

## **Memorandum**

Date: February 20, 2003  
To: Sheri Carroll, SWRO Water Resources  
From: Deb Hunemuller, SWRO Water Resources  
Subject: Showing of Compliance – G2-20883C

The attached Affidavit and supporting documents from the City of Lacey is for Well 24 to replace Well 18B under Ground Water Certificate G2-20883C. Well 18B has been decommissioned. This information should be microfiched and added to the original file.



STATE OF WASHINGTON

DEPARTMENT OF ECOLOGY

P.O. Box 47775 • Olympia, Washington 98504-7775 • (360) 407-6300

February 20, 2003

Peter Brooks  
Water Resources Manager  
City of Lacey  
P O Box 3400  
Lacey WA 98509-3400

Dear Mr. Brooks:

Re: Ground Water Certificate G2-20883C, City of Lacey

On January 28, 2003, an affidavit was filed with our office in accordance with Water Resources Program Policy POL-1260 regarding the addition or replacement of wells.

This affidavit is for Well 24 that was constructed for use under Ground Water Certificate G2-20883C. Well 24 replaces Well 18B, which was decommissioned in accordance with Chapter 18.104 RCW and 173-162 WAC.

We will make the affidavit attesting to the compliance with RCW 90.44.100(3) a part of our public record associated with Water Right Certificate G2-20883C. We will not issue a superseding document. In accordance with our policy, we have not evaluated the validity of the information supplied by the certificate holder or the consultants, nor have we evaluated the historical development under the asserted right.

Please contact me at (360) 407-0290 if you have any questions.

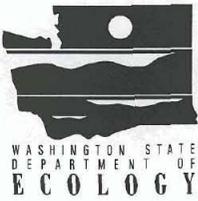
Sincerely,

Debra Hunemuller  
Water Resources Program

DH:th

cc: Craig Downs, DOH Drinking Water Operations





DEPARTMENT OF ECOLOGY

RECEIVED
DEPT. OF ECOLOGY/SWRD

Showing of Compliance with RCW 90.44.100(3) A11 :10

Water Right Certificate or Permit Number: G2-20883C

Parcel tax identification number: 46780004600

Landowner(s) name: City of Lacey

Part of complying with RCW 90.44.100(3) is for the project proponent to notify the Department of Ecology (Ecology) that the statutory criteria of RCW 90.44.100(3) have been satisfied. Please attach to this document the water well report for the additional or replacement well and any additional information you have to support your affidavit.

Affidavit:

I, Peter C. Brooks, do certify that I caused the well described in the attached water well report to be drilled as an additional or replacement well(s) for use under Water Right Number G2-20883C. This notice and attached documents describe and support my assertion that the replacement or additional well(s) complies with RCW 90.44.100(3) (a-g) and RCW 90.44.100(4):

- a. The well is an additional or replacement well(s) that will tap the same body of public ground water as the original well;
b. If a replacement well is constructed, the use of the original well(s) shall be discontinued and the original well(s) shall be properly decommissioned;
c. The combined withdrawal of water from the additional or replacement well(s) and the original well authorized by the water right certificate does not enlarge the water right conveyed by the original water right certificate to the extent the certificate has been developed (perfected) and maintained by use of water;
d. The construction and use of the additional or replacement well(s) does not interfere with or impair water rights with an earlier priority date;
e. The additional or replacement well(s) is located no closer than the original well to a well or surface water body it might interfere with;
f. A specified manner of construction for the additional or replacement well(s) has been complied with, if required, and the new well was constructed in compliance with chapter 18.104 RCW and chapter 173-160 WAC;
g. The additional or replacement well(s) is located within the area described as the point of withdrawal in the public notice published for the original application for water right, or the most current legal description published for the right. Both the original well and the additional or replacement well(s) are located in Evergreen Estates #4 Lot 46 (legal description).

Therefore the well is in compliance with the requirements for a statutorily granted amendment to the water right permit or certificate.

