right was calculated to be 56.6 AFY. This assumes a starting point of 62 AFY reduced to 91.29% for the property sales.

Determination was made that the last 5 years of continuous use were 2003 through 2007. All subsequent use of water on the property was from an exempt well for exempt purposes.

Highest use years were 2003 and 2006. Power use, crop information and owner testimony uphold full use of the water right in 2003. In 2006, our calculations indicate that 32.0 AFY were used. This is based on 20 acres of Christmas trees with an estimated crop demand of $12'' \times 75\% \text{ efficiency} \times 20 \text{ acres} = 25 \text{ AFY}$, plus the 5000 square foot nursery uses approximately 1.5 acre/foot/year (AFY) and the 0.5 acre nursery stock uses 3.6 AFY, for a total of 5 AF for nursery operations. The 25 AFY for trees plus 5 for nursery plus the domestic and stock water equals 32.0 AFY.

The average of these two highest years is 44.3 AFY.

Geologic, Hydrogeologic, or other scientific investigations (if applicable)

PROJECT SITE

The proposed location for the new ground water withdrawal is located approximately one mile northwest of the Hartzell water right and well. Both sites lie on the Grand Prairie, a sparsely wooded upland located between the Olequa Creek drainage and a bluff on the western end of the Cowlitz River drainage. The existing water right is located along Military Road, and the proposed point of withdrawal is located along Highway 505, about a mile east of the town of Winlock. Both locations are within in the Olequa Creek drainage basin, in the Cowlitz watershed, WRIA 26.

The area receives an average of 48 inches of rain per year, mostly during the period November to March.

REGIONAL HYDROGEOLOGY

The regional hydrogeology of the sub-basin has been described in Weigle and Foxworthy (1962). The site is approximately 4 miles north west of the Cowlitz River, a regional physiographic feature that drains a large portion of southwest Washington. The geology of the Grand Prairie area (between Winlock and I-5) is mapped as the Logan Hill Formation. This unit is comprised of outwash sands and gravels extending to at least 200 feet below the surface in the general area surrounding the site. Due to its age, the top 50 to over 200 feet has completely weathered to clay. Below this, the Logan Hill Formation becomes predominately silt. At depths of 50 to 200 feet, saturated sands and gravels known as the Logan Hill Aquifer occur, overlying sedimentary bedrock. The Logan Hill Aquifer is the primary regional water supply aquifer. Some limited ground water production is also obtained from shallow layers in the upper weathered Logan Hill Formation, and from fractured bedrock aquifers beneath it.

The Logan Hill Aquifer is largely contiguous within the mapped area of Logan Hill Formation and serves as the principal water supply aquifer within the area. The aquifer thins near the southern extents of the Logan Hill Formation, south of Winlock. High confining pressures, in excess of 60 feet, are found over much of the Logan Hill Aquifer extents. Weigle and Foxworthy (1962) report the ground water gradient under the Grand Prairie area is to the southwest. Figures 1, 2, and 3 in the Supporting Information show a location map and two geologic cross sections through the Logan Hills Aquifer. These cross sections also show a westerly gradient, towards Olequa Creek, and show the Hartzell well is in the same source of supply as the proposed new point of withdrawal, and largely isolated from surface waters across the aquifer's extent. Ground water in the Logan Hill aquifer is recharged by percolation of precipitation directly on the formation, and possibly recharged from bedrock uplands east of the project area. Recharge to the regional aquifer has been estimated at 12 inches per year out of 48 inches total precipitation. The remaining 36 inches are lost to evapotranspiration, or discharged to surface water via runoff, shallow ground water flow (interflow), or deeper ground water flow.

