File NR CG2-GWC1370@1
WR Doc ID 5161058

DEPARTMENT OF ECOLOGY
State of Washington

State of Washington
REPORT OF EXAMINATION
FOR WATER RIGHT CHANGE

PRIORITY DATE
December 7, 1951

WATER RIGHT NUMBER
CG2-GWC1370@1

MAILING ADDRESS
LAKEWOOD WATER DISTRICT
PO BOX 99729
LAKEWOOD WA 98496

SITE ADDRESS (IF DIFFERENT)

Total Quantity Authorized for Withdrawal or Diversion

WITHDRAWAL OR DIVERSION RATE	UNITS	ANNUAL QUANTITY (AF/YR)
1500	GPM	1193

Total withdrawals or diversions from all sources must not exceed the total quantity authorized for withdrawal or diversion listed above.

Purpose

	WITHDRAWAL OR DIVERSION RATE			ANNUAL QUANTITY (AF/YR)		
PURPOSE	ADDITIVE	NON-ADDITIVE	UNITS	ADDITIVE	NON-ADDITIVE	PERIOD OF USE (mm/dd)
Municipal	1500		GPM	1193		01/01 - 12/31

REMARKS: This water right shares a point of withdrawal (Well E-3) with CG2-GWC149@1, CG2-GWC148@1, and CG2-GWC7320@1)

IRRIGATED ACRES		PUBLIC WATER SYSTEM INFORMATION	
ADDITIVE	NON-ADDITIVE	WATER SYSTEM ID	CONNECTIONS
		45550	

Source Location

COUNTY	WATERBODY	TRIBUTARY TO	WATER RESOURCE INVENTORY AREA
PIERCE	GROUNDWATER	N/A	12-CHAMBERS-CLOVER
PIERCE	GROUNDWATER	N/A	12-CHAMBERS-CLOVER

SOURCE FACILITY/DEVICE	PARCEL	WELL TAG	TWP	RNG	SEC	QQ Q	LATITUDE	LONGITUDE
WELL I-1	0220342009	AON785	20N	02E	34	SWNW	47.177384	- 122.547150
WELL E-3	0219102014	ABS158	19N	02E	10	SWNW	47.14875	-122.54354

Datum: NAD83/WGS84

Place of Use (See Attached Map)

LEGAL DESCRIPTION OF AUTHORIZED PLACE OF USE

The place of use (POU) of this water right is the service area described in the most recent Water System Plan/Small Water System Management Program approved by the Washington State

Department of Health, so long as the water system is and remains in compliance with the criteria in RCW 90.03.386(2). RCW 90.03.386 may have the effect of revising the place of use of this water right.

Proposed Works

Well I-1: 18 inches in diameter 267 feet deep, screened in Aquifer C
Well E-3: 16 inches in diameter x 271 feet deep, screened in Aquifer C

Development Schedule

BEGIN PROJECT	COMPLETE PROJECT	PUT WATER TO FULL USE
Started	Completed	In Full Use

Measurement of Water Use

How often must water use be measured?	Weekly
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 (gpm)

Provisions

Wells, Well Logs and Well Construction Standards
All wells constructed in the state must 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 which 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 must be decommissioned.

All wells must 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 must remain attached to the well. If you are required to submit water measuring reports, 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. This Chapter 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.

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.

Proof of Appropriation
The water right holder must 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 water right. 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, will 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. CG2-GWC1370@1, 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.

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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 Olympia, Washington, this _____ day of _____ 2014.

_____

Michael J. Gallagher, Section 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
Tammy Hall, Department of Ecology
Water Right Control Number CG2-GWC1370@1
Lakewood Water Dist

BACKGROUND

On February 14, 2012 Randall M. Black, representing Lakewood Water District (LWD), filed an *Application for Change of Water Right* to add a point of withdrawal to Ground Water Certificate (GWC) 1370.

GWC 1370, with a priority date of December 7, 1951 authorizes 1,500 gallons per minute (gpm) and 1193 acre-feet (ac-ft) per year from Well I-1 for municipal supply purposes.

See Attachment #1

This report serves as the written findings of fact concerning Water Right Application Number CG2-GWC1370@1.

