STATE OF WASHINGTON

DEPARTMENT OF ECOLOGY

REPORT OF EXAMINATION FOR CHANGE

TO APPROPRIATE PUBLIC WATERS OF THE STATE OF WASHINGTON

Surface Water

cissued is accordance with the previsions of Chapter 117. Lawa of Washington for 1917, and

amendmental themeta, and the rules sad regulations of the Department of Ecology )

Ground Water

(latued is accordance with the provisions of Chaples 260, Laws of Washington for 1943, end

annomenta diereto, and the rules and regulation of the Department of Ecology )

FIJORITY DATE

APPLICATION NUMBER

PERMIT NUMBER

CERTIFICATE NUMBER

June 12, 1989

G1-25463

G1-25463P

NAME

Whatcom County PUD #1

ADDRESS (STREET)

(CITY)

(STATE)

gair CODID

1705 Trigg Rd

Ferndale

Washington

98248

PUBLIC WATERS TO BE APPROPRIATED

SOURCE

Three wells and a pond

TRIBUTARY OF (IF SURFACE WATERS)

MAXIMUM culuc FEFT PER SECOND

MAXIMUM GALLONS PER MINUTE

MAXIMUM ACRE FEET PER YEAR

116

92.8

QUANTITY TYPE OF USE PERIOD OF USE

Industrial use - Continuously

Fire Protection - As Needed

LOCATION OF DIVERSION/WITHDRAWAL

APPROXIMATE LOCATION OF DEVELOSION WITHDRAWAL

Well #1 - 1200 feet South and 1500 feet West from the NE corner of Section 7, T39N, R2E, W.M.

Wells #3 and #4 - 1200 feet South and 2400 feet West from the NE corner of Section 7, T39N, R2E, W.M.

Pond Well - 900 feet North and 600 feet East from the SW corner of Section 6, T39N, R2E, W.M.

LOCATED WITHIN (SMALLEST LEGAL SUBDIVISION)

SECTION

TOWNSHIP N

RANGE (E. OR WJWM

WRITA

COUNTY

Wells: NW 1/4, NE 1/4

7

39N

2E

01

Whatoom

Pond: SW 1/4, SW 1/4

6

39N

2E

01

Whatcom

RECORDED PLATTED PROPERTY

LOT

BLOCK

OF (GIVE NAME: OF PLAT OH ADDITION)

LEGAL DESCRIPTION OF PROPERTY ON WHICH WATER IS TO BE USED

See Attachment A' for a legal description of the new Place of Use.

6

Merpriss

Realigned Portion

Weil 1

.-

3019

BMC

Wells 3 and 4

ROAD

0.2

0

0.2

0.4

0.0

0.8

1 Miles

Explanation

WASHINGTON

R

Original Painta of Withdrawal

New Paint of and Polor of Withdrawal for 01-254610

Paed

Surface water drairage nat shawn on map including resigned portion of California Creak

Approximate Ground Watter Flow Direction

REPORT OF EXAMINATION FOR CHANGE

DESCRIPTION OF PROPOSED WORKS

A detailed description of existing and proposed withdrawal points is provided in the "Hydrogeology" section under the "Point of W

Construction" subsection. This system is identified by the Washington State Department of Health by Public Water System ID a

DEVELOPMENT SCHEDULE

SEGIN PROJECT BY THRS DATE

COMPLETE PROJECT BY nos DATE

WATER PUT TO FULL USE BY THIS DATE

Project Begun

August 18, 2031

August 18, 2031

REPORT

BACKGROUND INFORMATION

On June 12, 1989, Oxy Corporation applied to the Department of Ecology for an industrial use and fire protection water right to a

116 gpm for industrial use and fire protection. The water right application was assigned number G1-25463.

On November 15, 1990, water permit G1-25463P was issued to Oxy Corporation. The permit was approved for withdrawal of 11

92.8 acre-feet per year from three wells in the NW 1/4, NE 1/4, Section 7, T39N, R2E, W.M.

On July 8, 1993, the Department of Ecology accepted a change application from Public Utility District No. 1 of Whatcom County.

change application requested to change the place of use and add an additional point of withdrawal/diversion from a pond.

Attributes of the Original Permit

Name on Certificate:

Oxy Corporation

Priority Date:

June 12, 1989

Instantaneous Quantity:

116 gallons per minute (gpm)

Annual Quantity:

92.8 acre-feet per year (afy)

Point of Withdrawal

NW%, NE% Section 7, Township 39 North, Range 2 East W.M.

Purpose of Use:

Industrial and fire protection

Period of Use:

Continuously

Place of Use:

That portion of the NW 1/4 of the NE 1/4 of Section 7. Township 39 North, Range 2

East, of W.M., lying southwesterly of the Great Northern Railroad right-of-way. Less

roads. Together with and subject to all easements, agreements, covenants and

restrictions of record. Situate in Whatcom County, Washington.

Proposed Change

Name of Applicant:

Public Utility District No. 1 of Whatcom County

Date of Application for Change:

July 8, 1993

Added Point of Withdrawal/Diversion:

SW%, SW%, Section 6, Township 39 North, Range 2 East, W.M.

New Place of Use:

See legal description above

Notice of Publication:

October 25 and November 1, 1993

Protests:

None

Purpose of the Change Application

The purpose of this change application is to add a pond as an additional point of withdrawal/diversion for the water right, and to

place of use. The pond is located downstream of the three wells that are the original points of diversion (details in Hydrogeology

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

Washington State Department of Health Comments

Existing water rights on file for Whatcom PUD #1 Water System

Records of other water rights in the vicinity

Notes from site visit on March 22, 2005

Correspondence from Mr. Steve Boessow at the Washington Dept. of Fish and Wildlife

Topographic and local area maps

2004 Comprehensive Water System Plan for PUD No. 1 of Whatcom County

Legal description for new Place of Use for Grandview-Northgate service area provided on October 26, 2006

A letter from the PUD's counsel to Ecology written on August 11,2006 relating the history of the project

A letter from the PUD's counsel to Ecology written on August 2006 relating to extension of the original permit development sche

State Water Code

Chapters 90,03 and 90.44 RCW authorize the appropriation of public water for beneficial use and describe the process for obtai

rights including the process to amend or change existing rights. Laws specifically governing the water right permitting process a

90.03.250 through 90.03.340 and RCW 90.44.060. Changes or amendments to these rights are covered primarily under RCW 9

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 State Department of Fish and Wildlife Comments

A copy of this change application was sent to the Department of Fish and Wildlife (WDFW) for their review. On March 30, 2005,

Department of Ecology received a letter from the WDFW stating that, "California Creek is a highly productive coho stream worth

protection and restoration. Since this proposal does not withdraw additional water above the original water right WDFW waives o

this application."

Existing Rights for the Water System

There are currently seven water rights held by the PUD #1 (Table 1) as per their 2004 Water System Plan.

Table 1. Water

Rights Held by the

Whatcom County

PUD #1

Water Right

Type

Priority Date

Qi

Qa

Original Point

Number

(gpm/cfs)

(acre-feet per

of Withdrawal

year)

or Diversion

2505-A

Irrigation of 70 acres

March 5. 1953

200 gpm

140

Well

6000

Manufacturing

Dec 17, 1954

5 cfs

3622

Nooksack River

S1-00707C

Municipal/Irrigation

April 16, 1965

50 cfs

22067/5600

Nooksack River

S1-00708

Municipal

Sept 27, 1968

28 cfs

17880

Nooksack River

G1-25463P

Industrial/Fire Protection

June 12, 1989

116 gpm

92.8

Three Wells

GI-26325C

Fire Fighting

Sept 11, 1991

1350 gpm

as needed

Infiltration

Trench/Pond

Praxair exempt

Exempt Industrial

1996

Up to 5000 gpd

Up to 5.6 afy

Well

Other Water Rights in the Vicinity

In addition to those water rights held by the PUD #1 of Whatcom County, there are 15 water right certificates, zero water right pe
water right claims in Sections 6 and 7 in Township 39 North, Range 2 East and Sections I and 12 in Township 39 North, Range
are listed below. There are also approximately 105 exempt water wells in the same legal delineation. It is likely that some wells o
exempt here are actually associated with water right claims in Table 3. The true extent of the water right represented by a water
can only be determined in a county superior court in a general water right adjudication. Since this area has not been adjudicated
the water rights under claims listed in Table 3 is not known.

Certificates

Table 2. Ground and Surface Certificates in the Source Area

Certificate No.

Name on

Priority

Authorized Use

Instantaneous

Annual

POD Location

Surface/Ground

Certificate

Date

Quantity

Quantity (afy)

714 /Ground

Orchard

12/10/1945

Irrigation, Multiple

50 gpm

81

Sec. 07, Twp. 39N.,

Water Assoc

Domestic

R. 2E.

4850 / Surface

C.L. Smith

6/27/1951

Single Domestic

0,01 efs

Unspecified

Sec. 12, Twp. 39N.,

R. 1E.

1995 / Ground

L. Hansen

2/8/1952

Irrigation, 20 acres

130 gpm

40

Sec. 07, Twp. 39N.,

R. 2E

2248 / Ground

H.F.

9/17/1952

Irrigation, 51 acres

160 gpm

76.5

Sec. 06, Twp. 39N.,

Rasmussen

R. 2E

2505 / Ground

W.T. Handy

3/5/1953

Irrigation, 70 acres

200 gpm

140

Sec. 06, Twp. 39N.,

R. 2E

2184 / Ground

B. Ruffino

5/1/1953

Irrigation, 32 acres

320 gpm

64

Sec. 06, Twp. 39N.,

R. 2E

2042 / Ground

Delta Pacific

5/14/1953

Irrigation, 15 acres

66 gpm

30

Sec. 01. Twp. 39N.,

LLC

R. 1E

7495 / Surface

L.P. Ferrill

10/15/1958

Irrigation, 18 acres

0,18 cfs

36

Sec. 01, Twp. 39N.,

R. 1E

4069 / Ground

Custer Wat.

7/20/1961

Multiple Domestic

50 gpm

73

Sec. 01, Twp. 39N.,

Association

R. 1E

10859 / Surface

L.J. Pollett

7/14/1965

Irrigation, 25 acres

0.25 efs

50

Sec. 01, Twp. 39N.,

R. 1E

7329 / Ground

US Dept of

4/4/4967

Irrigation, 0.5 acres

45 gpm

8

Sec. 01, Twp. 39N.,

Interior,

Heat Exchange

R. 1E

Bonneville

Power Ad.

