STATE OF WASHINGTON
**DEPARTMENT OF ECOLOGY**

# *REPORT OF EXAMINATION FOR CHANGE TO A PORTION OF A WATER RIGHT CLAIM*

TO APPROPRIATE PUBLIC WATERS OF THE STATE OF WASHINGTON

☒ Surface Water (Issued in accordance with the provisions of Chapter 117, Laws of Washington for 1917, and amendments thereto, and the rules and regulations of the Department of Ecology.)

☐ Ground Water (Issued in accordance with the provisions of Chapter 263, Laws of Washington for 1945, and amendments thereto, and the rules and regulations of the Department of Ecology.)

| PRIORITY DATE | APPLICATION NUMBER | PERMIT NUMBER | CLAIM NUMBER |
|---|---|---|---|
| 1888 | | | 158498 |

**THIS CHANGE AUTHORIZATION SPLITS OFF A PORTION OF THE SUBJECT WATER RIGHT CLAIM. THE PORTION OF THE WATER RIGHT CLAIM SPLIT OFF BECAUSE OF THIS CHANGE WILL BE TRACKED AS CG1-158498CL@98 AND WILL BE REFERRED TO AS RECORD CV**

## RECORD CV

NAME
Benjamin Cropp

| ADDRESS (STREET) | (CITY) | (STATE) | (ZIP CODE) |
|---|---|---|---|
| 4803 Forest Avenue SE | Mercer Island | Washington | 98040 |

## PUBLIC WATERS TO BE APPROPRIATED

SOURCE
Lake Washington

TRIBUTARY OF (IF SURFACE WATERS)

| MAXIMUM CUBIC FEET PER SECOND (CFS) | MAXIMUM GALLONS PER MINUTE (GPM) | MAXIMUM ACRE FEET PER YEAR (AFY) |
|---|---|---|
| 0.042 | 19 | 0.7 |

QUANTITY, TYPE OF USE, PERIOD OF USE

Irrigation of 0.31 acres – during irrigation season (April 15 through October 31)

Diverting from the lake under this water right record can only occur between 9:00 PM and 10:59 PM on EVEN numbered days, during the irrigation season. The total gallons of water per year allowed to be used under this change are 228,095 gallons.

## LOCATION OF DIVERSION/WITHDRAWAL

APPROXIMATE LOCATION OF DIVERSION--WITHDRAWAL
Approximately 32 feet south and 1036 feet west from the NE corner of Section 24, T24N, R4E, W.M.

| LOCATED WITHIN (SMALLEST LEGAL SUBDIVISION) | SECTION | TOWNSHIP N. | RANGE, (E. OR W.) W.M. | W.R.I.A. | COUNTY |
|---|---|---|---|---|---|
| NE 1/4 NE 1/4 | 24 | 24N | 4E | 8 | King |

## RECORDED PLATTED PROPERTY

| LOT | BLOCK | OF (GIVE NAME OF PLAT OR ADDITION) |
|---|---|---|
| | | |

## LEGAL DESCRIPTION OF PROPERTY ON WHICH WATER IS TO BE USED

King County Tax Parcel Number 2577300021 (0.36 acres) located in the SE 1/4 SE 1/4, Section 13 and the NE 1/4 NE 1/4, Section 24, T24N, R4E, W.M. The following map shows the approximate location of Parcel Number 2577300021. Attachment 1 also shows the point of diversion and place of use.