Attributes of the Existing Water Right and Proposed Change

Table 1. Attributes of Ground Water Certificate 1370 and Proposed Change

	Existing	Proposed
Name	Lakewood Water District	Same
Priority Date	December 7, 1951	
Change Application Date		02/14/2012
Instantaneous Rate	1500 gpm	Same
Annual Quantity	1193 ac-ft per year	Same
Purpose(s) of Use	Municipal supply purposes	Same
Period of Use	Continuous	Same
Place(s) of Use	The place of use (POU) of this water right is the service area described in the most recent Water System Plan/Small Water System Management Program approved by the Washington State Department of Health, so long as the water system is and remains in compliance with the criteria in RCW 90.03.386(2). RCW 90.03.386 may have the effect of revising the place of use of this water right	Same

Table 2. Proposed Sources of Withdrawal.

Source Name	*Parcel*	*Well Tag*	*Twp*	*Rng*	*Sec*	*QQ Q*	*Latitude*	*Longitude*
WELL I-1	0220342009	AON785	20N	02E	34	SWNW	47.177384	- 122.547150
WELL E-3	0219102014	ABS158	19N	02E	10	SWNW	47.14875	-122.54354

Table 3. Existing Source of Withdrawal.

Source Name	*Parcel*	*Well Tag*	*Twp*	*Rng*	*Sec*	*QQ Q*	*Latitude*	*Longitude*
WELL I-1	0220342009	AON785	20N	02E	34	SWNW	47.177384	- 122.547150

Legal Requirements for Proposed Change

The following is a list of requirements that must be met prior to authorizing the proposed change in GWC1370.

Public Notice

The applicant published notice for this project proposal in *The News Tribune* of Pierce County once a week for two consecutive weeks beginning May 24 and ending May 31, 2012. The Department of Ecology received no protests or letters of concern in response to this notice.

State Environmental Policy Act (SEPA)

A SEPA determination evaluates if a proposed withdrawal will cause significant adverse environmental impacts. A SEPA threshold determination is required for:

1) Surface water applications for more than 1 cubic feet per second (cfs). For agricultural irrigation, the threshold increases to 50 cfs, if the project isn't receiving public subsidies.
2) Groundwater applications requesting more than 2,250 gpm.
3) Projects with several water right applications where the combined withdrawals meet the conditions listed above.
4) Projects subject to SEPA for other reasons (e.g., the need to obtain other permits that are not exempt from SEPA).
5) Applications that are part of several exempt actions that collectively trigger SEPA under WAC 197-11-305.

At the same time this *Application for Change of Water Right* was filed, LWD has also filed other *Applications for Change of Water Right* to add Well E-3 to three more water right certificates. Even though the combined instantaneous amounts transferred may collectively exceed the 2,250 gpm SEPA threshold, Well E-3 can only produce 740 gpm. Therefore, the requests are considered to be categorically exempt from SEPA.

Water Resources Statutes and Case Law

RCW 90.03.380(1) states a water right put to beneficial use may be changed. The point of diversion, place of use, and purpose of use may be changed, as long as it would not harm or injure other water rights.

The Washington Supreme Court has held that Ecology is required to make a tentative determination of extent and validity of the claim or right when processing an application for change to a water right. This

is necessary to establish whether the claim or right is eligible for change. (*R.D. Merrill v. PCHB* and *Okanogan Wilderness League v. Town of Twisp.)*

RCW 90.44.100 allows Ecology to amend a ground water permit(or claim) to allow the user to construct a replacement or additional well at a new location outside of the location of the original well, or to change the manner or place of use of the water, if:

(a) For replacement wells, the user must discontinue use of the original well and properly decommission the original well.
(b) For additional wells, use from the original well can continue, but the combined total withdrawal from all wells must not enlarge the right.
(c) Other existing rights must not be impaired.
(d) The wells must draw from the *same body of public groundwater*. Sources in the same *body of public groundwater are*:
   - Hydraulically connected.
   - Have a common recharge (catchment) area.
   - Share a common flow regime.