6813 / Ground

Custer Wat.

8/26/1968

Multiple Domestic

85 gpm

75

Sec. 01, Twp. 39N.,

Association

R. 1E

G1-20617C

J.W.

5/14/1973

Irrigation, 4 acres

35 gpm

53

Sec. 07, Twp. 39N.,

Kimbrough

R. 2E

G1-21216C

Custer Wat.

2/1/1974

Multiple Domestic

100 gpm

90

Sec. 01, Twp. 39N.,

Association

R. 1E

GI-26325C

J.I.J. Const.

9/11/1991

Fire Protection

1350 gpm

Unspecified

Sec. 06, Twp. 39N.,

Co. Inc.

R. 2E

REPORT RXAMINATION FOR CHANGE

3

G1-25463P

Permits

There are no permits in the designated sections other than the subject of this Report of Examination, GI-25463P.

Claims

Table 3. Water Right Claims in the Source Area, Arranged by Location

Water Right Claim

Long or Short Form

Name

Location

G1-161980CL

Long

Jack H. Stephesn

T. 39N, R. 01E, Sec. 01

GI-132943CL

Long

Richard R. McBride

T. 39N, R. 01E, Sec. 01

G1-131448CL

Long

Citizens Fed. Savings and Loan

T. 39N, R. 01E, Sec. 01

G1-111703CL

Long

Robert J. Brandt

T. 39N, R. 01E, Sec. 01

G1-092367CL

Long

Jack H. Stephens

T. 39N, R. DIE, Sec. 01

G1-055956CL

Long

Alfred H. Allred

T. 39N, R. 01E, Sec. 01

G1-042610CL

Long

Joe C. Ferry

T. 39N, R. 01E, Sec. 01

GI-037397CL

Long

Frank J. Spring

T. 39N, R. 01E, Sec. 01

GI-028611CL

Long

Herman F. Stephens

T. 39N, R. 01E, Sec. 01

G1-014929CL

Long

John C. Hamilton

T. 39N, R. 01E, Sec. 01

G1-012699CL

Long

Dale Hamilton

T. 39N, R. 01E, Sec. 01

G1-011918CL

Long

Ladd P. Womack

T. 39N, R. 01E, Sec. 01

G1-126818CL

Short

Andrew Pekema

T. 39N, R. 01E, Sec. 01

GI-123914CL

Short

Andrew Pekema

T. 39N, R. 01E, Sec. 01

G1-111702CL

Short

Robert J. Brandt

T. 39N, R. 01E, Sec. 01

G1-104278CL

Short

Clifford W. Thompson

T. 39N, R. 01E, Sec. 01

G1-096049CL

Short

Matt A. Wiggum

T. 39N, R. 01E, Sec. 01

GI-072537CL

Short

Norman C. Rauch

T. 39N, R. 01E, Sec. 01

GI-069991CL

Short

Raymond L. Butler

T. 39N, R. 01E, Sec. 01

GI-070004CL

Short

Frances C. Tollefson

T. 39N, R. 01E, Sec. 01

GI-060835CL

Short

Edward B. Ross

T. 39N, R. 01E, Sec. 01

G1-053788CL

Short

Walter E. Stark

T. 39N, R. 01E, Sec. 01

G1-047217CL

Short

Herman F. Stephens

T. 39N, R. 01E, Sec. 01

GI-158373CL

Long

Alan E. Johnson

T. 39N, R. 01E, Sec. 12

G1-143325CL

Long

Russell W. Sweet

T. 39N, R. 01E, Sec. 12

GI-143326CL

Long

Russell W. Sweet

T. 39N, R. 01E, Sec. 12

GI-143327CL

Long

Russell W. Sweet

T. 39N, R. 01E, Sec. 12

GI-139013CL

Long

John E. Weden

T. 39N, R. 01E, Sec. 12

GI-083327CL

Long

Lester A. Bedlington

T. 39N, R. 01E, Sec. 12

SI-158374CL

Short

Alan E. Johnson

T. 39N, R. 01E, Sec. 12

G1-145275CL

Short

George L. Menge

T. 39N, R. 01E, Sec. 12

G1-143135CL

Short

George L. Menze

T. 39N, R. 01E, Sec. 12

G1-142796CL

Short

Charles R. Burleson

T. 39N, R. 01E, Sec. 12

G1-099419CL

Short

Lawrence F. Levien

T. 39N, R. 01E, Sec. 12

G1-081349CL

Short

Walter H. Irving

T. 39N, R. 01E, Sec. 12

G1-080726CL

Short

Tom C. Pomeroy

T. 39N, R. 01E, Sec. 12

G1-066860CL

Short

Harold L. Carter

T. 39N, R. 01E, Sec. 12

G1-064377CL

Short

Clarence Schmidt

T. 39N, R. 01E, Sec. 12

G1-058718CL

Short

Charles T. Smith

T. 39N, R. 01E, Sec. 12

G1-094800CL

Long

L.H. Leighton

T. 39N, R. 02E, Sec. 06

G1-036700CL

Long

Gertrude Sager

T. 39N, R. 02E, Sec. 06

G1-029671CL

Long

Alta M. Schuyler

T. 39N, R. 02E, Sec. 06

G1-010503CL

Long

Henry F. Rasmussen

T. 39N, R. 02E, Sec. 06

G1-010504CL

Long

Henry F. Rasmussen

T. 39N, R. 02E, Sec. 06

G1-083695CL

Short

Gregory Edin

T. 39N, R. 02E, Sec. 06

G1-083204CL

Short

Ronald J. Handy

T. 39N, R. 02E, Sec. 06

G1-067865CL

Short

Harold Christensen

T. 39N, R. 02E, Sec. 06

G1-060149CL

Short

Sidney M. Peuck

T. 39N, R. 02E, Sec. 06

G1-131968CL

Long

Irene E. Kinley

T. 39N, R. 02E, Sec. 07

G1-131969CL

Long

Irene E. Kinley

T. 39N, R. 02E, Sec. 07

G1-033547CL

Long

Donald D. Schnackenberg

T. 39N, R. 02E, Sec. 07

G1-028216CL

Long

Earl L. Powell

T. 39N, R. 02E, Sec. 07

G1-028387CL

Long

J.C. Baker

T. 39N, R. 02E, Sec. 07

G1-027361CL

Long

Kimbrough and Parr

T. 39N, R. 02E, Sec. 07

G1-022494CL

Long

John L. Boyd

T. 39N, R. 02E, Sec. 07

G1-013623CL

Long

Odin P. Berger

T. 39N, R. 02E, Sec. 07

G1-145619CL

Short

Gregory L. Pike

T. 39N, R. 02E, Sec. 07

G1-142022CL

Short

Julian M. Johnston Sr.

T. 39N, R. 02F, Sec. 07

G1-138965CL

Short

John A. Razevich

T. 39N, R. 02E, Sec. 07

GI-099420CL

Short

Gwendolyn M. Levien

T. 39N, R. 02E, Sec. 07

GI-084429CL

Short

Leon Maddux

T. 39N, R. 02E, Sec. 07

G1-25463P

Site Visit

The site visit was conducted on March 22, 2005. Present were Mr. Tom Anderson, general manager of the Whatcom PUD #1, A hydrogeologist with this office, and myself. We first observed the new point of withdrawal, which consists of a seven foot diamete connected to an adjacent spring-fed pond via gravel filtration. The well is situated in a pumphouse, and there are two pumps in t first primary pump had an indicated capability of 1760 gpm at 250 horsepower, but the applicant indicated the pump is actually c 3000 gpm. The second smaller pump (15 horsepower) is present to keep the system pressurized The pond is located next to Ca separated from it by a large berm. There is an overflow channel, through which water flows into the creek when water in the pon certain level.

Wells 1, 3 and 4 were also visited. See Hydrogeology section for more details about existing and new points of withdrawal.

Topographic and Local Area Maps

The Bertrand Creek USGS 1:24,000 scale topographic map, dated 1972, and maps provided by the applicant were used during investigation.

2004 Comprehensive Water System Plan

Chapter six of the PUD's most recent water system plan contains water resource and water right data, and was used for this rep

Current Water Use

Table 4. Monthly Well Production (gal.)

1996

1997

1998

1999

2000

2001

2002

2003

2004

2005

2006

Jan

75,978

82,100

93,710

148,020

197,950

236,838

185,060

178,920

254,400

Feb

63,021

232,620

104,580

100,530

157,120

177,700

195,970

221,100

Mar

221,900

115,685

115,615

290,600

240,200

171,360

145,500

435,662

255,690

197,180

210,226

Apr

179,155

100,560

102,575

171,715

131,000

153,030

175,370

181,434

320,560

253,300

221,600

May

138,756

144,425

92,290

202,025

185,085

186,110

157,460

228,566

387,790

429,200

256,600

Jun

102,179

110,990

144,720

199,720

142,535

142,940

207,235

221,000

413,090

493,400

277,100

Jul

182,085

83,320

181,820

151,180

184,390

268,045

289,200

405,680

559,900

365,300

Aug

220,655

205,490

170,580

223,110

191,790

235,630

273,480

231,400

403,430

741,550

Sep

86,428

132,655

184,490

208,110

144,560

203,290

161,050

223,850

395,737

487,250

Oct

106,145

131,490

129,610

169,520

145,420

151,150

181,870

260,363

282,760

Nov

87,950

93,190

112,020

176,570

131,590

132,910

181,274

468,705

191,400

282,410

Dec

60,883

105,480

91,700

140,820

179,750

148,130

258,406

388,445

326,230

198,130

Total

1,204,051

1,461,049

1,459,540

2,150,690

1,736,820

1,957,490

2,364,760

2,905,100

3,722,730

4,299,970

1,806,326

Mo.

Avg.