**Figure 1.** Parcel map showing the point of diversion and place of use.

| Table 1. Summary of Water Right Documents Currently Relating to Water Right Claim 158498 | | | | |
|---|---|---|---|---|
| | | | | |
| **WATER RIGHT TRACKING NUMBER** | **OWNER** | **QI (GPM)** | **QA (AFY)** | **DOCUMENT TYPE*** (Report of Examination or Certificate of Change) |
| Original 158498 before any changes | KCWD NO. 1 | 293.6 (tentative determination) | 473.6 (tentative determination) | |
| | | | | |
| 158498B | ROBERT AND KATHLEEN TRIMBLE | 19 | 0.7 | ROE |
| 158498C | CARL STORK | 36 | 1.3 | ROE |
| 158498D | CITY OF KIRKLAND | 142 | 41.8 | CERTIFICATE OF CHANGE |
| 158498E | THOMAS J. MILLER | 14 | 0.7 | ROE |
| 158498F | DAN NORDSTROM | 18 | 1.3 | ROE |
| 158498G | SGT, LLC | 20 | 1.0 | ROE |
| 158498H | GARY W. SERGEANT | 20 | 1.4 | ROE |
| 158498I | CKK | 19 | 0.7 | ROE |
| 158498J | FLEMING | 24 | 1.0 | ROE |
| 158498K | TRIMBLE | 13 | 0.4 | ROE |
| 158498L | THOMPSON | 70 | 4.0 | ROE |
| 158498M | BRUCE JONES | 20 | 0.73 | ROE |
| 158498N | GARY JONES | 18 | 1.0 | ROE |
| 158498O | BETH POST | 18 | 1.0 | ROE |
| 158498P | WILMA HAGEN | 15 | 0.6 | ROE |
| 158498Q | RPW PARTNERSHIP | 15 | 0.6 | ROE |
| 158498R | ROSS REVOCABLE TRUST | 15 | 0.6 | ROE |
| 158498S | DORIS J. HART | 15 | 0.27 | ROE |
| 158498T | ROBERT F. ABRAMSON, JR. | 14 | 0.5 | ROE |
| 158498U | JAN & PRICILLA BREKKE RESIDENCE TRUST | 19 | 2.8 | ROE |
| 158498V | ROBERT D. BISHOP | 16 | 1.3 | ROE |
| 158498W | CASCADE TRUST, ELLEN CONEDERA DIAL, TRUSTEE | 32.6 | 6.0 | ROE |
| 158498X | WILLIAM HUNT | 10 | 0.4 | ROE |
| 158498Y | WILLIAM & GERI FRANTZ | 18 | 1.0 | ROE |
| 158498Z | WILLIAM & GERI FRANTZ | 19 | 1.4 | ROE |
| 158498AA | ELIZABETH FREEMAN | 14 | 0.5 | ROE |
| 158498AB | CHARLES WALLACE | 15 | 0.3 | ROE |
| 158498AC | SEATTLE YACHT CLUB | 20 | 1.8 | ROE |
| 158498AD | WILLIAM BOETTCHER | 18 | 1.0 | ROE |
| 158498AE | MAX A. GURVICH | 18 | 0.3 | ROE |
| 158498AF | SCHIRO REVOCABLE TRUST | 27 | 1.5 | ROE |
| 158498AG | SCHIRO REVOCABLE TRUST | 22 | 2.0 | ROE |
| 158498AH | CITY OF MERCER ISLAND (PARKS DEPT.) | 40 | 4.5 | ROE |
| 158498AI | RALPH AND KATHARINE BRINDLEY | 17 | 0.6 | ROE |
| 158498AJ | OKI DEVELOPMENT | 16 | 0.9 | ROE |
| 158498AK | OKI DEVELOPMENT | 27 | 3.0 | ROE |
| 158498AL | RODNEY, JANICE OLSON | 22 | 1.2 | ROE |
| 158498AM | P.A. HASHISAKI | 14 | 0.5 | ROE |
| 158498AN | STEVEN SIMON | 13.6 | 0.5 | ROE |
| 158498AO | DOUGLAS GAMBLE | 25 | 1.0 | ROE |
| 158498AP | JAMES AND ELIZABETH REID | 18 | 0.7 | ROE |
| 158498AQ | PETER AND JULIEANN BRAMAN | 18 | 0.3 | ROE |
| 158498AR | JOHN TORODE | 14 | 1.0 | ROE |
| 158498AS | RICK, JACQUE DOANE | 18 | 1.0 | ROE |
| 158498AT | JASON SANDMAIER | 22 | 1.2 | ROE |
| 158498AU | CITY OF BELLEVUE | 90 | 10.1 | ROE |
| 158498AV | DONALD W LEVTHOLD | 22 | 1.2 | ROE |
| 158498AW | EDWARD TORKELSON AND KATHY KEARNEY | 15 | 0.3 | ROE |
| 158498AX | KIRK & JILL CALLISON | 12 | 0.4 | ROE |
| 158498AY | MARY ELLEN & LAWRENCE HUGHES | 18 | 2 | ROE |
| 158498AZ | ROBERT ANDREWS/DAWN BOVA | 33 | 1.2 | ROE |
| 158498BA | DONALD ANDERSON | 18 | 1.3 | ROE |
| 158498BB | SVEN & MELINDA BITNERS | 10 | 0.2 | ROE |
| 158498BC | GATIS & JOANNA ROZE | 20 | 0.7 | ROE |
| 158498BD | GARY SCHULZE | 22 | 1.6 | ROE |
| 158498BE | JOSEPH & LAURIE BLATTNER | 18 | 0.7 | ROE |
| 158498BF | ANNE MARIE PICKLES | 22 | 1.2 | ROE |
| 158498BG | DONALD & DEANNE ETSEKSON | 18 | 0.3 | ROE |
| 158498BH | MAREN GILLILAND | 12 | 0.66 | ROE |
| 158498BI | EDWARD G PAVLIN | 18 | 0.7 | ROE |
| 158498BJ | STEPHEN & CHRISTINA POORE | 15 | 0.8 | ROE |
| 158498BK | TOWN OF YARROW POINT | 49 | 11.4 | ROE |
| 158498BL | HUBERT & ALISON KOLDE | 15 | 0.3 | ROE |