Available well logs indicate the Logan Hill Aquifer is contiguous over the Grand Prairie area, terminating to the east at the bluff near the I-5 / SR505 interchange. To the west, the aquifer is present on both sides of the Olequa Creek valley near Winlock, however it does not appear contiguous under the creek. Although no well logs are available to provide geologic information for the areas immediately adjacent to the Olequa Creek valley, the Logan Hill Aquifer is reported to discharge to Olequa Creek in this area, as evidenced by springs (Ecology, 2004). Based on the higher aquifer head (approximately 90 feet) relative to the creek elevation at locations near the creek, aquifer materials (unweathered, permeable sands and gravels) do not likely crop out at the valley walls. Discharge of the Logan Hill aquifer to the creek is likely moderated significantly through low permeability weathered Logan Hill soils along the valley walls, formed in-situ by the same processes that formed the aquitard overlying the Logan Hill aquifer. This relationship also likely holds at the eastern margins of the Logan Hill Aquifer in the Grand Prairie area, at the bluff near the I-5 / SR505 interchange. Although some springs are reported, and several drainages have developed along the bluff face, no major streams or surface water flows are mapped here, suggesting no major discharge of the Logan Hill Aquifer at its eastern terminus.

The adjacent mapped geologic unit, the Lacamas Creek Formation, contains a shallow aquifer of similar (but thinner) composition to the Logan Hill, with water levels up to 200 feet lower than potentiometric surfaces in the Logan Hill aquifer. This head difference, and the absence of flowing artesian pressures in wells near the base of the bluff, also suggest minimal discharge of Logan Hill ground water to the east.

LOCAL HYDROGEOLOGY

Drillers' logs from nearby water wells obtained from Ecology indicate ground water was encountered in sands and gravels of the Logan Hill Formation at depths ranging from around 50 to 180 feet below ground surface (bgs) within 0.5 mile of the site. The thickness of the Logan Hill aquifer (based on the few wells that appeared to fully penetrate the aquifer) ranges from 30 to 81 feet, with a thickness of at least 60 feet reported at the Hinen/Mower well, which did not fully penetrate the aquifer. Static

Continued

water levels in nearby wells range mostly from around 20 to 120 feet bgs (48 feet at the Hartzell well, 70 feet bgs at the Hinen/Mower well near the proposed new City well), typically 20 to 100 feet above the aquifer, indicating confined aquifer conditions.

A confining layer, or aquitard, exists above the aquifer and consists of low- permeability elastic silt, clay, and gravels that are highly to completely weathered (i.e., altered to clay). The aquitard at the Hartzell well is 109 to 123 feet thick; at the Hinen/Mower well near the proposed new City well it is 125 feet thick. Based on available well logs, the aquitard extends regionally over a large area. The aquitard limits hydraulic connection between the confined, lower aquifer and any shallow, perched ground water and surface waters. Surficial drainages and streams are therefore not in hydraulic continuity with the Logan Hills aquifer.

GROUND WATER QUALITY

Ground water quality in the area, based on testing of other City wells, is good, according to the August 2008 City of Winlock Water System Plan Update.

AVAILABILITY OF GROUND WATER

Wells completed in the Logan Hills Aquifer within 0.5 mile of the proposed new point of withdrawal have reported yields of three to 230 gpm. The Hartzell well tested at 100 gpm at time of drilling, the Hinen well (near the proposed new point of withdrawal) tested at 110 gpm. Specific capacities in the area range from approximately 0.1 to 50 gpm/ft. Based on estimated specific capacity values, the theoretical yield of wells installed in the Logan Hills Aquifer in this area would range from less than 10 gpm to over 1,000.

The closest City well with a recorded pumping test is the '603' well, located in the SE/SW quarter-quarter of Section 27 (approximately one-half mile northwest of the applicant well). The well was pumped at a rate of 200 gpm with four feet of drawdown. The well is completed with approximately 50 feet of perforations in the Logan Hills Aquifer.

Other

None

The information or conclusions in this section were authored and/or developed by Bob Thode.

CONCLUSIONS [See WAC 173-153-130(6)(d)]

Tentative determination (validity and extent of the right)

This water right is valid, in good standing, and 44.3 AFY are eligible to be transferred.