INVESTIGATION

The material reviewed in support of this application included the following:

- The State Surface Water Codes, administrative rules, and policies.
- Department of Ecology's Water Right Tracking System (WRTS) database.
- Topographic and local area maps.
- Telephone interviews and e-mail correspondence from Burt Clothier of Robinson Noble, representing LWD.
- LWD's Draft Water System Plan, Murray Smith & Associates, November 2012.
- Notes from a site visit March 27, 2014.
- Hydrogeologic memorandum written by Tammy Hall, licensed hydrogeologist, with Water Resources Southwest Regional Office, dated April 16, 2014.
- Technical review of proposed water right transfers, correspondence dated July 3, 2013 from Burt Clothier of Robinson Noble.

Project Location and Site Description

LWD is situated in southern Pierce County, south of Tacoma. LWD provides water service to the City of Lakewood and surrounding communities and currently serves 16,834 connections and a population of roughly 61,000 people.

LWD was recently made aware of an error of omission that occurred when Well E-3 was constructed and brought on-line in 1977. Well E-3 was incorrectly listed as an additional point of withdrawal for Certificate 88-A, even though the District had relinquished this certificate in 1966. LWD was unaware of this error and this change proposes to add Well E-3 as an additional point of withdrawal to Certificate 1370 (Well I-1).

Determination of Defacto Change of GWC1370

In some situations, changes to historic uses associated with water rights have been made without first obtaining authorization for the changes pursuant to chapters 90.03 and 90.44 RCW. Such unauthorized changes to existing water rights are commonly referred to as *defacto*, or *after-the-fact changes*.

The current use of GWC 1370 can be considered a *de facto change* because the fact pattern for historical and current water use has been consistent with the intent of the original water right. All other attributes of the right have remained constant and do not constitute an enlargement of the right.

History of Water Use

The District has operated to provide municipal water supplies to the Lakewood area of Pierce County since 1943.

Well E-3 has been in operation since 1977. Wells I-1 and E-3 are roughly two miles apart and completed in the same aquifer.

Well E-3 typically is pumped at 740 gpm. Annual production over the past five years ranged from a low of 324.37 ac-ft in 2013 to a high of 526 ac-ft in 2010.

Well I-1 averages 495 gpm and is used for seasonal peak demand due to low yield and high iron content.

Proposed Use

This proposed change only will add a point of withdrawal to GWC1370. No other changes are proposed. This change will only exercise existing rights. All necessary equipment and infrastructure is in place.

Other Rights Appurtenant to the Place of Use

LWD supplies water to customers within their service area. LWD also is a wholesale distributor, supplying water through interties with the Town of Steilacoom, Rainier View Water Company, Spanaway Water Company, and Summit Water and Supply Company. Using demand projections, LWD has sufficient water rights to meet projected average day and maximum day demands through at least 2030 for all their customers.

LWD's water rights are summarized in Attachment #2.

Hydrologic/Hydrogeologic Evaluation

Hydrogeologic Setting

A conceptual model developed by the USGS (Savoca and others, 2010) describes the subsurface in the project area as consisting of layers of alternating water-bearing (aquifer) and non-water-bearing (confining layers) sediments. These units are defined solely by hydrogeologic properties without regard to geologic origin or age.

All five of the regional aquifer units described by USGS are present in the vicinity of the District and they have wells completed in each aquifer system. The majority of the District's water production comes from wells in Aquifers A and E. Aquifer C wells are slightly less productive, on average, than those in the

systems above or below. The District has only one well in the deepest system, Aquifer G. The subject wells for this change application are all completed in Aquifer C).

The hydrostratigraphic units involved in this proposed change are described below (Savoca and others, 2010)

- **Aquifer A1** – The unit represents a water-table aquifer and is often in direct continuity with surface water bodies. Aquifer A1 consists mostly of stratified silt, sand, and gravel deposits of Vashon recessional outwash (Qvr) of the Frasier glaciation. Locally, it includes very coarse outwash gravels of the Steilacoom Gravel (Qvs) at land surface. The unit is typically a few feet up to about 50 feet thick.