| | | | | |
|---|---|---|---|---|
| 158498BM | ROBERT & MARGARET PHILBRICK | 17 | 0.9 | ROE |
| 158498BN | SAMUEL LeCLERCQ | 20 | 0.4 | ROE |
| 158498BO | DONALD L. NOTHSTEIN | 15 | 0.6 | ROE |
| 158498BP | NICHOLAS & CAROL WESTLUND | 14 | 0.8 | ROE |
| 158498BQ | O'NEIL FAMILY REVOCABLE TRUST | 18 | 0.7 | ROE |
| 158498BR | EDWARD G PAVLIN | 18 | 0.7 | ROE |
| 158498BS | WILLIAM P & MARGARET M DORSEY | 18 | 0.3 | ROE |
| 158498BT | GEORGE W AKERS | 18 | 0.3 | ROE |
| 158498BU | ALAN & LESLIE ROSEN | 10 | 0.2 | ROE |
| 158498BV | ALFRED W. FINCH | 20 | 1.1 | ROE |
| 158498BW | GLENHOME WATER ASSOCIATION | 41 | 1.51 | ROE |
| 158498BX | DAVID SANDWITH | 20 | 2.9 | ROE |
| 158498BY | JOHN T. AND LYNN B. HUTTENLOCHER | 12 | 0.4 | ROE |
| 158498BZ | DAN M. MADIGAN JR. | 14 | 0.5 | ROE |
| 158498CA | GORDON A. & PATRICIA COHEN | 18 | 0.3 | ROE |
| 158498CB | MILTON T. ENGLISH | 40 | 3.0 | ROE |
| 158498CC | WILLOUGHBY LLC | 15.9 | 1.2 | ROE |
| 158498CD | THOMAS G. & SARMITE DAVIDSON | 22 | 0.9 | ROE |
| 158498CE | HAL & JOAN GRIFFITH | 20 | 1.5 | ROE |
| 158498CF | CARMEN A. SEPIC | 14 | 0.8 | ROE |
| 158498CG | MICHAEL & SUSAN CERO | 18 | 0.7 | ROE |
| 158498CH | TODD W. & POLLY E. GARDNER | 18 | 1.0 | ROE |
| 158498CI | YARROW BAY YACHT BASIN & MARINA, LLC / MARINA SUITES, LLC | 18 | 1.0 | ROE |
| 158498CJ | DIANE MARIE WILCOX | 17 | 0.9 | ROE |
| 158498CK | HOWARD & LYNN BEHAR | 20 | 0.4 | ROE |
| 158498CL | SANFORD & CYNTHIA LEVY | 20 | 0.4 | ROE |
| 158498CM | RICHARD & LESLIE WEST | 21 | 0.8 | ROE |
| 158498CN | ROBERT & DORIS LAWLER | 21 | 0.8 | ROE |
| 158498CO | STEPHEN & ELIZABETH ROSENMAN | 17 | 0.6 | ROE |
| 158498CP | BRUCE F. TALL | 17 | 0.6 | ROE |
| 158498CQ | PHILIP & CLAUDIA ROBBS | 22 | 1.2 | ROE |
| 158498CR | JOHN B. & LINDA MASON | 14 | 0.5 | ROE |
| 158498CS | JOHN B. & LINDA MASON | 14 | 0.5 | ROE |
| 158498CT | GIVAN RESIDENCE TRUST | 16 | 0.6 | ROE |
| 158498CU | GERALD & PENELOPE PEABODY | 17 | 0.6 | ROE |
| 158498CV | BENJAMIN CROPP | 19 | 0.7 | ROE |

* The instantaneous and annual rates given for Report of Examination documents are the maximum authorized; the values given for certificates of change are the values that have actually been reperfected after the change.

**Table 2. Managing the Instantaneous Diversion Rate from Lake Washington Under Water Right Claim 158498**

Water Right Record with individual diversion rates in gpm in ()and combined rate in gpm

**ODD DAYS**

| Time | January 1 – April 14 | April 15 – October 31 | November 1 – December 31 | Comments |
|---|---|---|---|---|
| 12:00–12:59 am | 0 | D(142), AU(90), AZ(33), CR(14), CS(14) 293 | 0 | Only 0.6 GPM still available |
| 1:00 – 1:59 am | 0 | D(142), AU(90), AZ(33), CR(14), CS(14) 293 | 0 | Only 0.6 GPM still available |
| 2:00 – 2:59 am | 0 | B(19), C(36), D(142), E(14), AU(82.6), 293.6 | 0 | Fully Allocated |
| 3:00 – 3:59 am | 0 | B(19), C(36), D(142), E(14), W(32.6), CC(15.9) 259.5 | 0 | |
| 4:00 – 4:59 am | 0 | D(142), E(14), W(32.6), AR(14), AY(18), BC(20), CC(15.9) 256.5 | 0 | |
| 5:00 – 5:59 am | 0 | D(142), E(14), W(32.6), AG(22), AN(13.6), AR(14), AY(18), BC(20), BJ(15) 291.2 | 0 | Only 2.4 GPM still available |
| 6:00 – 6:59 am | 0 | D(142), W(32.6), AD (18), AG(22), AJ(16), AN(13.6), AR(14), AY(18), BJ(15) 291.2 | 0 | Only 2.4 GPM still available |
| 7:00 – 7:59 am | 0 | N(18),AD (18), AG(22), AJ(16), AR(14), AT(22), AY(18), BG(18), BJ(15), BL(15), BO(15), BS(18), BT(18), BU(10) 237 | 0 | |
| 8:00 – 8:59 am | 0 | G(20), K(13), N(18), AD (18), AG(22), AJ(16), AK(27), AM(14), AO(25), AP(18), AS (18), AT(22), AX(12), AY(18) 261 | 0 | |
| 9:00 – 9:59 am | 0 | G(20), K(13), N(18), Q(15),X(10), AG(22), AK(27), AL(22), AM(14), AO(25), AP(18), AQ(18), AS (18), AT(22), AX(12), AY(18) 292 | 0 | Only 1.6 GPM still available |
| 10:00–10:59 am | 0 | G(20), O(18), Q(15), X(10), AF(27), AK(27), AL(22), AO(25), AS (18), CD(22) 204 | 0 | |
| 11:00–11:59 am | 0 | O(18), AF(27), AK(27), AL(22), BI(18), BR(18), BV(15), CD(22) 167 | 0 | |

| | | | | |
|---|---|---|---|---|
| 12:00–12:59 pm | 0 | O(18), AF(27), AK(27), BI(18), BR(18), BV(15), CD(22) 145 | 0 | |
| 1:00 – 1:59 pm | 0 | AK(27) 27 | 0 | |
| 2:00 – 2:59 pm | 0 | BY(12) 12 | 0 | |
| 3:00 – 3:59 pm | 0 | BY(12) 12 | 0 | |
| 4:00 – 4:59 pm | 0 | BZ(14), 14 | 0 | |
| 5:00 – 5:59 pm | 0 | BK(49), BZ(14) 63 | 0 | |
| 6:00 – 6:59 pm | 0 | R(15), W(32.6), BK(49), CU(17) 113.6 | 0 | |
| 7:00 – 7:59 pm | 0 | R(15), W(32.6), BK(49), CU(17) 113.6 | 0 | |
| 8:00 – 8:59 pm | 0 | W(32.6), BK(49), 81.6 | 0 | |
| 9:00 – 9:59 pm | 0 | W(32.6), BK(49), BW(41) 122.6 | 0 | |
| 10:00–10:59 pm | 0 | W(32.6), BK(49), BW(41) 122.6 | 0 | |
| 11:00–11:59 pm | 0 | D(142), W(32.6), AU(90), BN(20) 284.6 | 0 | Only 9 GPM still available |