Relinquishment or abandonment concerns

We determined that there was a partial relinquishment due to reduction in the use toward the end of the most recent 5 years of continuous use.

Hydraulic analysis

Although no hydraulic analysis has been performed on the original or proposed points of withdrawal, sufficient information exists on the Body of Water that the transfer is in to ascertain ground water and aquifer properties. Most of the domestic, irrigation, and City of Winlock wells in the area are completed with perforations or open casings, limiting the production capacity. The nearest reliable aquifer testing data is available for the Cardinal Glass plant site, located approximately four miles north of the site. A well completed in the same Logan Hills Aquifer at the Cardinal Glass property was constructed using engineered design, wire wrapped screen, and development methods typical of modern production wells. Aquifer properties (e.g., transmissivity, storage, etc.) were determined at this well during multiple long term and step-drawdown pumping tests. This well was estimated to have a long term safe yield of approximately 490 gpm. The City '603' well, located approximately one-half mile northwest of the proposed new point of withdrawal, was pumped at a rate of 200 gpm with four feet of drawdown. The Hinen well (located 1000 feet west of the proposed new point of withdrawal) tested at 110 gpm at time of drilling; the Hartzell well tested at 100 gpm at time of drilling.

Based on these wells, and transmissivities estimated from specific capacity information derived from existing well logs at and near the proposed new point of withdrawal, the Logan Hills aquifer is fully capable of supporting the proposed transfer without impairment to senior water rights holders including exempt rights.

Consideration of comments and protests

None received.

Impairment

POTENTIAL FOR IMPAIRMENT OF EXISTING WATER RIGHTS

Twenty-seven ground water certificates exist within one mile of the proposed point of ground water withdrawal. The certificated ground water right-holders obtain ground water from the Logan Hills aquifer, which is the same water-bearing

zone of the proposed transfer. The certified rates are for instantaneous withdrawals of 45 to 350 gpm, at annual withdrawal rates of three to 224 acre-feet per year, respectively. The uses for these rights include municipal, irrigation and domestic supply. The nearest point of certified ground water withdrawal is approximately one-half mile to the east (200 gpm; 34 -acre-feet/year).

The combined totals for ground water rights issued within a one-mile radius of the project site is 3,791 gpm and 1,341 acre-feet/year. The transfer would not increase the total amount withdrawn, and would spread the withdrawal over the entire year rather than the dry (growing) season.

No claimed ground water rights occur within 1/2-mile of the proposed point of ground water withdrawal.

The proposed transfer would not impair senior water rights due to no net increase in ground water withdrawal from the Logan Hill Aquifer. The proposed transfer of the point of withdrawal approximately one mile northwest of the current Hartzell well location would not impair any senior water rights due to the high confining pressures in the Logan Hill aquifer, and low predicted drawdowns beyond a few hundred feet of any new withdrawal. There are no senior water rights within 1,000 feet of the proposed new point of withdrawal, which is well outside the likely radius of influence of a pumping well, estimated at a few hundred feet.

A domestic / exempt well is located around 400 feet east of the proposed new City well. This well is also completed in the confined Logan Hills aquifer and the log indicates 69 feet of confining pressure (above the top of the water bearing zone). Distance-drawdown analysis conducted at the Cardinal Glass well in the Logan Hills aquifer north of the proposed new point of withdrawal indicates around 8 feet of drawdown at 400 feet from a well pumping at 200 gpm. The proposed new point of withdrawal is therefore unlikely to impair even the closest well.

Six surface water certificates have been issued within a one-mile radius of the location of the proposed ground water withdrawal. The points of surface water withdrawal for these three certificated rights are Olequa Creek and an unnamed spring. The Logan Hills aquifer in this area may partially discharge to Olequa Creek. Impairment of surface water rights, including instream flows, is unlikely due to no net increase in ground water withdrawal from the Logan Hill Aquifer in the area where it may eventually discharge to Olequa Creek.