133,783

121,754

132,685

179,224

157,893

163,124

197,063

290,510

310,228

358,331

258,047

Afy

3.7

4.5

4.5

6,6

5,3

6

7.3

8,9

11.4

13.2

Table 4. Water withdrawn by the current wells for G1-25463P from the time the right was acquired by the PUD in March 1996 th

July 2006

HYDROGEOLOGY

The following information is taken from the Hydrogeologic Report for Change Application G1-25463 by Andrew Dunn, staff hydrogeologist. Table and figure numbers herein refer to those in this section only:

Background

On July 8, 1993, the Department of Ecology received a change application submitted by the Public Utility District No. / of Whatco County to change ground water permit GI-25463P. This water right change application requests to add a pond as an additional p withdrawal The proposed pond is located in the SW 1/4, SW % Section 6, Township 39N, Range 2E, W.M., Whatcom County, Washington, which is in WRIA I.

On March 22, 2005, Paul Fabiniak (Ecology report writer) and I (Ecology hydrogeologist) performed a site visit to the area during which we met with Tom Anderson, Manager of the Public Utility District No. / of Whatcom County.

Geographic Setting of the Grandview Area, Whatcom County, Washington

The site is located at an elevation of approximately 60 to 110 feet above sea level in the headwaters of the California Creek wat

The site is located on the base of the northeastern edge of the Mountain View Upland The highest point on the upland, located t

southwest of the site, is approximately 360 feet above sea level.

Point of Withdrawal/Diversion Construction

Table / describes the wells and the structure at the pond that has been used or is proposed to be used to withdraw water under

right. The location of all wells and the pond can be seen in the figure on page one of this ROE.



Table 1. Well Construction Information

Well

Casing

Approx. Top of

Depth

Depth of

Elevation

Depth to Water

Approx. Elevation

Date of Water

Diam.

Casing (TOC)

of Well

Screened

of Screened

below TOC

of Potentiometric

Level

(in)

Elevation

(ii)

Interval

Interval

(ii)

Surface

Measurement

(ii)

(ii)

(ii)

(1)

1

6

105

108

98 to 108

7 to -3

48

57

9/19/1988

AGK-350

3

6

110

157

152 to 157

-42 to 47

48.25

61.75

5/23/1989

4

16

110

148

112 to 144

-2 to -34

42.25

67.75

8/9/1988

39

71

4/29/1991

Pond

84

65

2

?

?

2 (est)

63 (est)

3/22/2005

Well / (Unique well ID AGK-350) is used to provide potable water to the buildings within the industrial park for domestic and indu uses. The water is pumped from the well, treated with chlorine, piped to a 30,000 gallon storage tank, and then routed through s pressure tanks before being released into the distribution system. Tom Anderson indicated that the chlorine treatment is require the long residence time in the storage tank. Well I was approved as a point of withdrawal in the original report of examination an gpm and 92.8 acre-feet per year was approved for industrial use. This well has a water meter installed that read 21,777,000 gall the date of the site visit. On the power box inside the pump house it documented that the pumping rate for this well had been me 93.6 gpm on both March 30, 2001 and April 6. 2004.

Wells 3 and 4 are approximately 5 feet apart and are located within the same pump house. Well 3 is used to keep the fire suppr system "charged" at the correct operating pressure. Well 4 will provide the system with the rate of flow necessary when actively a fire in the industrial park, if they should need it. The original report of examination for GI-25463 (10/3/1990) indicated that Well could pump at a rate of approximately 2100 gpm. Wells 3 and 4 were approved as points of withdrawal in the original report of examination along with their use for fire protection. However, the only limit given on the water right document was for the Industr use. In case of a fire, any rate or quantity of water can be used to put the fire out During the site visit we could not measure the c water, but someone had documented the depth to static water level (a) 39 feet below the top of the casing on April 29, 1991, by on the face of the pressure gage. Neither Well 3 nor Well 4 has a water meter installed

Tom Anderson expressed Public Utility District No. / of Whatcom County's desire to have the pond approved as a point of withdr under their water right. Their thinking was that if an Industrial user did not require potable water for their process, then the pond could be used out of the fire protection pipes for that purpose. This would reduce the demand on the potable water system and w reduce the amount of chlorine that they need to use.

The point of withdrawal/diversion at the pond represents the gray area between surface water and ground water rights. One grou water certificate (GI-26325C) already exists for the pond at the same location as the proposed withdrawal/diversion, When the p originally excavated I do not believe that it was directly connected to California Creek However, a man-made change to the locat California Creek and tributary streams now directly connects the pond to the stream network The structure that the pumps are completed in is actually an 84 inch diameter concrete easing constructed at the edge of the pond Gravel was imported and place

around the casing to filter the water. So, water moves from the pond through the gravel filter and into the large diameter casing b being pumped into the fire protection or proposed water distribution system. Hydrogeologically the withdrawal/diversion structure similar to a shallow well being drilled next to a surface water body.

California Creek Surface Water Basin

The California Creek watershed is approximately 22.8 square miles in size. California Creek itself has a total length of approxima miles (Division of Water Resources, 1960). California Creek drains to the northwest into the saltwater of Drayton Harbor, just sou the City of Blaine and the Canadian border.

California Creek is inhabited by coho salmon and resident game and non-game fish (Boessow, 2005).

The minimum flow documented at the gage site prior to 1960 was 0.33 ofs measured on August 19, 1958. For the 1954 irrigation the lowest flow measured was 0.8 ofs (Division of Water Resources, 1960).

The Department of Ecology has established a manual staff gage for California Creek just downstream of Valley View Road (SE Section 27, T40N, RIE, W.M.). Unfortunately, a rating curve has not been developed for this site, due to vegetation growth in the channel, so the stage height can not accurately be correlated to a stream discharge. The most recent stage measured for this si 3.96 feet on March I, 2005. The drainage area feeding the creek upstream of this stream gage is approximately 11 square miles and the elevation of the stream gage is approximately 15 feet above sea level (Division of Water Resources, 1960). Since the ne collected data does not convert the stage to a discharge, I am unsure how the current measurements compare to the older 1950 data.

From the assembled data it appears that the lowest flows in California Creek typically occur during August and the highest flows during the winter months.

The pond that is proposed as a point of withdrawal is currently connected to California Creek A spring-fed stream flows to the no of the Mountain View Upland before entering the pond at its southeastern end The pond has an overflow structure to the northw the proposed withdrawal/diversion structure that allows water from the pond to flow directly into California Creek At the time of th visit a beaver had constructed a dam at the overflow structure, which raised the water level in the pond by approximately one foo making the pond surface elevation approximately 3 to 4 feet higher than the level of California Creek adjacent to the pond. It is u if the pond discharges directly to the creek all year round or if the water level in the pond drops in the summer and eliminates su outflow. The close proximity of the pond and California Creek combined with the higher water level elevation of the pond sugges

in addition to any surface water flow, ground water seepage from the pond also discharges into the creek

All of the original points of withdrawal and the proposed pond are all located within the California Creek subbasin as defined by t

WRIA / watershed planning group (2001) (Figure 2).



Hydrogeology of the Grandview Area, Whatcom County, Washington

The two geographic settings described above also have different geologic features that influence the ground water hydrology. Th

different settings are the Mountain View Upland and the Custer Trough. The Custer Trough contains a thin unconfined aquifer co

of sand that was deposited as distal glacial outwash by the glacier that advanced and retreated during the Sumas Stade (Cax an

1999). The Sumas outwash overlies a very thick (several hundred feet) sequence of glaciomarine drift or marine silt and clay do

deposits. Most wells in the Custer Trough tap ground water in the Sumas outwash aquifer.

Table 2. Geology of the Grandview Area

| Unit Name | Description | Age | Typical Thickness |
|---|---|---|---|
| Sumas Outwash | Dominantly sand with little gravel. Occurs in the Custer Trough below an elevation of approximately 80 feet. Unconfined aquifer. Most common aquifer tapped in the Custer Trough in this area | 10,000 to 11,000 years old | 0 to 35 feet |
| Everson | Dominantly silt and clay with gravel and sand | | |

18,000 to 11,000 years old

40 to several hundred feet

Glaciomarine

Occasionally clamshells. Primarily aquitard

Drift and Vashon

Glacial Till

Vashon Advance

Sand and Gravel. Unconfined to confined aquifer.

18,000 to 13,500 years old

100 feet

Outwash (or

Most common aquifer tapped on the Mountain View

Deming Sand

Upland in this area

per Didricksen,

1997)

Non-glacial unit

Layers of sand, silt, and some gravel. Primarily

> 18,000 years old

Several hundred feet

aquitard

The Mountain View Upland consists of glacial and non-glacially derived deposits as described in Table 2. Most wells in this part

upland, including the three Public Utility District No. / of Whatcom County, withdraw water from the unconfined to confined sand

gravel aquifer / have referred to as the Vashon Advance Outwash and Didricksen (1997) referred to as the Deming Sand.

Didricksen (1997) created three cross sections that run through the area containing all of the wells and the pond relating to this

application. The cross sections of interest are A-4', B-B: and F-F* (Appendix B). Didricksen identifies that the geologic units cont

on the Mountain View Upland Portion of the site consists primarily of Bellingham Drift (unit Qb) (glaciomarine drift) overlying Den

Sand (unit Qd) (fluvial deposit). She also shows a thin layer of a unit she calls "Sand & Gravel over Drift" (unit Qbg) which occurs

above the Bellingham Drift on the lower elevations of the Mountain View Upland Within the Custer Trough, Didricksen identifies

the thin "Outwash Sand and Gravel" (unit Qso) is found at the ground surface and is underlain by the Bellingham Drift and possi

Deming Sand

Didricksen's Deming Sand unit is what I have referred to as the Vashon Advance Outwash Either way the name of the unit is les

important than its composition, which is defined above and can be seen in the well logs and cross sections in Appendices A thro

Aquifer Recharge

The aquifer(s) tapped by all of the original points of withdrawal are recharged by infiltration of water on the Mountain View Uplan

Ground Water Flow Directions

Ground water generally flows from higher areas of the Mountain View Upland toward the lower-lying area that contains California

Dakota Creeks and is referred to as the Custer Trough (Figure 1). Ground water captured by the original wells under this water r

would naturally discharge to California Creek if it had not been captured Ground water flow is not fully contained within one aquif

but instead moves between different aquifers and through aquitards.

The pond is located slightly downstream from where the ground water naturally flowing past the original points of withdrawal wou

likely discharge to the stream network

Ground Water Levels over Time

Using the limited water level information that exists for the original points of withdrawal, it appears that the ground water levels h

not declined or increased significantly since the wells were drilled (Table 1).

Aquifer Testing

No aquifer testing was performed or deemed necessary for this change application.