| EVEN DAYS | | | | |
|---|---|---|---|---|
| Time | January 1 – April 14 | April 15 – October 31 | November 1 – December 31 | Comments |
| 12:00 – 12:59 am | 0 | D(142), AH(40), AU(90), BX(20) 292 | 0 | Only 1.6 GPM still available |
| 1:00 – 1:59 am | 0 | D(142), AH(40), AU(90), BX(20) 292 | 0 | Only 1.6 GPM still available |
| 2:00 – 2:59 am | 0 | D(142), AH(40), AU(90), BX(20) 292 | 0 | Only 1.6 GPM still available |
| 3:00 – 3:59 am | 0 | D(142), AC(20), AH(40), BX(20), CC(15.9), CK(20), CL(20) 277.9 | 0 | |
| 4:00 – 4:59 am | 0 | D(142), F(18), Y(18), Z(19), AC(20), AH(40), BX(20), CC(15.9) 292.9 | 0 | Only 0.7 GPM still available |
| 5:00 – 5:59 am | 0 | D(142), F(18), Y(18), Z (19), AC(20), AH(40), AW(15), BB(10), 282 | 0 | |
| 6:00 – 6:59 am | 0 | D(142), F(18), P(15), T(14), Y(18), Z(19), AC(20), AI(17), 263 | 0 | |
| 7:00 – 7:59 am | 0 | F(18), L(70), P(15), T(14), V (16,) Y(18), Z(19), AB(15), AC(20), AI(17), BD(22), BF(22), BO(15) 281 | 0 | |
| 8:00 – 8:59 am | 0 | H(20), I(19) J(24), L(70), M(20), V(16), BA(18), BD(22), BF(22), CA(18), CQ(22) 271 | 0 | |
| 9:00 – 9:59 am | 0 | H(20), I(19) J(24), L(70), M(20), V(16), AV(22), BA(18), BD(22), BE(18), BF(22), CQ(22) 293 | 0 | Only 0.6 GPM still available |
| 10:00–10:59 am | 0 | H(20), U(19), V(16), AE(18), AV(22), BA(18), BD(22), BE(18), BX(20), CQ(22) 195 | 0 | |
| 11:00–11:59 am | 0 | H(20), U(19), AV(22), BA(18), BX(20), CE(20), CT(16) 135 | 0 | |
| 12:00–12:59 pm | 0 | U(19), BM(17), BP(14), BQ(18), BX(20), CE (20), CT(16) 124 | 0 | |
| 1:00 – 1:59 pm | 0 | U(19), BM(17), BP(14), BQ(18), CE(20) 88 | 0 | |
| 2:00 – 2:59 pm | 0 | U(19), BM(17), BP(14), CE(20), CH(18) CJ( 17). CP(17) 122 | 0 | |
| 3:00 – 3:59 pm | 0 | U(19), CH(18), CI(18), CJ(17), CN(21), CO(17), CP(17) 127 | 0 | |
| 4:00 – 4:59 pm | 0 | U(19), AA(14), CH(18), CI(18), CJ(17), CN(21), CO(17) 124 | 0 | |
| 5:00 – 5:59 pm | 0 | U(19), AA(14), BK (49), CI(18) 100 | 0 | |
| 6:00 – 6:59 pm | 0 | S(15), BK(49), CG(18), CM(21) 103 | 0 | |
| 7:00 – 7:59 pm | 0 | BH(12), BK(49), CG(18), CM(21) 100 | 0 | |
| 8:00 – 8:59 pm | 0 | BH(12), BK(49), CB(40) 101 | 0 | |
| **9:00 – 9:59 pm** | 0 | BH(12), BK(49), CB(40), CF(14), **CV(19) 134** | 0 | |
| **10:00–10:59 pm** | 0 | BK(49), CB(40), CF(14), **CV(19) 122** | 0 | |
| 11:00 – 11:59 pm | 0 | D(142), AU(90), CB(40), CF(14) 286 | 0 | Only 7.6 GPM still available |
| *****No time period may exceed 293.6 gpm***** | | | | |

**DESCRIPTION OF PROPOSED WORKS**

The water supply system will consist of a screened intake pipe, located off a dock in Lake Washington, a pump, a meter, an irrigation control system and irrigation piping. The system will comply with the requirements of this report of examination and the requirements of the Department of Fish and Wildlife.

| DEVELOPMENT SCHEDULE | | |
|---|---|---|
| BEGIN PROJECT BY THIS DATE: | COMPLETE PROJECT BY THIS DATE: | WATER PUT TO FULL USE BY THIS DATE: |
| September 15, 2009 | September 15, 2010 | September 15, 2013 |

**REPORT**

## BACKGROUND INFORMATION

On May 16, 1974, the Department of Ecology received a water right claim form from the King County Water District No. 1 signed by John R. Adams on May 12, 1974. This water right claim was assigned number 158498 by Ecology. The details of the information attested to on the water right claim form are contained in the section below.

On February 13, 2008, the Department of Ecology accepted a change application from Benjamin Cropp on water right claim 158498. Ecology assigned this change application the tracking number CG1-158498CL@98.