I understand the acceptance of this affidavit, and any attachments, by the Department of Ecology shall not be construed as affirming the validity of any water right permit or certificate. The responsibility to comply with RCW 90.44.100(3) is with the water right permit or certificate holder asserting an amendment pursuant to RCW 90.44.100(3).

Peter Brooks  
Name

1/24/03  
Date

**Acknowledgement:**

State of Washington  
County of Thurston

I certify that I know or have satisfactory evidence that Peter C. Brooks is the person who appeared before me, and said person acknowledged that (he/she) signed this affidavit and acknowledged it to be (his/her) free and voluntary act for the uses and purposes mentioned in the affidavit.

Dated: 1-24-03



Charlotte M. Taylor  
(Signature)  
Olympia  
Residing in  
Lacey City Clerk  
Title  
My appointment expires: 12-22-05

If you have any questions please contact the Water Resources Section of the closest regional office. Please submit copies of new well logs and decommissioned well logs along with this completed and notarized form to the nearest regional office.

**Northwest Regional Office**  
3190 – 160th Avenue SE  
Bellevue, WA 98008-5452  
(425) 649-7000; TDD (425) 649-4259

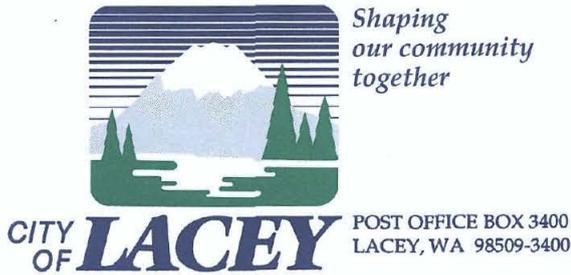
**Southwest Regional Office**  
P.O. Box 47775  
Olympia, WA 98504-7775  
(360) 407-6300; TDD (360) 407-6306

**Eastern Regional Office**  
N. 4601 Monroe, Suite 202  
Spokane, WA 99205-1295  
(509) 456-2926; TDD (509) 458-2055

**Central Regional Office**  
15 W. Yakima Ave., Suite 200  
Yakima, WA 98902-3452  
(509) 575-2597; TDD (509) 454-7673

**Vancouver Field Office**  
2108 Grand Boulevard  
Vancouver, WA 98661-4622  
(360) 690-7171; TDD (360) 690-7147

**Nooksack Field Office**  
1204 Railroad Ave., Suite 200  
Bellingham, WA 98225  
(360) 738-6250; TDD (425) 649-4259



CITY COUNCIL

GRAEME SACKRISON  
Mayor  
VIRGIL CLARKSON  
Deputy Mayor  
ANN BURGMAN  
JOHN DARBY  
MARY DEAN  
NANCY J. PETERSON  
LORRAINE WILSON

RECEIVED  
DEPT. OF ECOLOGY/SWRO

'03 JAN 28 AM 11:09

CITY MANAGER  
GREG J. CUOIO

January 27, 2003

Washington Department of Ecology  
Southwest Regional Office  
P.O. Box 47775  
Olympia, WA 98504-7775

**RE: Replacement Well under Groundwater Certificate G2-20883C**

Water Resources Staff:

Please find enclosed a signed affidavit and well construction report for a replacement well drilled for use under this water right. Copies of the well logs for the old and replacement wells are in Appendix B of the enclosed construction report.

We are in the process of completing the construction of the well, and are awaiting source approval from the Department of Health. We are hoping to put the new well online this spring, so we would greatly appreciate if this certificate could be amended within the next couple of months.

Please feel free to contact me at 438-2675 if you have questions regarding this certificate.