Conclusions for Water Right Hydrogeologic and Hydrologic Assessment

Since this report is being prepared for a change to an existing ground water right, the hydrogeologic questions posed in RCW 90

and RCW 90.44.100 that must be answered by the Department of Ecology are as follows:

1. Is the proposed point of diversion and original points of withdrawal within the same source of water?

2.

Will approval of this water right impair any existing water right holders?

3. Will approval of this water right change be detrimental to the public welfare?

Same Source of Water

The original wells and the proposed pond are considered to be water within the same source for the following reasons:

I. The wells and pond are all located within the California Creek subbasin as defined by the WRIA / watershed planning group.

2. The wells and pond are located in relatively close proximity, within 4250 feet of each other.

3.

The water level elevation of the pond is similar to the static water level elevation measured in the wells.

REPORT OF EXAMINATION FOR CHANGE

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G1-25463P

4.

Ground water captured by the original wells would naturally discharge to California Creek Water captured at the proposed pond would naturally discharge to California Creek, either as surface water or as ground water seepage.

Impairment Analysis

Allowing the water right holder to pump water from the edge of the pond as opposed to pumping entirely from the three existing will not impair any water right holders for the following reasons:

I.

Pulling some water from the pond will actually shift some of the streamflow reduction of California Creek a little downstream compared to pumping from the existing wells.

2.

No water right holder, other than the Public Utility District No. / of Whatcom County relies on the pond as the source of water from exercise of their water rights.

3.

The nearest certificated downstream appropriator diverting surface water from California Creek is located over 7200 feet downstream.

4.

The nearest documented ground water certificate is located approximately 2000 feet from the pond and no other water wells were seen in close proximity to the pond during the site visit.

Public Interest

No detriment to the public interest could be identified during this hydrogeologic investigation that would result from approval of th water right application.

Recommendations

Based on the conclusions of this report, feel that hydrogeologically this application can be approved However, if there are other factors that require the application to be denied, it must be denied regardless of the hydrogeologic conclusions.

REPORT OF EXAMINATION FINDINGS

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

The following tests must be addressed when processing a request for a change in point of withdrawal and place of use:

Is water available at the new point of withdrawal/diversion?

Will the change create an enlargement of the original right?

Does the additional point of withdrawal/diversion tap the same body of public ground water as the original point(s) of withdrawal

Will the change cause impairment to other existing rights?

Will the public interest be impaired?

What are the protestors concerns?

Water Availability

Based upon observations of the capabilities of the new well and characteristics of the adjacent pond during the field exam, in co with the hydrogeologic assessment made above, it can be concluded that water is available at the new point of withdrawal/diver the specified quantities.

Potential for Enlargement

This investigation has determined that Groundwater Permit G1-25463P is in good standing. Adding the additional point of withdrawal/diversion will not result in an enlargement of the right because no additional water beyond that approved for the perm be withdrawn from any combination of the new and original sources. Therefore, approval of this change will not result in the

enlargement of groundwater permit G1-25463P.

Same Body of Public Ground Water

Based upon the information and analysis provided in the hydrogeologic assessment above, it can be concluded that the new poi

withdrawal/diversion is in the same body of public groundwater as the original points of withdrawal.

Impairment of Other Rights

As stated in the hydrogeologic assessment above, no impairment of other rights will occur upon approval of this change.

Public Interest

No detriment to the public interest could be identified during the investigation of this application for change. The change is not sp

nature, as it is occurring as part of an ongoing project.

Protests

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

DISCUSSION

Based upon the detailed history provided by the applicant, the development of the permit has been pursued with due diligence, a

progress is being made in fulfilling the original intent of the project. This detailed history is provided in a letter from counsel for th

dated August 11, 2006. It contains a detailed account of development of the Grandview Light Industrial Zone and surrounding pr

1989 to August of 2006. From the outset, the intention of the original applicant, Oxy Corporation, was to connect their water syst

neighboring Jantzen system and allow the Whatcom PUD #1 to acquire and run the project as a water district. This information s

REPORT OF EXAMINATION FOR CHANGE

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G1-25463P

basis for determining that the place of use expansion is not an enlargement of the intent of the project. This letter will be perman

in the file for future reference.

RECOMMENDATIONS

I recommend the request for change to G1-25463P 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 amo

water within the specified limit that is beneficially used and required.

Metering Provision:

An approved measuring device shall be installed and maintained for each diversion/withdrawal of the sources 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 weekly. The maximum annual instantaneous rate of diversion/withdrawal and the annual total volume shall be submitted to Ecology by January 31st of the following year.

The following information shall be included with each submittal of water use data: owner, contact name if different, mailing address, daytime phone number, Permit/Certificate/Claim No., source name, volume including units, Department of Health WFI water system number and source number(s) (for public drinking water systems), and well tag number (for ground water withdrawals). In the future, Ecology may require additional parameters to be reported or more frequent reporting. Ecology prefers web based data entry, but does accept hard copies. Ecology will provide forms and electronic data entry information.

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 record of water use that are kept to meet the above conditions, and to inspect at reasonable times any measuring device used to meet above conditions.

Proof of Appropriation:

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

Water Level Monitoring:

In order to protect the resource, static water level (SWL), represented by depth to water for existing and replacement wells shall be measured at least once each month. Measurements shall be taken after the pump has been shut off a reasonable time to allo

water level to return to normal. Ecology's Water Resources program (NWRO) shall be notified if a below normal seasonal drop is measured in SWL, otherwise this data shall be maintained and be made available to Ecology upon request.

Well Decommissioning

Any approved points of withdrawal under this water right that are no longer planned to be used shall be properly decommissione within a reasonable amount of time.

CONCLUSIONS

In accordance with chapters 90.03 and 90.44 RCW, I conclude that ground water permit G1-25463P is in good standing and is e change. I have determined that the change to GI-25463P will not enlarge the permit and the water use will be beneficial. Approv change request will not cause impairment of existing rights or be detrimental to the public interest, Based on these conclusions, request should be approved subject to existing rights and the above-indicated provisions and a superseding permit should be iss

Pl Fahil

REPORT BY:

DATE:

3/28/07

Paul Fabiniak

REPORT OF EXAMINATION FOR CHANGE

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GI-25463P

Attachment A for Change to Water Right Permit G1-25463P:

Place of Use Legal Description

Legal Description for: Grandview-Northgate Water System Service Area

Created by: Whatcom County Planning & Development Services

Starting at a point in the SW 1/4 of the NW 1/4 of Section 8, Township 39 North, Range 2 East, W.M. on the westerly property line of the Burlington Northern Sante Fe Railroad right-of-way and the northerly right-of-way line of Brown Road (being also the northerly line of Ferndale City Limits), thence in a northwesterly direction along said railroad

property right-of-way line to the South line of the NE 1/4 of the NE 1/4 of Section 7. Township 39 North, Range 2 East, W.M. Thence running West along the South line of the NE 1/4 of the NE 1/4 of said Section 7 to the SE corner of the NW corner of the NW 1/4 of Section 7. Thence North along the East line of the NW 1/4 of the NW 1/4 to a point 330 feet South of the North line of the NE 1/4 of the NW 1/4 of Section 7. Thence East at right angles 180 feet, thence North parallel to said West line of the NE 1/4 of the NW 1/4 to the North Section line of Section 7. Thence running in a Westerly direction along the North section line of Section 7. Township 39 North, Range 2 East, W.M., to the Northwest corner of Section 7, also being the Southeast corner of Section 1, Township 39 North, Range 1 East, W.M. Thence continuing West along the South section line of said Section 1 to intercept with the centerline of Vista Drive, County Road No. 42 (formerly known as the Blaine Ferndale Road). Thence following the centerline of Vista Road and traveling in a Northwesterly direction across the SE 1/4 of Section 1 to intercept with the Westerly line of the NW 1/4 of the SE 1/4. Thence running in a Northerly direction along said Westerly line of the NW 1/4 of the SE 1/4 to the Northwest corner of said NW 1/4 of the SE 1/4, thence running East along the North line of said NW 1/4 of the SE 1/4 to the Northeast corner of said quarter-quarter. Thence in a Northerly direction along the West line of the East half of the NE 1/4 of said Section 1 to intercept with the centerline of Portal Way, Thence running in a Southeasterly direction along the centerline of Portal Way to intercept with the South line of the NW 1/4 of Section 6, Township 39 North, Range 2 East, W.M. Thence running at right angle to the centerline of Portal Way and in a Northeasterly direction to intercept the centerline of Interstate Highway No. 5 (I-5). Thence following the centerline of said Interstate Highway No. 5 to intercept with the South line of the NW 1/4 of the SE 1/4 of Section 6. Thence running in an Easterly direction along the said South line to the West line of the NE 1/4 of the SE 1/4 of Section 6 and proceeding in a Northerly direction along said West line to intercept with the North

line of said quarter-quarter. Thence running in an Easterly direction along said North line to the East line of Section 6, also being the West line of Section 5, Township 39 North, Range 2 East, W.M. Thence proceeding in a Southerly direction on the aforesaid West line of Section 5 to a point 300 feet, more or less, South of the North line of the SW 1/4 of the SW 1/4 of Section 5. Thence in and Easterly direction and parallel to the South line of the SW 1/4 of the SW 1/4 of Section 5 a distance of 528 feet (32 rods), more or less, thence South parallel to the West line of the SW 1/4 of the SW 1/4 to a point 825 feet (50 rods) North of the South line of the SW 1/4 of the SW 1/4. Thence running East to the East line of the SW 1/4 of the SW 1/4, thence running South along said East line to the South line of Section 5. Proceed in the same Southerly direction along the East line of the NW 1/4 of the NW 1/4 of Section 8, Township 39 North, Range 2 East, W.M., to the South line of the NW 1/4 of the NW 1/4 of said Section 8, thence running West along said South line to the centerline of Interstate Highway No. 5 (T-5). Following the centerline of the Interstate Highway in a southerly curving line to the interception of the Northwesterly right-of-way line of Portal Way and the Ferndale City Limits. Thence Northwesterly along the Northeasterly right-of-way line of Portal Way/Ferndale City Limits to the intercept with the Northerly right-of-way line of Brown Road, County Road No. 36. Thence running West along the Northern right-of-way line of Brown Road to the intercept with the Westerly right-of-way property line of the Burlington Northern Sante Fe Railroad and the Point of Beginning in Section 8, Township 39 North, Range 2 East, W.M.