### Attributes of the Original Claim

| | |
|---|---|
| Name on Claim: | King County Water District No. 1 |
| Priority Date: | 1888 |
| Quantity Claimed | |
| Instantaneous Quantity: | 900 gallons per minute (gpm) |
| Annual Quantity: | 1440 acre-feet per year (afy) |
| Quantity Presently Used | |
| Instantaneous Quantity: | 250 gallons per minute (gpm) |
| Annual Quantity: | 400 acre-feet per year (afy) |
| Point of Withdrawal: | NW¼, Section 17, Township 25 North, Range 5 East, W.M. |
| Purpose of Use: | Municipal Supply |
| Period of Use: | Continuously |
| Place of Use: | Replat of Yarrow Section 18, Township 25 North, Range 5 E. W. M. |

### Proposed Change Made to a Portion of the Water Right Claim

| | |
|---|---|
| Name of Applicant: | Benjamin Cropp |
| Date of Application for Change: | February 13, 2008. |
| Point of Diversion: | NE¼ NE¼, Section 24, Township 24 North, Range 4 East, W.M. |
| Purpose of Use: | Irrigation |
| Period of Use: | During the Irrigation Season (April 15 through October 31) |
| Place of Use: | King County Tax Parcel No. 2577300021 in the SE¼ SE¼, Section 13, and the NE¼ NE¼, Section 24, Township 24 North, Range 4 East, W.M. |
| Notice of Publication: | Mercer Island Reporter on March 19, 2008 and March 26, 2008 |
| Protests: | None received during the statutory 30-day protest period. |

### Purpose of the Change Application

King County Water District No. 1 (WADOH Water System Id. 38650) has entered into an interlocal agreement with the City of Bellevue under which the City has assumed the District's water system and service area and the District will eventually dissolve. The District must sell it assets, including water rights, to pay the costs of upgrading the water system and interconnecting with the City of Bellevue's water system. The property that contained the original points of withdrawal for this water right claim was sold to the City of Kirkland, minus the water right. The District has adopted a resolution offering to sell shares of its water rights to its existing residents and, to the extent of availability, to other lakefront property owners for irrigation of lawns and gardens.

## INVESTIGATION

In considering this application, my investigation included, but was not limited to research and/or review of:

- The State Water Code
- The State Environmental Policy Act (SEPA)
- Washington State Department of Fish and Wildlife Comments
- Existing water rights on file for King County Water District No. 1 and the applicants property
- Notes from site visits on January 13, 2006, February 23, 2006, and August 15, 2008.
- Correspondence from Thomas M. Pors (attorney for King County Water District No. 1), and Robert Trimble (current president of the board for King County Water District No. 1).
- Topographic maps, local area maps, and aerial photos
- Report of Hydrogeologic Services, Hydrogeologic Assessment, King County Water District No. 1 Well Field, Kirkland, Washington (GeoEngineers, November 7, 1995)
- Report, Wellhead Protection Study, Kirkland Well Field (GeoEngineers, March 3, 2000)
- Hydrologic Report for Change Applications Relating to the Transfer of Water Originally Withdrawn Under Ground Water Claim 158498 and Being Changed to Points of Diversion out of Lake Washington for Irrigation (Andrew B. Dunn, January 23, 2006)
- State of Washington Irrigation Guide, 1985, amended 1990 and 1992.
- Guidance 1210, Department of Ecology - Water Resources Program, Effective Date 10/11/2005.
- *A Point in Time, A History of Yarrow Point, Washington* (by the citizens of Yarrow Point, 2002)
- *Yarrow a Place, An Historical Commentary of Lives and Times During the Early Development of Yarrow Point* (Jeanne L. Whiting, 1976)

### State Water Code

Chapters 90.03, 90.14, and 90.44 RCW authorize the appropriation of public water for beneficial use and describe the process for obtaining water rights including the process to amend or change existing rights. Laws specifically governing the water right

permitting process are RCW 90.03.250 through 90.03.340 and RCW 90.44.060. Changes or amendments to these rights are covered primarily under RCW 90.03.380 and RCW 90.44.100.

**State Environmental Policy Act (SEPA)**

This water right change application is categorically exempt under SEPA WAC 197-11-305 and WAC 197-11-800(4).

**Washington Department of Fish and Wildlife Comments**

On August 8, 2005, the Department of Ecology received a letter from the WDFW stating that, "Lake Washington is inhabited by sockeye, Chinook, coho, steelhead, cutthroat, and numerous native and non-native fish species." It also requested that this water right should be subject to established lake levels, if any. The new water right holder would need to obtain a Hydraulic Project Approval (HPA) from the Washington State Department of Fish and Wildlife for work performed in or near the water and during that process they would require them to screen their intake structure. This letter received from WDFW was designed to apply to all change applications of this nature for water right claim 158498.

**Existing Rights for the Applicant**

No water right documents were identified on the Cropp property prior to this water change.

**Other Water Rights in the Vicinity**

The identification of nearby water rights is undertaken so that the hydrogeologist/report writer is aware of those nearby water rights when determining if the new point of diversion will impair any of those rights. Due to the size of Lake Washington, and the pumping rate of the proposed diversion, it was deemed unnecessary to identify other water rights in the vicinity since this pumping rate will not cause a measurable change in the water level of Lake Washington and can therefore automatically be determined that it will not cause impairment.

**Site Visit**

On August 15, 2008, I met with Benjamin Cropp. There is no irrigation system on the property. The proposed diversion will be located off a dock on the applicant's property and was noted with GPS. I discussed the Department of Fish and Wildlife requirements for water intakes from Lake Washington with Mr. Cropp and he should contact DFW to make sure the system is constructed in accordance with these requirements.

**Topographic and Local Area Maps**

The Kirkland USGS 1:24,000 scale topographic map and the King County Assessor's maps and aerial photos, accessed through their iMap website (http://www.metrokc.gov/gis/mapportal/iMAP_main.htm#) were used during this investigation.