Sincerely,

Peter C. Brooks, P.E.  
Water Resources Manager



TDD Relay  
1-800-833-6388

City Council  
(360) 491-3214

City Manager  
(360) 491-3214

City Attorney  
(360) 491-1802

Community Development  
(360) 491-5642

Finance  
(360) 491-3212

Parks & Recreation  
(360) 491-0857

Police  
(360) 459-4333

Public Works  
(360) 491-5600

Fax #  
(360) 438-2669



STATE OF WASHINGTON  
DEPARTMENT OF ECOLOGY

CERTIFICATE OF WATER RIGHT

- Surface Water* Issued in accordance with the provisions of Chapter 90A, Title 90, Revised Code of Washington, and amendments thereto, and the rules and regulations of the Department of Ecology.
- Ground Water* Issued in accordance with the provisions of Chapter 90A, Title 90, Revised Code of Washington, and amendments thereto, and the rules and regulations of the Department of Ecology.

CERTIFICATE NUMBER <b>G2-20883C</b>	PERMIT NUMBER <b>G2-20883P</b>	APPLICATION NUMBER <b>G2-20883</b>	PRIORITY DATE <b>March 20, 1973</b>
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NAME  
**CITY OF LACEY**

ADDRESS (STREET) CITY STATE ZIP CODE  
**PO Drawer B Lacey Washington 98503**

*This is to certify that the herein named applicant has made proof to the satisfaction of the Department of Ecology of a right to the use of the public waters of the State of Washington as herein defined, and under and specifically subject to the provisions contained in the Permit issued by the Department of Ecology, and that said right to the use of said waters has been perfected in accordance with the laws of the State of Washington, and is hereby confirmed by the Department of Ecology and entered of record as shown*

**PUBLIC WATER TO BE APPROPRIATED**

SOURCE  
**2 wells**

TRIBUTARY OF (IF SURFACE WATERS)

MAXIMUM CUBIC FEET PER SECOND	MAXIMUM GALLONS PER MINUTE <b>700</b>	MAXIMUM ACRE-FEET PER YEAR <b>374</b>
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QUANTITY, TYPE OF USE, PERIOD OF USE  
**374 acre-feet per year municipal supply continuously**

**LOCATION OF DIVERSION/WITHDRAWAL**

APPROXIMATE LOCATION OF DIVERSION WITHDRAWAL  
**Well No. 18A: 1250 feet east and 300 feet south from the northwest corner of Sec. 25;**  
**Well No. 18B: 400 feet west and 800 feet south from the north quarter corner of Sec. 25**

LOCATED WITHIN (SMALLEST LEGAL SUBDIVISION): <b>N 1/4 Sec 25</b>	SECTION <b>25</b>	TOWNSHIP N. <b>18</b>	RANGE, (E. OR W.) W.M. <b>1 W</b>	W.R.L.A. <b>13</b>	COUNTY <b>Thurston</b>
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**RECORDED PLATTED PROPERTY**

LOT	BLOCK	OF (GIVE NAME OF PLAT OR ADDITION)
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**LEGAL DESCRIPTION OF PROPERTY WATER TO BE USED ON**

**Area served by City of Lacey.**

PROVISIONS

The total annual quantity pumped under this permit and all existing rights and/or applications in the integrated system does not exceed 4717 acre-feet.

The right to the use of the water aforesaid hereby confirmed is restricted to the lands or place of use herein described, except as provided in RCW 90.03.380, 90.03.390, and 90.44.020.

This certificate of water right is specifically subject to relinquishment for nonuse of water as provided in RCW 90.14.180.

Given under my hand and the seal of this office at Olympia, Washington, this 19th day of December, 19 75.