STATE OF WASHINGTON

DEPARTMENT OF ECOLOGY

REPORT OF EXAMINATION FOR CHANGE

TO APPROPRIATE PUBLIC WATERS OF THE STATE OF WASHINGTON

Surface Water

cissued is accordance with the previsions of Chapter 117. Lawa of Washington for 1917, and

amendmental themeta, and the rules sad regulations of the Department of Ecology )

Ground Water

(latued is accordance with the provisions of Chaples 260, Laws of Washington for 1943, end

annomenta diereto, and the rules and regulation of the Department of Ecology )

FIJORITY DATE

APPLICATION NUMBER

PERMIT NUMBER

CERTIFICATE NUMBER

June 12, 1989

G1-25463

G1-25463P

NAME

Whatcom County PUD #1

ADDRESS (STREET)

(CITY)

(STATE)

gair CODID

1705 Trigg Rd

Ferndale

Washington

98248

PUBLIC WATERS TO BE APPROPRIATED

SOURCE

Three wells and a pond

TRIBUTARY OF (IF SURFACE WATERS)

MAXIMUM culuc FEFT PER SECOND

MAXIMUM GALLONS PER MINUTE

MAXIMUM ACRE FEET PER YEAR

116

92.8

QUANTITY TYPE OF USE PERIOD OF USE

Industrial use - Continuously

Fire Protection - As Needed

LOCATION OF DIVERSION/WITHDRAWAL

APPROXIMATE LOCATION OF DEVELOSION WITHDRAWAL

Well #1 - 1200 feet South and 1500 feet West from the NE corner of Section 7, T39N, R2E, W.M.

Wells #3 and #4 - 1200 feet South and 2400 feet West from the NE corner of Section 7, T39N, R2E, W.M.

Pond Well - 900 feet North and 600 feet East from the SW corner of Section 6, T39N, R2E, W.M.

LOCATED WITHIN (SMALLEST LEGAL SUBDIVISION)

SECTION

TOWNSHIP N

RANGE (E. OR WJWM

WRITA

COUNTY

Wells: NW 1/4, NE 1/4

7

39N

2E

01

Whatoom

Pond: SW 1/4, SW 1/4

6

39N

2E

01

Whatcom

RECORDED PLATTED PROPERTY

LOT

BLOCK

OF (GIVE NAME: OF PLAT OH ADDITION)

LEGAL DESCRIPTION OF PROPERTY ON WHICH WATER IS TO BE USED

See Attachment A' for a legal description of the new Place of Use.

6

Merpriss

Realigned Portion

Weil 1

.-

3019

BMC

Wells 3 and 4

ROAD

0.2

0

0.2

0.4

0.0

0.8

1 Miles

Explanation

WASHINGTON

R

Original Painta of Withdrawal

New Paint of and Polor of Withdrawal for 01-254610

Paed

Surface water drairage nat shawn on map including resigned portion of California Creak

Approximate Ground Watter Flow Direction

REPORT OF EXAMINATION FOR CHANGE

DESCRIPTION OF PROPOSED WORKS

A detailed description of existing and proposed withdrawal points is provided in the "Hydrogeology" section under the "Point of W

Construction" subsection. This system is identified by the Washington State Department of Health by Public Water System ID a

DEVELOPMENT SCHEDULE

SEGIN PROJECT BY THRS DATE

COMPLETE PROJECT BY nos DATE

WATER PUT TO FULL USE BY THIS DATE

Project Begun

August 18, 2031

August 18, 2031

REPORT

BACKGROUND INFORMATION

On June 12, 1989, Oxy Corporation applied to the Department of Ecology for an industrial use and fire protection water right to a

116 gpm for industrial use and fire protection. The water right application was assigned number G1-25463.

On November 15, 1990, water permit G1-25463P was issued to Oxy Corporation. The permit was approved for withdrawal of 11

92.8 acre-feet per year from three wells in the NW 1/4, NE 1/4, Section 7, T39N, R2E, W.M.

On July 8, 1993, the Department of Ecology accepted a change application from Public Utility District No. 1 of Whatcom County.

change application requested to change the place of use and add an additional point of withdrawal/diversion from a pond.

Attributes of the Original Permit

Name on Certificate:

Oxy Corporation

Priority Date:

June 12, 1989

Instantaneous Quantity:

116 gallons per minute (gpm)

Annual Quantity:

92.8 acre-feet per year (afy)

Point of Withdrawal

NW%, NE% Section 7, Township 39 North, Range 2 East W.M.

Purpose of Use:

Industrial and fire protection

Period of Use:

Continuously

Place of Use:

That portion of the NW 1/4 of the NE 1/4 of Section 7. Township 39 North, Range 2

East, of W.M., lying southwesterly of the Great Northern Railroad right-of-way. Less

roads. Together with and subject to all easements, agreements, covenants and

restrictions of record. Situate in Whatcom County, Washington.

Proposed Change

Name of Applicant:

Public Utility District No. 1 of Whatcom County

Date of Application for Change:

July 8, 1993

Added Point of Withdrawal/Diversion:

SW%, SW%, Section 6, Township 39 North, Range 2 East, W.M.

New Place of Use:

See legal description above

Notice of Publication:

October 25 and November 1, 1993

Protests:

None

Purpose of the Change Application

The purpose of this change application is to add a pond as an additional point of withdrawal/diversion for the water right, and to

place of use. The pond is located downstream of the three wells that are the original points of diversion (details in Hydrogeology

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

Washington State Department of Health Comments

Existing water rights on file for Whatcom PUD #1 Water System

Records of other water rights in the vicinity

Notes from site visit on March 22, 2005

Correspondence from Mr. Steve Boessow at the Washington Dept. of Fish and Wildlife

Topographic and local area maps

2004 Comprehensive Water System Plan for PUD No. 1 of Whatcom County

Legal description for new Place of Use for Grandview-Northgate service area provided on October 26, 2006

A letter from the PUD's counsel to Ecology written on August 11,2006 relating the history of the project

A letter from the PUD's counsel to Ecology written on August 2006 relating to extension of the original permit development sche

State Water Code

Chapters 90,03 and 90.44 RCW authorize the appropriation of public water for beneficial use and describe the process for obtai

rights including the process to amend or change existing rights. Laws specifically governing the water right permitting process a

90.03.250 through 90.03.340 and RCW 90.44.060. Changes or amendments to these rights are covered primarily under RCW 9

RCW 90.44.100.

REPORT OF EXAMINATION FOR CHANGE

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G1-25463P

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 State Department of Fish and Wildlife Comments

A copy of this change application was sent to the Department of Fish and Wildlife (WDFW) for their review. On March 30, 2005,

Department of Ecology received a letter from the WDFW stating that, "California Creek is a highly productive coho stream worth

protection and restoration. Since this proposal does not withdraw additional water above the original water right WDFW waives

this application."

Existing Rights for the Water System

There are currently seven water rights held by the PUD #1 (Table 1) as per their 2004 Water System Plan.

Table 1. Water

Rights Held by the

Whatcom County

PUD #1

Water Right

Type

Priority Date

Qi

Qa

Original Point

Number

(gpm/cfs)

(acre-feet per

of Withdrawal

year)

or Diversion

2505-A

Irrigation of 70 acres

March 5. 1953

200 gpm

140

Well

6000

Manufacturing

Dec 17, 1954

5 cfs

3622

Nooksack River

S1-00707C

Municipal/Irrigation

April 16, 1965

50 cfs

22067/5600

Nooksack River

S1-00708

Municipal

Sept 27, 1968

28 cfs

17880

Nooksack River

G1-25463P

Industrial/Fire Protection

June 12, 1989

116 gpm

92.8

Three Wells

GI-26325C

Fire Fighting

Sept 11, 1991

1350 gpm

as needed

Infiltration

Trench/Pond

Praxair exempt

Exempt Industrial

1996

Up to 5000 gpd

Up to 5.6 afy

Well

Other Water Rights in the Vicinity

In addition to those water rights held by the PUD #1 of Whatcom County, there are 15 water right certificates, zero water right pe

water right claims in Sections 6 and 7 in Township 39 North, Range 2 East and Sections I and 12 in Township 39 North, Range

are listed below. There are also approximately 105 exempt water wells in the same legal delineation. It is likely that some wells e

exempt here are actually associated with water right claims in Table 3. The true extent of the water right represented by a water

can only be determined in a county superior court in a general water right adjudication. Since this area has not been adjudicated

the water rights under claims listed in Table 3 is not known.

Certificates

Table 2. Ground and Surface Certificates in the Source Area

Certificate No.

Name on

Priority

Authorized Use

Instantaneous

Annual

POD Location

Surface/Ground

Certificate

Date

Quantity

Quantity (afy)

714 /Ground

Orchard

12/10/1945

Irrigation, Multiple

50 gpm

81

Sec. 07, Twp. 39N.,

Water Assoc

Domestic

R. 2E.

4850 / Surface

C.L. Smith

6/27/1951

Single Domestic

0,01 efs

Unspecified

Sec. 12, Twp. 39N.,

R. 1E.

1995 / Ground

L. Hansen

2/8/1952

Irrigation, 20 acres

130 gpm

40

Sec. 07, Twp. 39N.,

R. 2E

2248 / Ground

H.F.

9/17/1952

Irrigation, 51 acres

160 gpm

76.5

Sec. 06, Twp. 39N.,

Rasmussen

R. 2E

2505 / Ground

W.T. Handy

3/5/1953

Irrigation, 70 acres

200 gpm

140

Sec. 06, Twp. 39N.,

R. 2E

2184 / Ground

B. Ruffino

5/1/1953

Irrigation, 32 acres

320 gpm

64

Sec. 06, Twp. 39N.,

R. 2E

2042 / Ground

Delta Pacific

5/14/1953

Irrigation, 15 acres

66 gpm

30

Sec. 01. Twp. 39N.,

LLC

R. 1E

7495 / Surface

L.P. Ferrill

10/15/1958

Irrigation, 18 acres

0,18 cfs

36

Sec. 01, Twp. 39N.,

R. 1E

4069 / Ground

Custer Wat.