**Tentative Determination as to Extent and Validity of Water Right Claim 158498**

A Tentative Determination Analysis for the original water right claim, prior to any portion of the water right claim being sold off, is attached to this report (see Attachment 2). It concluded that 293.6 gpm and 473.6 acre-feet per year were perfected for year round municipal use and no portion of that was lost due to statutory relinquishment or common law abandonment.

**Annual Quantity Determination**

Benjamin Cropp plans on irrigating turf (0.21 acres) and landscape plants (0.1 acres) on a total of 0.31 acres. The State of Washington Irrigation Guide (1992 update) calculates the crop irrigation requirement, with a 2-year return interval (every other year the crop will experience a shortage of water), for pasture/turf at the Seattle-Tacoma station as being 20.02 inches per year. In this guide, the irrigation of pasture/turf runs from April through September.

$$TIR = \frac{CIR}{E} * 100$$

TIR – Total Irrigation Requirement
CIR – Crop Irrigation Requirement
E – Irrigation System Efficiency in percent

For Pop-up impact sprinklers, estimates for efficiency are 60-85% with 75% being the average (Ecology Water Resources Program Guidance 1210). An efficiency of 75% was assumed for this calculation.

$$TIR = \frac{20.02 \text{ inches}}{75} * 100$$

TIR = 26.69 inches

On the website for the Irrigation Water Management Society (http://www.iwms.org/seattle_area.asp), it estimates that the amount of water needed for landscape plant irrigation is approximately 70% of that required for turf. Taking 70% of 26.69 inches equates to a total irrigation requirement of 18.68 inches for the landscape plant acreage.

Turf: Using a TIR of 26.69 inches, the volume pumped to irrigate 0.21 acres of turf is calculated as 0.47 afy.

Landscape Plants: The volume of water needed to irrigate 0.1 acres with a TIR of 18.68 inches is calculated as 0.16 afy.

Total Irrigation: The calculated irrigation requirement for the entire 0.31 acres of irrigation is 0.63 afy. The applicant purchased 0.7 afy from King County Water District #1 for irrigation. The requested 0.7 afy for irrigation of turf and landscape plants is based solely on the instantaneous pumping rate and duration of pumping utilized by the system.

Final Acre-Feet Per Year: The applicant proposes to irrigate from April 15 to October 31 on EVEN number days during the irrigation season. The annual quantity cannot be greater than 0.7 acre feet. The acre feet assigned to the final Certificate of Change to G1-158498CL@98 will be the actual number of afy that have been perfected by the applicant (this final annual quantity may be less than what was requested). This final annual quantity will be based upon meter readings and will take into account any limitations on the pumping rate, and days and hours of pumping. All unperfected quantities will be returned to the state.

**Irrigation Season Determination**

The applicant requested an irrigation season of April 15th through October 31st. This time period brackets the dates when a water right for irrigation purposes can be exercised. In looking at the Seattle-Tacoma and Seattle U of W stations in the State of Washington Irrigation Guide (1985 and 1992), the period of time during which irrigation is required to satisfy the CIR for a variety of crops starts in April and runs into October. Given the weather conditions in the Seattle area, it is not likely that an irrigator will have to irrigate over this entire duration in a typical year. However, the proposed irrigation season of April 15th through October 31st seems reasonable to set the outer bounds on the irrigation season and account for possible needs during drought years.

A graph of historic water use (http://www.seattle.gov/util/About_SPU/Water_System/Water_Supply/COS_004041.asp) by Seattle Public Utilities was analyzed to determine when water use occurs for irrigation, which should be represented as an increase in use compared with background winter-time in-house domestic use. This analysis suggests that the proposed irrigation season will capture the observed high water use period.

Given the management scheme that has been set up for the number of anticipated water right changes to water right claim 158498, all irrigation rights derived from this claim must have the same season of use. Therefore, it makes sense to set an irrigation season that will capture all extremes of weather, plants, and irrigation needs.

**Discussion of Annual Volume Available for Change from Year Round Use to Seasonal Use**

This change application proposes to change the purpose of use from municipal supply to irrigation. The irrigation season, as defined by the change application is April 15th through October 31st. This is a period of 200 days, which equates to approximately 55% of the year. So, applying that percentage to the 473.6 acre-feet per year, we arrive at 259.5 acre-feet per year that could be utilized during the period of April 15th through October 31st. The remainder (214.1 acre-feet per year) was historically utilized during the non-irrigation season months and would not be available for use during the irrigation season.

**Hydrology and Hydrogeology (Summarized from Dunn, 2006)**

Greater Lake Washington, including the Lake Washington Ship Canal, Salmon Bay, and Lake Union, is approximately 22,250 acres in size and is separated from the marine waters of Puget Sound by the Hiram M. Chittenden Locks operated by the U.S. Army Corps of Engineers.

The points of withdrawal utilized by the District were located at the western edge of the Vashon Advance Outwash aquifer. Ground water flowing in this aquifer that is not captured by the wells discharges as springs to form the headwaters of Carillon Creek. Carillon Creek proceeds to flow down hill through Carillon Point and finally into Lake Washington.

All of the historic points of withdrawal and this proposed point of diversion are located in WRIA 8.

## FINDINGS

In accordance with state law, the following considerations must be addressed during the process of evaluating this change request:

- Will the change create an enlargement of the original right?
- Does the new point of diversion tap the same source as the original right?
- Will the change cause impairment to other existing rights?
- Will the public interest be impaired?
- Is the new purpose of use considered a beneficial use of water?
- Is the season of use changing?
- What are the protestors concerns?