- **Confining unit A2** – This unit is dominated by glacial till deposits of the Vashon glaciation (Qvt), which are occasionally present at land surface when Aquifer A1 is not present. Ice-contact and fine-grained glaciolacrustrine deposits are also included in this unit, mainly around the major lakes. The material is typically low-permeability mixtures of clay, silt, sand and gravel, often compacted and dense. In the local area the unit averages about 40 feet in thickness, but this can increase to over 100 feet in a few places.

- **Aquifer A3** – This unit is mainly composed of deposits from the Vashon advance outwash (Qva). In some areas, older, pre-Fraser coarse grained non-glacial (Qpfc) deposits are also included in this unit. The material is usually well-sorted sand or sand and gravel, sometimes with lenses of silt or clay. Locally, the aquifer appears to be confined by the overlying till. The District has several wells that produce water from this system, but only one well (L-2) is nearby the subject wells. Some of the District's more easterly wells completed in this unit are highly productive, and historic records and modeling suggest the aquifer supports large volumes of withdrawal across the region. Aquifer A3 is exposed at the bottoms of both American and Gravelly Lakes and along Chambers Creek, roughly from confluence with Flett Creek to Chambers Bay. It is otherwise not present at surface in the Lakewood area.

- **Confining unit B** – This unit is dominated by deposits of the Olympia Beds (Qob), low-permeability silts and clays from the Olympia-age interglacial period, and glaciolacrustrine clays from the early Vashon called the Lawton Clay (Qvlc). Isolated areas of the unit can contain coarser-grained sands that can support limited water production, but these areas are uncommon and discontinuous. The unit is typically more than 50 feet thick in the area and results in strong confinement of the underlying aquifer.

- **Aquifer C** – Sometimes also called the sea-level aquifer due its coincident elevation, this system is somewhat less productive than the other aquifers in the Lakewood area. The unit is usually sand and gravel deposits of pre-Olympia age glacial drift, but lower-permeability deposits of silt, clay or till are sometimes encountered. Productive zones in this unit seem to be more areally discontinuous across the region than is the case with Aquifers A or E. The aquifer is 70 to 150 feet thick in most places in the Lakewood area.

Site Conditions

Wells E-3 and I-1 are roughly 2 miles apart. Well I-1 is about ½ mile north and west of Lake Steilacoom. Well E-3 is about ½ mile west of Gravelly Lake. The two lakes are about ½ mile apart.

Wells E-3 and I-1 and are very similar in construction and production capacity. Both a
are completed in the same aquifer, Aquifer C, and the same body of public groundwater.

Table 5. Details of Wells E-3 and I-1.[1]

	Well E-3	**Well I-1**
Well Tag	ABS158	AON785
Date Completed	July 1, 1977	February 14, 1952
Well head elevation (ft above mean sea level, msl)	275.5	240
Well diameter (inches, in)	16	18
Completed depth (ft below ground surface, bgs)	271	267
Screened interval (ft bgs)	210-264	211-267
Hydrologic unit	Aquifer C	Aquifer C
Static water level (ft bgs)	53.31	70
Date measured	12/31/2012	6/26/2013
Pumping capacity (gpm)	1000	800

[1]From Robinson Noble, 2013

Impairment Considerations

Impacts to Existing Water Users

Water right changes have greatest potential to affect wells completed in the same aquifer near the new point of withdrawal.

WAC 173-150-060 specifies that only impacts to "qualifying withdrawal facilities" fit the legal definition of impairment. This definition means wells can be affected as long they are not impaired. Qualifying withdrawal facilities are wells completed in the same aquifer as the new point of withdrawal. The well must span the aquifer's entire saturated thickness and the pump elevation must allow variation in seasonal water levels.

The proposed change is not expected to affect area users. The area surrounding both wells is in LWD's service area and few private wells exist. Well E-3 has been in use since 1977 without detrimental effects.

Ecology's WRTS database lists the following in roughly one mile from Well E-3:

- 12 surface water certificates for irrigation and domestic supply from Gravelly and American Lakes.
- 13 groundwater and 15 surface water claims were filed for irrigation and domestic supply. Surface water use is from Gravelly and American Lakes. The validity of these claims is not known.

Ecology's well log data base lists only 10 wells in about two miles of Well E-3.

- Three are LWD's own wells completed in deeper aquifers.