7/20/1961

Multiple Domestic

50 gpm

73

Sec. 01, Twp. 39N.,

Association

R. 1E

10859 / Surface

L.J. Pollett

7/14/1965

Irrigation, 25 acres

0.25 efs

50

Sec. 01, Twp. 39N.,

R. 1E

7329 / Ground

US Dept of

4/4/4967

Irrigation, 0.5 acres

45 gpm

8

Sec. 01, Twp. 39N.,

Interior,

Heat Exchange

R. 1E

Bonneville

Power Ad.

6813 / Ground

Custer Wat.

8/26/1968

Multiple Domestic

85 gpm

75

Sec. 01, Twp. 39N.,

Association

R. 1E

G1-20617C

J.W.

5/14/1973

Irrigation, 4 acres

35 gpm

53

Sec. 07, Twp. 39N.,

Kimbrough

R. 2E

G1-21216C

Custer Wat.

2/1/1974

Multiple Domestic

100 gpm

90

Sec. 01, Twp. 39N.,

Association

R. 1E

GI-26325C

J.I.J. Const.

9/11/1991

Fire Protection

1350 gpm

Unspecified

Sec. 06, Twp. 39N.,

Co. Inc.

R. 2E

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Permits

There are no permits in the designated sections other than the subject of this Report of Examination, GI-25463P.

Claims

Table 3. Water Right Claims in the Source Area, Arranged by Location

Water Right Claim

Long or Short Form

Name

Location

G1-161980CL

Long

Jack H. Stephesn

T. 39N, R. 01E, Sec. 01

GI-132943CL

Long

Richard R. McBride

T. 39N, R. 01E, Sec. 01

G1-131448CL

Long

Citizens Fed. Savings and Loan

T. 39N, R. 01E, Sec. 01

G1-111703CL

Long

Robert J. Brandt

T. 39N, R. 01E, Sec. 01

G1-092367CL

Long

Jack H. Stephens

T. 39N, R. DIE, Sec. 01

G1-055956CL

Long

Alfred H. Allred

T. 39N, R. 01E, Sec. 01

G1-042610CL

Long

Joe C. Ferry

T. 39N, R. 01E, Sec. 01

GI-037397CL

Long

Frank J. Spring

T. 39N, R. 01E, Sec. 01

GI-028611CL

Long

Herman F. Stephens

T. 39N, R. 01E, Sec. 01

G1-014929CL

Long

John C. Hamilton

T. 39N, R. 01E, Sec. 01

G1-012699CL

Long

Dale Hamilton

T. 39N, R. 01E, Sec. 01

G1-011918CL

Long

Ladd P. Womack

T. 39N, R. 01E, Sec. 01

G1-126818CL

Short

Andrew Pekema

T. 39N, R. 01E, Sec. 01

GI-123914CL

Short

Andrew Pekema

T. 39N, R. 01E, Sec. 01

G1-111702CL

Short

Robert J. Brandt

T. 39N, R. 01E, Sec. 01

G1-104278CL

Short

Clifford W. Thompson

T. 39N, R. 01E, Sec. 01

G1-096049CL

Short

Matt A. Wiggum

T. 39N, R. 01E, Sec. 01

GI-072537CL

Short

Norman C. Rauch

T. 39N, R. 01E, Sec. 01

GI-069991CL

Short

Raymond L. Butler

T. 39N, R. 01E, Sec. 01

GI-070004CL

Short

Frances C. Tollefson

T. 39N, R. 01E, Sec. 01

GI-060835CL

Short

Edward B. Ross

T. 39N, R. 01E, Sec. 01

G1-053788CL

Short

Walter E. Stark

T. 39N, R. 01E, Sec. 01

G1-047217CL

Short

Herman F. Stephens

T. 39N, R. 01E, Sec. 01

GI-158373CL

Long

Alan E. Johnson

T. 39N, R. 01E, Sec. 12

G1-143325CL

Long

Russell W. Sweet

T. 39N, R. 01E, Sec. 12

GI-143326CL

Long

Russell W. Sweet

T. 39N, R. 01E, Sec. 12

GI-143327CL

Long

Russell W. Sweet

T. 39N, R. 01E, Sec. 12

GI-139013CL

Long

John E. Weden

T. 39N, R. 01E, Sec. 12

GI-083327CL

Long

Lester A. Bedlington

T. 39N, R. 01E, Sec. 12

SI-158374CL

Short

Alan E. Johnson

T. 39N, R. 01E, Sec. 12

G1-145275CL

Short

George L. Menge

T. 39N, R. 01E, Sec. 12

G1-143135CL

Short

George L. Menze

T. 39N, R. 01E, Sec. 12

G1-142796CL

Short

Charles R. Burleson

T. 39N, R. 01E, Sec. 12

G1-099419CL

Short

Lawrence F. Levien

T. 39N, R. 01E, Sec. 12

G1-081349CL

Short

Walter H. Irving

T. 39N, R. 01E, Sec. 12

G1-080726CL

Short

Tom C. Pomeroy

T. 39N, R. 01E, Sec. 12

G1-066860CL

Short

Harold L. Carter

T. 39N, R. 01E, Sec. 12

G1-064377CL

Short

Clarence Schmidt

T. 39N, R. 01E, Sec. 12

G1-058718CL

Short

Charles T. Smith

T. 39N, R. 01E, Sec. 12

G1-094800CL

Long

L.H. Leighton

T. 39N, R. 02E, Sec. 06

G1-036700CL

Long

Gertrude Sager

T. 39N, R. 02E, Sec. 06

G1-029671CL

Long

Alta M. Schuyler

T. 39N, R. 02E, Sec. 06

G1-010503CL

Long

Henry F. Rasmussen

T. 39N, R. 02E, Sec. 06

G1-010504CL

Long

Henry F. Rasmussen

T. 39N, R. 02E, Sec. 06

G1-083695CL

Short

Gregory Edin

T. 39N, R. 02E, Sec. 06

G1-083204CL

Short

Ronald J. Handy

T. 39N, R. 02E, Sec. 06

G1-067865CL

Short

Harold Christensen

T. 39N, R. 02E, Sec. 06

G1-060149CL

Short

Sidney M. Peuck

T. 39N, R. 02E, Sec. 06

G1-131968CL

Long

Irene E. Kinley

T. 39N, R. 02E, Sec. 07

G1-131969CL

Long

Irene E. Kinley

T. 39N, R. 02E, Sec. 07

G1-033547CL

Long

Donald D. Schnackenberg

T. 39N, R. 02E, Sec. 07

G1-028216CL

Long

Earl L. Powell

T. 39N, R. 02E, Sec. 07

G1-028387CL

Long

J.C. Baker

T. 39N, R. 02E, Sec. 07

G1-027361CL

Long

Kimbrough and Parr

T. 39N, R. 02E, Sec. 07

G1-022494CL

Long

John L. Boyd

T. 39N, R. 02E, Sec. 07

G1-013623CL

Long

Odin P. Berger

T. 39N, R. 02E, Sec. 07

G1-145619CL

Short

Gregory L. Pike

T. 39N, R. 02E, Sec. 07

G1-142022CL

Short

Julian M. Johnston Sr.

T. 39N, R. 02F, Sec. 07

G1-138965CL

Short

John A. Razevich

T. 39N, R. 02E, Sec. 07

GI-099420CL

Short

Gwendolyn M. Levien

T. 39N, R. 02E, Sec. 07

GI-084429CL

Short

Leon Maddux

T. 39N, R. 02E, Sec. 07

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Site Visit

The site visit was conducted on March 22, 2005. Present were Mr. Tom Anderson, general manager of the Whatcom PUD #1, A

hydrogeologist with this office, and myself. We first observed the new point of withdrawal, which consists of a seven foot diamete

connected to an adjacent spring-fed pond via gravel filtration. The well is situated in a pumphouse, and there are two pumps in t

first primary pump had an indicated capability of 1760 gpm at 250 horsepower, but the applicant indicated the pump is actually c

3000 gpm. The second smaller pump (15 horsepower) is present to keep the system pressurized The pond is located next to Ca

separated from it by a large berm. There is an overflow channel, through which water flows into the creek when water in the pon

certain level.

Wells 1, 3 and 4 were also visited. See Hydrogeology section for more details about existing and new points of withdrawal.

Topographic and Local Area Maps

The Bertrand Creek USGS 1:24,000 scale topographic map, dated 1972, and maps provided by the applicant were used during

investigation.

2004 Comprehensive Water System Plan

Chapter six of the PUD's most recent water system plan contains water resource and water right data, and was used for this rep

Current Water Use

Table 4. Monthly Well Production (gal.)

1996

1997

1998

1999

2000

2001

2002

2003

2004

2005

2006

Jan

75,978

82,100

93,710

148,020

197,950

236,838

185,060

178,920

254,400

Feb

63,021

232,620

104,580

100,530

157,120

177,700

195,970

221,100

Mar

221,900

115,685

115,615

290,600

240,200

171,360

145,500

435,662

255,690

197,180

210,226

Apr

179,155

100,560

102,575

171,715

131,000

153,030

175,370

181,434

320,560

253,300

221,600

May

138,756

144,425

92,290

202,025

185,085

186,110

157,460

228,566

387,790

429,200

256,600

Jun

102,179

110,990

144,720

199,720

142,535

142,940

207,235

221,000

413,090

493,400

277,100

Jul

182,085

83,320

181,820

151,180

184,390

268,045

289,200

405,680

559,900

365,300

Aug

220,655

205,490

170,580

223,110

191,790

235,630

273,480

231,400

403,430

741,550

Sep

86,428

132,655

184,490

208,110

144,560

203,290

161,050

223,850

395,737

487,250

Oct

106,145

131,490

129,610

169,520

145,420

151,150

181,870

260,363

282,760

Nov

87,950

93,190

112,020

176,570

131,590

132,910

181,274

468,705

191,400

282,410

Dec

60,883

105,480

91,700

140,820

179,750

148,130

258,406

388,445

326,230

198,130

Total

1,204,051

1,461,049

1,459,540

2,150,690

1,736,820

1,957,490

2,364,760

2,905,100

3,722,730

4,299,970

1,806,326

Mo.

Avg.