**Potential for Enlargement**

This water right claim will not be enlarged because of this change application as long as the rate and volume of water withdrawn/diverted after the change application is not greater than what was historically perfected by King County Water District No. 1. That means that under this claim, including portions that are broken off of the original claim through change applications, the rate of water being pumped from Lake Washington can not exceed 293.6 gpm at any point in time and the amount of water pumped during the irrigation season of April 15 through October 31 can not exceed 259.5 acre-feet per year.

**Same Source of Water**

Diverting water from Lake Washington, including the Lake Washington Ship Canal, Salmon Bay, and Lake Union, should be considered to be the same source as withdrawing water from the wells used by the KCWD No. 1 for the following reasons:

1. Both the wells and Lake Washington are located in WRIA 8.
2. Ground water not captured by the wells, under this water right claim, will naturally discharge from the aquifer, flow down a short surface water drainage named Carillon Creek, and ultimately discharge into Lake Washington.

**Impairment of Other Rights**

Since the water that was originally captured by the wells and piped to Yarrow Point for domestic use will now naturally discharge from the aquifer and flow into Lake Washington. Lake Washington will not experience any decrease in the amount of water entering it, being stored in it, or draining from it. Therefore, this water right change will not cause impairment of any existing rights.

**Public Interest**

No detriment to the public interest could be identified during the investigation of this application for change.

**Beneficial Use**

According to RCW 43.27A.020, RCW 90.14.031, and RCW 90.54.020, irrigation is considered a beneficial use of water.

**Season or Period of Use**

Since the purpose of use is being changed from a year round use (municipal) to a seasonal use (irrigation) the season of use is automatically changed to reflect this.

**Protests**

No protests were received during the statutory 30-day protest period.

## RECOMMENDATIONS

I recommend the request for change to a portion of Ground Water Claim 158498 be approved, subject to the provisions listed below:

The amount of water granted is a maximum limit that shall not be exceeded and the water user shall be entitled only to that amount of water within the specified limit that is beneficially used and required.

*Metering Provision:*

An approved measuring device shall be installed and maintained for the diversion of the source identified by this water right in accordance with the rule "Requirements for Measuring and Reporting Water Use", Chapter 173-173 WAC.

Water use data shall be recorded twice a month. Data shall be maintained by the property owner and promptly submitted to Ecology upon request. Recording and retention of data by the water right holder are required to inform the water users about how much water is used, to prove reperfection of the water right after the change, when the water is used, and to assist users in efficient water management.

Chapter 173-173 WAC describes the requirements for data accuracy, device installation and operation, and information reporting. It also allows a water user to petition Ecology for modifications to some of the requirements. Installation, operation, and maintenance requirements are enclosed as a document entitled "Water Measurement Device Installation and Operation Requirements”.

Department of Ecology personnel, upon presentation of proper credentials, shall have access at reasonable times, to the records of water use that are kept to meet the above conditions, and to inspect at reasonable times any measuring device used to meet the above conditions.

*Washington Department of Fish and Wildlife provision:*

The intake shall be screened at all times in accordance with Department of Fish and Wildlife screening criteria. This water right is issued subject to Washington Department of Fish and Wildlife Hydraulic Project Approval.

*Shoreline Management Act:*

Nothing in this authorization shall be construed as excusing the permittee from compliance with any applicable federal, state, or local statutes, ordinances, or regulations including those administered by local agencies under the Shoreline Management Act of 1971.

*Irrigation scheduling:*

This water right can only divert water from Lake Washington between 9:00 PM and 10:59 PM on EVEN numbered days, during the irrigation season. To prevent an enlargement of the water right, the water right holder shall install an automatic irrigation timer capable of restricting the time of pumping from Lake Washington to the period described above.

Department of Ecology personnel, upon presentation of proper credentials, shall have access at reasonable times, to the automatic irrigation timer to verify that water is only being diverted during the time period indicated above.

If it can be shown that the requested change has a detrimental effect on existing rights, it shall be the responsibility of the water right holder to mitigate for this impact and/or alter or cease withdrawal of water.

The applicant is advised that a certificate of change will issue for only that quantity of water that has been diverted and applied to actual beneficial use. Such quantity applied to actual beneficial use shall not exceed the quantity specified in this report of examination and will be calculated based on the best information available to Ecology, including metering data.

A certificate of change will not be issued until a final investigation is made.