- Three are Washington Social and Health Services wells at Western State Hospital. These are also completed in deeper aquifers.
- Two are completed in the shallow A1 aquifer.
- Two are completed in Aquifer C but are more than a mile away.

Impacts to Surface Water

Baseflow to surface water in the area is supported by Aquifers A1 and A3. Aquifer A1 supports Steilacoom Lake and both Chambers and Clover Creeks. Aquifer A3 is hydraulically connected to American and Gravelly Lakes and drains to the lower reaches of Chamber Creek at or below the confluence with Leach Creek, but otherwise has an indirect relationship to the surface water system. (R & N, 2013)

Aquifers A1 and A3 are separated from Aquifer C by Confining Unit B. Impacts from increased pumping in Aquifer C will be a result from induced leakage through Unit B. Leakage would be greater closer to the wells being pumped and would decrease with distance. Because Aquifer A3 is highly transmissive, effects will even be diffuse over a large area.

Impairment of Minimum Instream Flow Water Rights

"Instream flow" is a specific stream flow (typically measured in cubic feet per second, or cfs) at a specific location for a defined time, and typically following seasonal variations. Instream flows are usually defined as the stream flows needed to protect and preserve instream resources and values, such as fish, wildlife and recreation. Instream flows are most often described and established in a formal legal document, typically an adopted state rule.

Once established, a minimum flow constitutes an appropriation with a priority date as of the effective date of the rule establishing the minimum flow (RCW 90.03.345). Thus, a minimum flow set by rule is an existing right which may not be impaired (RCW 90.03.345; RCW 90.44.030).

Chapter 173-512 WAC, the Instream Resources Protection Program (IRPP) for the Clover-Chambers Creeks Basin (WRIA12) closes Chambers Creek and other surface water bodies to further consumptive appropriations that would harmfully impact instream values. However, WAC 173-512-040 also states natural relationships between surface and groundwater can be used when making permitting actions relating to ground water withdrawals.

This proposed change moves leakage effects south, further from the reaches of Chambers Creek where Aquifer A3 is exposed at surface. Because storage in American and Gravelly Lakes buffers impacts felt in Aquifer A3, leakage induced through Unit B will be less and impacts to Clover Creek are unlikely. (R & N, 2013)

Public Interest Considerations

Approving the proposed change is not contrary to the public interest.

Consideration of Protests and Comments

No protests were filed against this application.

Conclusions

In accordance with Chapter 90.03 RCW, I conclude that:

- The water is physically and legally available for appropriation,
- The water will serve a beneficial use,
- The diversion will not cause impairment of existing rights, and
- The proposed use is not detrimental to the public interest.

RECOMMENDATIONS

Based on the above investigation and conclusions, I recommend that this request for a water right be approved 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:

- 1,500 gpm
- 1193 ac-ft per year
- Municipal Supply

Point of Withdrawal

- SW¼, NW¼, Section 10, Township 19 North, Range 2 E. W.M.

Place of Use

- As described on Page 1 of this Report of Examination.

Tammy Hall — 7/3/2014 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.

References

Pierce County Washington: Washington Division of Geology and Earth Resources Report of Investigations 33, 34 p.

Brown and Caldwell, 1985, Clover/Chambers Creek Geohydrologic Study for Tacoma-Pierce County Health Department: Seattle, WA, Brown and Caldwell, July 1985.

Lakewood Water District, 2013, Lakewood Water District 2012 Abitibi Water Right Transfer Withdrawal Management Plan: as submitted to the Department of Ecology, 26 p.

Robinson and Roberts, 1950, Report to Lakewood Water District on Test Well T-6 at Interlaaken: prepared for Lakewood Water District, 8 p.

Robinson and Roberts, 1959, Report to Lakewood Water District on Construction of Well D-2 at Interlaaken: prepared for Lakewood Water District, 9 p.