133,783

121,754

132,685

179,224

157,893

163,124

197,063

290,510

310,228

358,331

258,047

Afy

3.7

4.5

4.5

6,6

5,3

6

7.3

8,9

11.4

13.2

Table 4. Water withdrawn by the current wells for G1-25463P from the time the right was acquired by the PUD in March 1996 th

July 2006

HYDROGEOLOGY

The following information is taken from the Hydrogeologic Report for Change Application G1-25463 by Andrew Dunn, staff hydrogeologist. Table and figure numbers herein refer to those in this section only:

Background

On July 8, 1993, the Department of Ecology received a change application submitted by the Public Utility District No. / of Whatco County to change ground water permit GI-25463P. This water right change application requests to add a pond as an additional p withdrawal The proposed pond is located in the SW 1/4, SW % Section 6, Township 39N, Range 2E, W.M., Whatcom County, Washington, which is in WRIA I.

On March 22, 2005, Paul Fabiniak (Ecology report writer) and I (Ecology hydrogeologist) performed a site visit to the area during which we met with Tom Anderson, Manager of the Public Utility District No. / of Whatcom County.

Geographic Setting of the Grandview Area, Whatcom County, Washington

The site is located at an elevation of approximately 60 to 110 feet above sea level in the headwaters of the California Creek wat The site is located on the base of the northeastern edge of the Mountain View Upland The highest point on the upland, located t southwest of the site, is approximately 360 feet above sea level.

Point of Withdrawal/Diversion Construction

Table / describes the wells and the structure at the pond that has been used or is proposed to be used to withdraw water under right. The location of all wells and the pond can be seen in the figure on page one of this ROE.

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Table 1. Well Construction Information

Well

Casing

Approx. Top of

Depth

Depth of

Elevation

Depth to Water

Approx. Elevation

Date of Water

Diam.

Casing (TOC)

of Well

Screened

of Screened

below TOC

of Potentiometric

Level

(in)

Elevation

(ii)

Interval

Interval

(ii)

Surface

Measurement

(ii)

(ii)

(ii)

(1)

1

6

105

108

98 to 108

7 to -3

48

57

9/19/1988

AGK-350

3

6

110

157

152 to 157

-42 to 47

48.25

61.75

5/23/1989

4

16

110

148

112 to 144

-2 to -34

42.25

67.75

8/9/1988

39

71

4/29/1991

Pond

84

65

2

?

?

2 (est)

63 (est)

3/22/2005

Well / (Unique well ID AGK-350) is used to provide potable water to the buildings within the industrial park for domestic and indu

uses. The water is pumped from the well, treated with chlorine, piped to a 30,000 gallon storage tank, and then routed through s

pressure tanks before being released into the distribution system. Tom Anderson indicated that the chlorine treatment is require

the long residence time in the storage tank. Well I was approved as a point of withdrawal in the original report of examination an

gpm and 92.8 acre-feet per year was approved for industrial use. This well has a water meter installed that read 21,777,000 gall

the date of the site visit. On the power box inside the pump house it documented that the pumping rate for this well had been me

93.6 gpm on both March 30, 2001 and April 6. 2004.

Wells 3 and 4 are approximately 5 feet apart and are located within the same pump house. Well 3 is used to keep the fire suppr

system "charged" at the correct operating pressure. Well 4 will provide the system with the rate of flow necessary when actively

a fire in the industrial park, if they should need it. The original report of examination for GI-25463 (10/3/1990) indicated that Well

could pump at a rate of approximately 2100 gpm. Wells 3 and 4 were approved as points of withdrawal in the original report of

examination along with their use for fire protection. However, the only limit given on the water right document was for the Industr

use. In case of a fire, any rate or quantity of water can be used to put the fire out During the site visit we could not measure the d

water, but someone had documented the depth to static water level (a) 39 feet below the top of the casing on April 29, 1991, by

on the face of the pressure gage. Neither Well 3 nor Well 4 has a water meter installed

Tom Anderson expressed Public Utility District No. / of Whatcom County's desire to have the pond approved as a point of withdr

under their water right. Their thinking was that if an Industrial user did not require potable water for their process, then the pond

could be used out of the fire protection pipes for that purpose. This would reduce the demand on the potable water system and v

reduce the amount of chlorine that they need to use.

The point of withdrawal/diversion at the pond represents the gray area between surface water and ground water rights. One grou

water certificate (GI-26325C) already exists for the pond at the same location as the proposed withdrawal/diversion, When the p

originally excavated I do not believe that it was directly connected to California Creek However, a man-made change to the locat

California Creek and tributary streams now directly connects the pond to the stream network The structure that the pumps are

completed in is actually an 84 inch diameter concrete easing constructed at the edge of the pond Gravel was imported and place

around the casing to filter the water. So, water moves from the pond through the gravel filter and into the large diameter casing b

being pumped into the fire protection or proposed water distribution system. Hydrogeologically the withdrawal/diversion structure

similar to a shallow well being drilled next to a surface water body.

California Creek Surface Water Basin

The California Creek watershed is approximately 22.8 square miles in size. California Creek itself has a total length of approxima

miles (Division of Water Resources, 1960). California Creek drains to the northwest into the saltwater of Drayton Harbor, just sou

the City of Blaine and the Canadian border.

California Creek is inhabited by coho salmon and resident game and non-game fish (Boessow, 2005).

The minimum flow documented at the gage site prior to 1960 was 0.33 ofs measured on August 19, 1958. For the 1954 irrigatio

the lowest flow measured was 0.8 ofs (Division of Water Resources, 1960).

The Department of Ecology has established a manual staff gage for California Creek just downstream of Valley View Road (SE

Section 27, T40N, RIE, W.M.). Unfortunately, a rating curve has not been developed for this site, due to vegetation growth in the

channel, so the stage height can not accurately be correlated to a stream discharge. The most recent stage measured for this si

3.96 feet on March I, 2005. The drainage area feeding the creek upstream of this stream gage is approximately 11 square miles

and the elevation of the stream gage is approximately 15 feet above sea level (Division of Water Resources, 1960). Since the ne

collected data does not convert the stage to a discharge, I am unsure how the current measurements compare to the older 1950

data.

From the assembled data it appears that the lowest flows in California Creek typically occur during August and the highest flows

during the winter months.

The pond that is proposed as a point of withdrawal is currently connected to California Creek A spring-fed stream flows to the no

of the Mountain View Upland before entering the pond at its southeastern end The pond has an overflow structure to the northw

the proposed withdrawal/diversion structure that allows water from the pond to flow directly into California Creek At the time of th

visit a beaver had constructed a dam at the overflow structure, which raised the water level in the pond by approximately one foo

making the pond surface elevation approximately 3 to 4 feet higher than the level of California Creek adjacent to the pond. It is u

if the pond discharges directly to the creek all year round or if the water level in the pond drops in the summer and eliminates su

outflow. The close proximity of the pond and California Creek combined with the higher water level elevation of the pond sugges

in addition to any surface water flow, ground water seepage from the pond also discharges into the creek

All of the original points of withdrawal and the proposed pond are all located within the California Creek subbasin as defined by t

WRIA / watershed planning group (2001) (Figure 2).

The two geographic settings described above also have different geologic features that influence the ground water hydrology. Th

different settings are the Mountain View Upland and the Custer Trough. The Custer Trough contains a thin unconfined aquifer co

of sand that was deposited as distal glacial outwash by the glacier that advanced and retreated during the Sumas Stade (Cax an

1999). The Sumas outwash overlies a very thick (several hundred feet) sequence of glaciomarine drift or marine silt and clay do

deposits. Most wells in the Custer Trough tap ground water in the Sumas outwash aquifer.

Table 2. Geology of the Grandview Area

Unit Name

Description

Age

Typical Thickness

Sumas Outwash

Dominantly sand with little gravel. Occurs in the

10,000 to 11,000 years old

0 to 35 feet

Custer Trough below an elevation of approximately

80 feet. Unconfined aquifer. Most common aquifer

tapped in the Custer Trough in this area

Everson

Dominantly silt and clay with gravel and sand

18,000 to 11,000 years old

40 to several hundred feet

Glaciomarine

Occasionally clamshells. Primarily aquitard

Drift and Vashon

Glacial Till

Vashon Advance

Sand and Gravel. Unconfined to confined aquifer.

18,000 to 13,500 years old

100 feet

Outwash (or

Most common aquifer tapped on the Mountain View

Deming Sand

Upland in this area

per Didricksen,

1997)

Non-glacial unit

Layers of sand, silt, and some gravel. Primarily

> 18,000 years old

Several hundred feet

aquitard

The Mountain View Upland consists of glacial and non-glacially derived deposits as described in Table 2. Most wells in this part

upland, including the three Public Utility District No. / of Whatcom County, withdraw water from the unconfined to confined sand

gravel aquifer / have referred to as the Vashon Advance Outwash and Didricksen (1997) referred to as the Deming Sand.

Didricksen (1997) created three cross sections that run through the area containing all of the wells and the pond relating to this c

application. The cross sections of interest are A-4', B-B: and F-F* (Appendix B). Didricksen identifies that the geologic units cont

on the Mountain View Upland Portion of the site consists primarily of Bellingham Drift (unit Qb) (glaciomarine drift) overlying Den

Sand (unit Qd) (fluvial deposit). She also shows a thin layer of a unit she calls "Sand & Gravel over Drift" (unit Qbg) which occurs

above the Bellingham Drift on the lower elevations of the Mountain View Upland Within the Custer Trough, Didricksen identifies

the thin "Outwash Sand and Gravel" (unit Qso) is found at the ground surface and is underlain by the Bellingham Drift and possi

Deming Sand

Didricksen's Deming Sand unit is what I have referred to as the Vashon Advance Outwash Either way the name of the unit is les

important than its composition, which is defined above and can be seen in the well logs and cross sections in Appendices A thro

Aquifer Recharge

The aquifer(s) tapped by all of the original points of withdrawal are recharged by infiltration of water on the Mountain View Uplan

Ground Water Flow Directions

Ground water generally flows from higher areas of the Mountain View Upland toward the lower-lying area that contains Californi

Dakota Creeks and is referred to as the Custer Trough (Figure 1). Ground water captured by the original wells under this water r

would naturally discharge to California Creek if it had not been captured Ground water flow is not fully contained within one aqui

but instead moves between different aquifers and through aquitards.

The pond is located slightly downstream from where the ground water naturally flowing past the original points of withdrawal wou

likely discharge to the stream network

Ground Water Levels over Time

Using the limited water level information that exists for the original points of withdrawal, it appears that the ground water levels h

not declined or increased significantly since the wells were drilled (Table 1).