## CONCLUSIONS

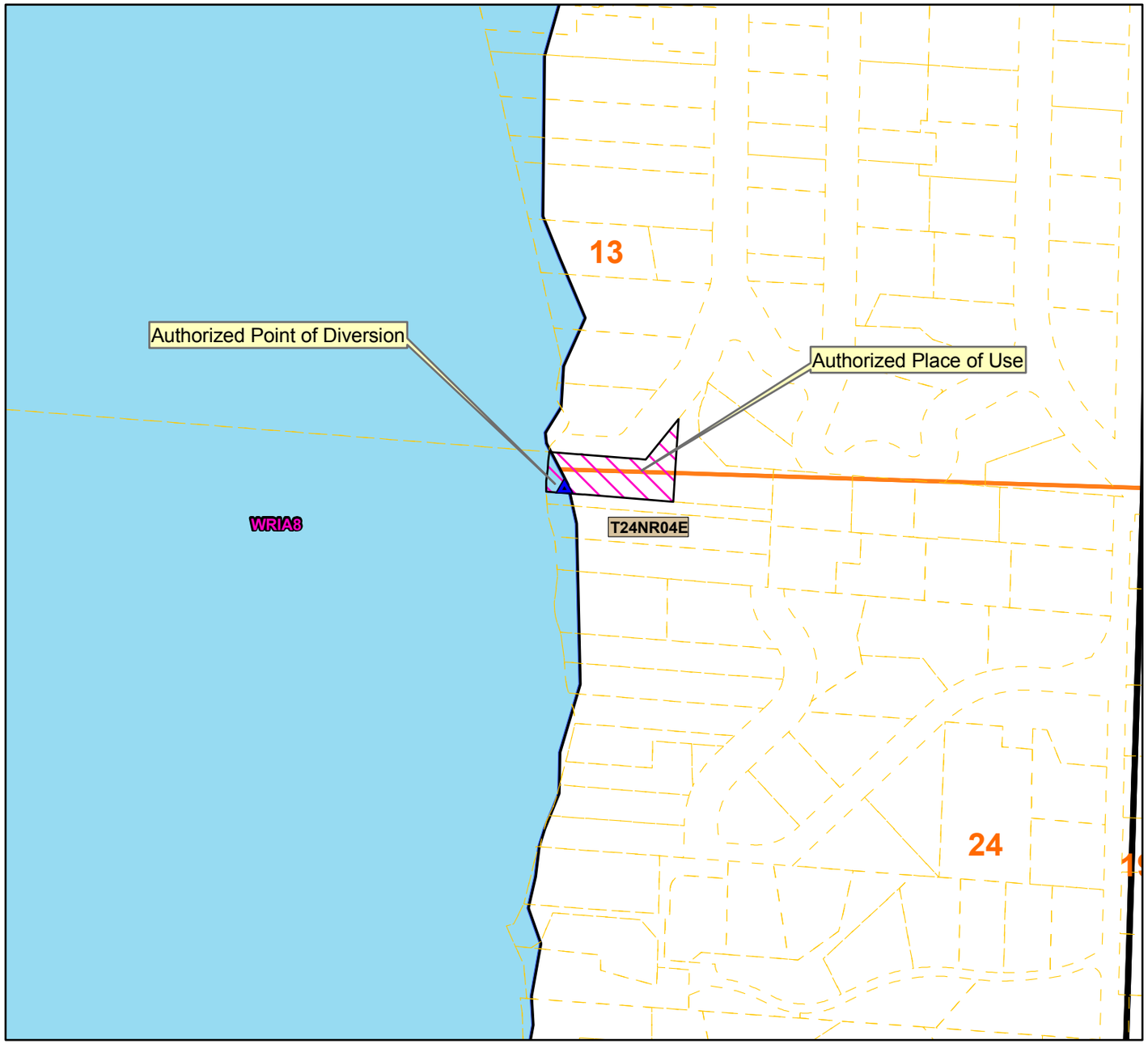
In accordance with chapters 90.03, 90.14, and 90.44 RCW, I conclude that Water Right Claim 158498 is in good standing and is eligible for change. I have determined that the change to Water Right Claim 158498 will not enlarge the claim and the water use will be beneficial. Approval of this change request will not cause impairment of existing rights or be detrimental to the public interest. Based on these conclusions, this change request should be approved subject to existing rights and the above-indicated provisions and a certificate of change should be issued once the change has been perfected.

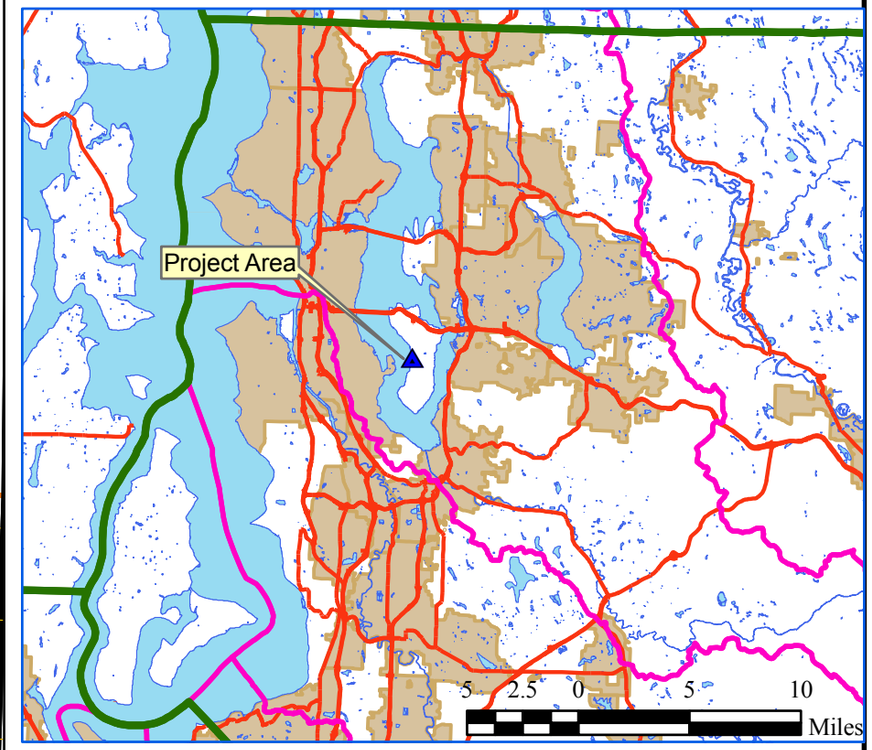
REPORT BY: _____ DATE: _____

Melisa Snoeberger

Benjamin Cropp
Water Right Number CG1-158498CL@98
Sec. 24, T 24N, R 04E. W.M.
WRIA 8 - King County

DEPARTMENT OF ECOLOGY
State of Washington




**Legend**

- County
- WRIA
- cities
- Highways
- Local Roads
- Townships
- Sections
- Parcels
- Authorized Point of Diversion
- Authorized Place of Use

**Place of use and point(s) of diversion/withdrawal are as defined on the cover sheet under the headings, 'LOCATION OF DIVERSION/WITHDRAWAL' and 'LEGAL DESCRIPTION OF PROPERTY ON WHICH WATER IS TO BE USED.'**

**Attachment 1**