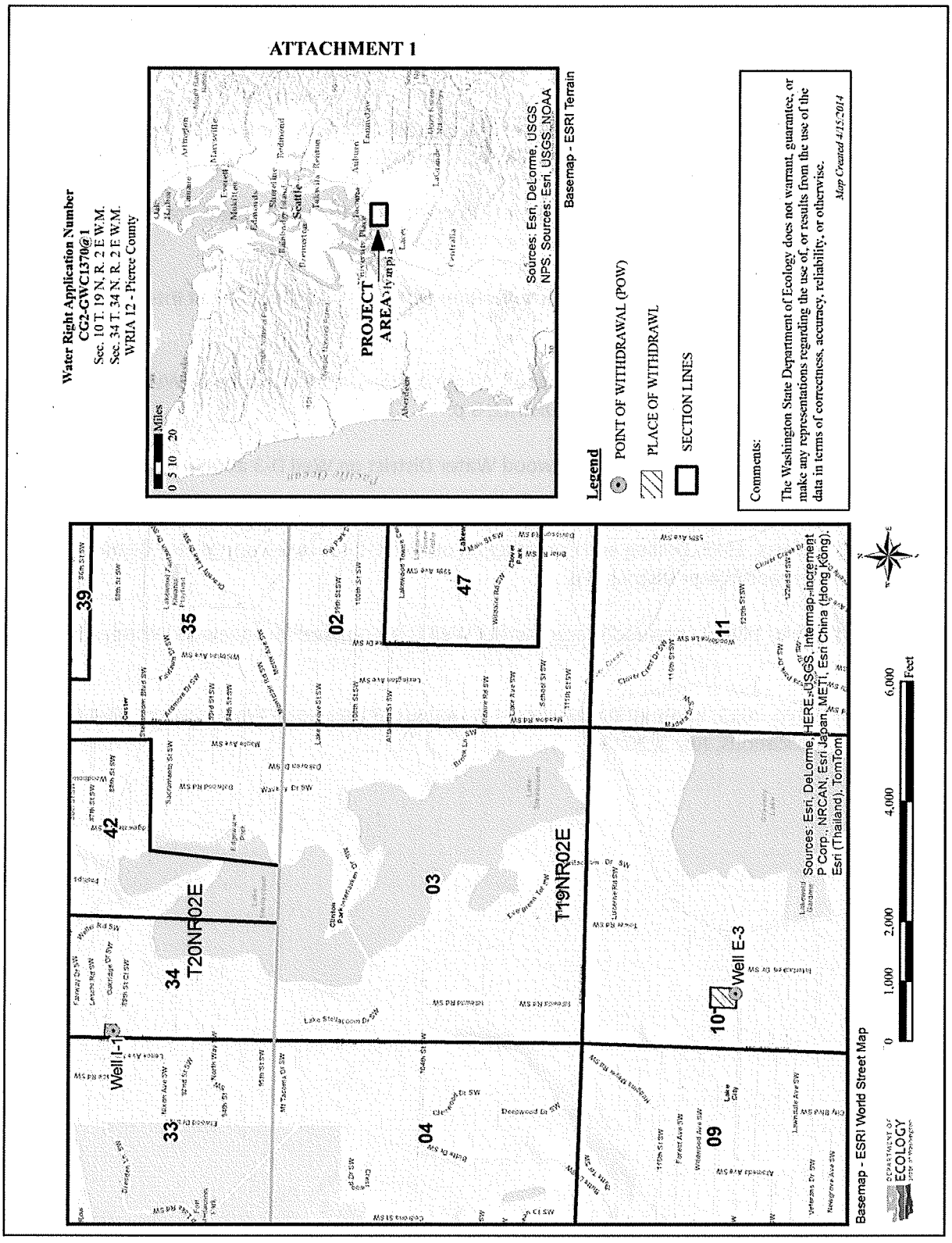
Robinson and Roberts, 1959, Report to Lakewood Water District on Well D-3 at Interlaaken: prepared for Lakewood Water District, 5 p.

Robinson and Roberts, 1963, Drilling and Construction of Well E-2 for Lakewood Water District: prepared for Lakewood Water District, 8 p.

Robinson and Noble, 1970, Lakewood Water District Well E-3: prepared for Lakewood Water District, 12 p.

Robinson and Noble, 2013, Information submitted in support of Lakewood Water District Well E-3 water rights change applications, July 3, 2013.