Aquifer Testing

No aquifer testing was performed or deemed necessary for this change application.

Conclusions for Water Right Hydrogeologic and Hydrologic Assessment

Since this report is being prepared for a change to an existing ground water right, the hydrogeologic questions posed in RCW 90

and RCW 90.44.100 that must be answered by the Department of Ecology are as follows:

1. Is the proposed point of diversion and original points of withdrawal within the same source of water?

2.

Will approval of this water right impair any existing water right holders?

3. Will approval of this water right change be detrimental to the public welfare?

Same Source of Water

The original wells and the proposed pond are considered to be water within the same source for the following reasons:

I. The wells and pond are all located within the California Creek subbasin as defined by the WRIA / watershed planning group.

2. The wells and pond are located in relatively close proximity, within 4250 feet of each other.

3.

The water level elevation of the pond is similar to the static water level elevation measured in the wells.

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4.

Ground water captured by the original wells would naturally discharge to California Creek Water captured at the proposed pond would naturally discharge to California Creek, either as surface water or as ground water seepage.

Impairment Analysis

Allowing the water right holder to pump water from the edge of the pond as opposed to pumping entirely from the three existing will not impair any water right holders for the following reasons:

I.

Pulling some water from the pond will actually shift some of the streamflow reduction of California Creek a little downstream compared to pumping from the existing wells.

2.

No water right holder, other than the Public Utility District No. / of Whatcom County relies on the pond as the source of water from exercise of their water rights.

3.

The nearest certificated downstream appropriator diverting surface water from California Creek is located over 7200 feet downstream.

4.

The nearest documented ground water certificate is located approximately 2000 feet from the pond and no other water wells were seen in close proximity to the pond during the site visit.

Public Interest

No detriment to the public interest could be identified during this hydrogeologic investigation that would result from approval of th water right application.

Recommendations

Based on the conclusions of this report, feel that hydrogeologically this application can be approved However, if there are other factors that require the application to be denied, it must be denied regardless of the hydrogeologic conclusions.

REPORT OF EXAMINATION FINDINGS

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

The following tests must be addressed when processing a request for a change in point of withdrawal and place of use:

Is water available at the new point of withdrawal/diversion?

Will the change create an enlargement of the original right?

Does the additional point of withdrawal/diversion tap the same body of public ground water as the original point(s) of withdrawal

Will the change cause impairment to other existing rights?

Will the public interest be impaired?

What are the protestors concerns?

Water Availability

Based upon observations of the capabilities of the new well and characteristics of the adjacent pond during the field exam, in co with the hydrogeologic assessment made above, it can be concluded that water is available at the new point of withdrawal/divers the specified quantities.

Potential for Enlargement

This investigation has determined that Groundwater Permit G1-25463P is in good standing. Adding the additional point of withdrawal/diversion will not result in an enlargement of the right because no additional water beyond that approved for the perm be withdrawn from any combination of the new and original sources. Therefore, approval of this change will not result in the enlargement of groundwater permit G1-25463P.

Same Body of Public Ground Water

Based upon the information and analysis provided in the hydrogeologic assessment above, it can be concluded that the new poi withdrawal/diversion is in the same body of public groundwater as the original points of withdrawal.

Impairment of Other Rights

As stated in the hydrogeologic assessment above, no impairment of other rights will occur upon approval of this change.

Public Interest

No detriment to the public interest could be identified during the investigation of this application for change. The change is not sp

nature, as it is occurring as part of an ongoing project.

Protests

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

DISCUSSION

Based upon the detailed history provided by the applicant, the development of the permit has been pursued with due diligence, a

progress is being made in fulfilling the original intent of the project. This detailed history is provided in a letter from counsel for th

dated August 11, 2006. It contains a detailed account of development of the Grandview Light Industrial Zone and surrounding pr

1989 to August of 2006. From the outset, the intention of the original applicant, Oxy Corporation, was to connect their water syst

neighboring Jantzen system and allow the Whatcom PUD #1 to acquire and run the project as a water district. This information s



basis for determining that the place of use expansion is not an enlargement of the intent of the project. This letter will be perman

in the file for future reference.

RECOMMENDATIONS

I recommend the request for change to G1-25463P 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 amo

water within the specified limit that is beneficially used and required.

Metering Provision:

An approved measuring device shall be installed and maintained for each diversion/withdrawal of the sources 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 weekly. The maximum annual instantaneous rate of diversion/withdrawal and the annual total

volume shall be submitted to Ecology by January 31st of the following year.

The following information shall be included with each submittal of water use data: owner, contact name if different, mailing

address, daytime phone number, Permit/Certificate/Claim No., source name, volume including units, Department of Health

WFI water system number and source number(s) (for public drinking water systems), and well tag number (for ground water withdrawals). In the future, Ecology may require additional parameters to be reported or more frequent reporting. Ecology prefers web based data entry, but does accept hard copies. Ecology will provide forms and electronic data entry information.

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 record of water use that are kept to meet the above conditions, and to inspect at reasonable times any measuring device used to meet above conditions.

Proof of Appropriation:

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

Water Level Monitoring:

In order to protect the resource, static water level (SWL), represented by depth to water for existing and replacement wells shall be measured at least once each month. Measurements shall be taken after the pump has been shut off a reasonable time to allo water level to return to normal. Ecology's Water Resources program (NWRO) shall be notified if a below normal seasonal drop is measured in SWL, otherwise this data shall be maintained and be made available to Ecology upon request.

Well Decommissioning

Any approved points of withdrawal under this water right that are no longer planned to be used shall be properly decommissione within a reasonable amount of time.

CONCLUSIONS

In accordance with chapters 90.03 and 90.44 RCW, I conclude that ground water permit G1-25463P is in good standing and is e

change. I have determined that the change to GI-25463P will not enlarge the permit and the water use will be beneficial. Approv

change request will not cause impairment of existing rights or be detrimental to the public interest, Based on these conclusions,

request should be approved subject to existing rights and the above-indicated provisions and a superseding permit should be iss

Pl Fahil

REPORT BY:

DATE:

3/28/07

Paul Fabiniak

REPORT OF EXAMINATION FOR CHANGE

9

GI-25463P

Attachment A for Change to Water Right Permit G1-25463P:

Place of Use Legal Description

Legal Description for: Grandview-Northgate Water System Service Area

Created by: Whatcom County Planning & Development Services

Starting at a point in the SW 1/4 of the NW 1/4 of Section 8, Township 39 North, Range 2 East, W.M. on the westerly property line of the Burlington Northern Sante Fe Railroad right-of-way and the northerly right-of-way line of Brown Road (being also the northerly line of Ferndale City Limits), thence in a northwesterly direction along said railroad property right-of-way line to the South line of the NE 1/4 of the NE 1/4 of Section 7. Township 39 North, Range 2 East, W.M. Thence running West along the South line of the NE 1/4 of the NE 1/4 of said Section 7 to the SE corner of the NW corner of the NW 1/4 of Section 7. Thence North along the East line of the NW 1/4 of the NW 1/4 to a point 330 feet South of the North line of the NE 1/4 of the NW 1/4 of Section 7. Thence East at right angles 180 feet, thence North parallel to said West line of the NE 1/4 of the NW 1/4 to the North Section line of Section 7. Thence running in a Westerly direction along the North

section line of Section 7. Township 39 North, Range 2 East, W.M., to the Northwest corner of Section 7, also being the Southeast corner of Section 1, Township 39 North, Range 1 East, W.M. Thence continuing West along the South section line of said Section 1 to intercept with the centerline of Vista Drive, County Road No. 42 (formerly known as the Blaine Ferndale Road). Thence following the centerline of Vista Road and traveling in a Northwesterly direction across the SE 1/4 of Section 1 to intercept with the Westerly line of the NW 1/4 of the SE 1/4. Thence running in a Northerly direction along said Westerly line of the NW 1/4 of the SE 1/4 to the Northwest corner of said NW 1/4 of the SE 1/4, thence running East along the North line of said NW 1/4 of the SE 1/4 to the Northeast corner of said quarter-quarter. Thence in a Northerly direction along the West line of the East half of the NE 1/4 of said Section 1 to intercept with the centerline of Portal Way, Thence running in a Southeasterly direction along the centerline of Portal Way to intercept with the South line of the NW 1/4 of Section 6, Township 39 North, Range 2 East, W.M. Thence running at right angle to the centerline of Portal Way and in a Northeasterly direction to intercept the centerline of Interstate Highway No. 5 (I-5). Thence following the centerline of said Interstate Highway No. 5 to intercept with the South line of the NW 1/4 of the SE 1/4 of Section 6. Thence running in an Easterly direction along the said South line to the West line of the NE 1/4 of the SE 1/4 of Section 6 and proceeding in a Northerly direction along said West line to intercept with the North line of said quarter-quarter. Thence running in an Easterly direction along said North line to the East line of Section 6, also being the West line of Section 5, Township 39 North, Range 2 East, W.M. Thence proceeding in a Southerly direction on the aforesaid West line of Section 5 to a point 300 feet, more or less, South of the North line of the SW 1/4 of the SW 1/4 of Section 5. Thence in and Easterly direction and parallel to the South line of the SW 1/4 of the SW 1/4 of Section 5 a distance of 528 feet (32 rods), more or less, thence South parallel to the West line of the SW 1/4 of the SW 1/4 to a point 825 feet (50 rods)

North of the South line of the SW 1/4 of the SW 1/4. Thence running East to the East line of the SW 1/4 of the SW 1/4, thence running South along said East line to the South line of Section 5. Proceed in the same Southerly direction along the East line of the NW 1/4 of the NW 1/4 of Section 8, Township 39 North, Range 2 East, W.M., to the South line of the NW 1/4 of the NW 1/4 of said Section 8, thence running West along said South line to the centerline of Interstate Highway No. 5 (T-5). Following the centerline of the Interstate Highway in a southerly curving line to the interception of the Northwesterly right-of-way line of Portal Way and the Ferndale City Limits. Thence Northwesterly along the Northeasterly right-of-way line of Portal Way/Ferndale City Limits to the intercept with the Northerly right-of-way line of Brown Road, County Road No. 36. Thence running West along the Northern right-of-way line of Brown Road to the intercept with the Westerly right-of-way property line of the Burlington Northern Sante Fe Railroad and the Point of Beginning in Section 8, Township 39 North, Range 2 East, W.M.