Public Interest

The proposed water right transfer is in the public interest because it provides maximum net benefits for the people of Washington and it protects and enhances the natural environment. The City of Winlock is required by the Growth Management Act to have sufficient water to serve the City and its urban growth area, which was designated by Lewis County and upheld by the Western Washington Growth Management Hearings Board. The proposed transfer provides additional water for the City's municipal needs. The proposed transfer will also assist the City in continuing to supply water for the Cardinal Glass plant, ensuring the continued employment of over 200 people in Lewis County. Providing water to support Winlock's anticipated growth needs and ensuring employment, while retaining some water right for irrigation use, provides maximum benefit to Washington citizens. The change from seasonal irrigation to year-round municipal use will distribute withdrawals over the entire year rather than just the dry season, which will have a positive impact on basin water balance and dry season streamflow.

Other

The board also considered the previous provisions associated with the water right as identified in the background section of this report when making its decision.

DECISION [See WAC 173-153-130(6)(e)]

It is the board's decision that :

- 44.3 AFY is available for transfer
- The maximum withdrawal rate shall be 100 gpm
- The proposed use shall be changed to Municipal and year round use.
- The point of withdrawal shall be changed to a well located on parcel number 015627000000 in the SW/NE Sec 34, T12N, R2W

The information or conclusions in this section were authored and/or developed by Bob Thode.

PROVISIONS [See WAC 173-153-130(6)(f)]

Conditions and limitations

The sale between Clay Hartzell and the City of Winlock must be finalized.

Meter Installation

An approved measuring device shall be installed and maintained for the new well constructed under this water right. In accordance with "Requirements for Measuring and Reporting Water Use" Chapter 173-173 WAC.

Mitigation (if applicable)

None required

Continued

Construction Schedule

Year Task

-
- 0 Transfer approved / permit issued
 - 1 New well site short plat finalized
 - 2 New well site property transfer completed
 - 3 Well and water line engineering, plans/specifications
 - 4 Well and water line construction
 - 5 Well /aquifer/water testing
 - 10 Water put to beneficial use / submit Proof of Appropriation of Water affidavit

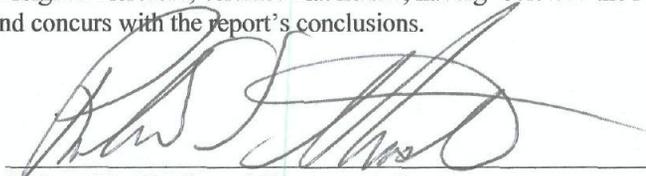
Other

None

The information or conclusions in this section were authored and/or developed by Brian Greene.

The undersigned board commissioner certifies that he/she understands the board is responsible "to ensure that all relevant issues identified during its evaluation of the application, or which are raised by any commenting party during the board's evaluation process, are thoroughly evaluated and discussed in the board's deliberations. These discussions must be fully documented in the report of examination." [WAC 173-153-130(5)] The undersigned therefore, certifies that he/she, having reviewed the report of examination, knows and understands the content of this report and concurs with the report's conclusions.

Signed at Chehalis, Washington
This 15th day of September, 2011



Robert Thode, Board Representative



Barbara Burton-Burres, Board Representative

Lewis County Water Conservancy Board

If you have special accommodation needs or require this form in alternate format, please contact 360-407-6607 (Voice) or 711 (TTY) or 1-800-833-6388 (TTY).

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Attachments:

- Water right certificate
- Hartzell well log
- Figure 1 Vicinity map
- Figure 2 Location map
- Figure 3 Plat map / air photo
- Electric bills
- Electricity usage graph
- Electricity usage tables and calculations
- Pump / irrigation photos
- Historic air photos
- Geologic Cross Section Figure 1 Location Map
- Geologic Cross Section A - A'
- Geologic Cross Section B - B'
- Cross section well logs
- Affidavit of Mr. Clay Hartzell