ATTACHMENT 1



Attachment #2

Existing Water Rights held by LWD

DOH No.	*Source Name*	*Permit or Certificate Number*	*Priority Date*	*Aquifer (see below)*	*Instantaneous Amount (gpm)*	*Annual Amount*			
						Additive		Non-additive	
						(acre-ft)	(gpm)	(acre-ft)	(gpm)
	A-1 Tillicum	C-0146-D	4/1/1943	C	380	410	254	0	0
	A-2 Tillicum	C-3751-A	2/2/1960	C	750	1,200	744	0	0
S01	A-3 Tillicum	C-5573-A	10/29/1965	E	1,500	0	0	2,400	1,488
S02	D-2 Interlaken/Yard	C-0601-A	10/9/1947	E	2,000	706	438	0	0
S03	D-3 (C) Interlaken/Yard	C-0148-D	1925	C	400	520	322	0	0
S03	D-3 Interlaken/Yard	C-0149-D	1925	C	600	732	454	0	0
S04	E-2/E-3 Wash Blvd	C-4485-A	11/5/1962	E	1,200	0	0	1,920	1,190
S06	F-2 104 & Bridgeport	C-5574-A	10/29/1965	E	1,000	0	0	1,600	992
S07	G-1/G-2 Scotts	C-0717-A	6/15/1950	A	3,000	3,000	1,860	0	0
S08	H-1 Ponders	C-1289-A	2/21/1951	A	2,000	32	20	2,468	1,530
S08	H-2 Ponders	C-3831-A	2/2/1960	A	800	1,080	670	200	124
S09	I-2 Hipkins	C-1370-A	12/7/1951	C	1,500	0	0	1,193	740
S09	I-3 Hipkins	C-7320-A	7/28/1970	C	1,200	160	99	0	0
S09	I-4 Hipkins	G2-23869C	6/24/1975	C	1,500	0	0	1,200	744
S11	J-1 88th & Pine	C-1305-A	12/6/1950	A	1,500	2,000	1,240	0	0
S12	J-2 88th & Pine	C-4184-A	11/17/1961	E	1,500	0	0	2,400	1,488
S13	K-1/K-2 Lake Ave.	C-5541-A	7/6/1966	E	2,600	0	0	4,160	2,579
S14	L-1 Hemlock Hill	L-3830-A	2/2/1960	A	900	1,520	942	0	0
S14	L-2 Hemlock Hill	C-4183-A	11/17/1961	A	1,500	0	0	2,400	1,488
S14	L-3 Hemlock Hill	C-7319-A	7/28/1970	A	900	720	446	0	0
S15	N-1/N-2 View Road	C-4447-A	5/9/1962	E	3,000	0	0	4,800	2,976
S26	O-1 Oakbrook	C-5194-A	12/1/1964	C	800	0	0	1,280	794
S25	O-2 Oakbrook	C-5540-A	7/5/1966	C	1,100	0	0	1,760	1,091
S25	O-3 Oakbrook	G2-26246C	10/29/1982	C	1,000	490	304	310	192
S18	P-1/P-2 Steilacoom Blvd	C-6840-A	1/31/1969	E	3,000	0	0	2,400	1,488
S19	Q-1 Deepwood	G2-21391C	8/10/1973	E	2,500	870	539	1,130	701
	Q-3 Deepwood	G2-27280C	2/16/1988	A	350	0	0	280	174
S21	R-1 112th St.	G2-26833C	12/11/1985	E	1,500	812	503	388	241
S22	S-1/S-2 Angle Lane	G2-27158C	7/8/1987	C/E	1,850	0	0	1,480	918
S27	U-1 Country Pl	G2-28431P	3/20/1992	C	880	0	0	710	440
	Abitibi transfer	C-299-A	1/2/1949	E/G	1187.5	1971	1222	0	0
	Abitibi transfer	4585-A	10/16/1958	E/G	2945	4750	2945	0	0
Subtotals for Original District Water Rights (acre-ft and gpm)					42,710	14,252	8,836	34,479	21,376
Subtotals for Original District Water Rights (MGD)					61.50		12.72		30.78
Totals including Abitibi Water Rights (acre-ft and gpm)					46,843	20,973	13,003	34,479	21,376
Totals including Abitibi Water Rights (MGD)					67.45		18.72		30.78