JOHN A. BIGGS, Director  
Department of Ecology

ENGINEERING DATA  
OK P

by E. W. Asselstine  
E. W. Asselstine, Regional Manager

FOR COUNTY USE ONLY

DEPARTMENT OF ECOLOGY

REPORT OF EXAMINATION  
TO APPROPRIATE PUBLIC WATERS OF THE STATE OF WASHINGTON

SURFACE WATER       GROUND WATER

APPLICATION NO. <b>G2-20883</b>	PRIORITY DATE OF APPLICATION <b>March 20, 1973</b>
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NAME <b>CITY OF LACEY</b>			
ADDRESS (STREET) <b>PO Drawer B</b>	(CITY) <b>Lacey</b>	(STATE) <b>Washington</b>	(ZIP CODE) <b>98503</b>

PUBLIC WATERS TO BE APPROPRIATED

SOURCE <b>2 wells</b>		
TRIBUTARY OF (IF SURFACE WATERS)		
MAXIMUM CUBIC FEET PER SECOND	MAXIMUM GALLONS PER MINUTE <b>700</b>	MAXIMUM ACRE-FEET PER YEAR <b>374</b>
QUANTITY, TYPE OF USE, PERIOD OF USE <b>374 acre-feet per year</b>	<b>municipal supply</b>	<b>continuously</b>

LOCATION OF DIVERSION/WITHDRAWAL

APPROXIMATE LOCATION OF DIVERSION/WITHDRAWAL  
**Well No. 18A: 1250 feet east and 300 feet south from the northwest corner of Sec. 25;**  
**Well No. 18B: 400 feet west and 800 feet south from the north quarter corner of Sec. 25**

LOCATED WITHIN (SMALLEST LEGAL SUBDIVISION) <b>W-2826</b>	SECTION <b>25</b>	TOWNSHIP N. <b>18</b>	RANGE, (E. OR W.) W.M. <b>1 W</b>	W.R.T.A. <b>13</b>	COUNTY <b>Thurston</b>
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RECORDED PLATTED PROPERTY

LOT	BLOCK	OF (GIVE NAME OF PLAT OR ADDITION)
LEGAL DESCRIPTION OF PROPERTY WATER TO BE USED ON		

Area served by City of Lacey.

**DESCRIPTION OF PROPOSED WORKS**

Well No. 18A: 8" x 92'  
 Well No. 18B: 8" x 110'

**DEVELOPMENT SCHEDULE**

BEGINNING DATE	COMPLETION DATE	DATE COMPLETE APPLICATION OF WATER TO BE MADE
Started	Completed	February 1, 1976

**PROVISIONS AND RECOMMENDATIONS**

Use of the waters to be appropriated under this application will be for a public water supply. State Board of Health rules require every owner of a public water supply to obtain written approval from the Assistant Secretary, Health Services Division prior to any new construction or alterations of a public water supply.

The Lacey Water Department is presently serving some 12,500 people with water through its multiple-well water system.

This consists of the integrated Lacey system and three satellite systems. Well No. 8 serving East Tanglewilde, Wells 18A and 18B serving Evergreen Shores, and Well 19A and 19C serving Nisqually Ranchette Estates are the Satellite systems.

Current water system plans call for integrating the East Tanglewilde and Evergreen Shores systems into the Lacey system, leaving only the Nisqually Valley wells outside the main system.

According to January 2, 1974 figures by the Department of Social and Health Services, Lacey had 3067 metered services and eight unmetered services and serving a maximum 12,500 population.

Average daily water use amounted to approximately 100 gallons per person. Peak use was at 200 gallons per day per person. The average daily requirement is 1.25 million gallons per day, or, 1400 acre-feet per year.

Lacey and its environs are experiencing the fastest growth rate in the State of Washington. With present growth continuing at or near the present rate, by 1990 the water department must be prepared to serve a population of about 26,000.

In determining the water needs for Lacey to the year 1990, the annual quantity would be a summation of the average daily requirements. At a population of 26,000 and based on an average daily use of 100 gallons per day per capita, this annual quantity would be 2.6 million gallons per day or 2912 acre-feet per year.

Existing rights already total 4717 acre-feet or an excess of approximately 1605 acre-feet per year; so additional water to satisfy annual requirements is not needed.

The Nisqually Satellite system operates separately from the main Lacey system under Ground Water Permit No. G2-20104P and application No. G2-20882 and are, therefore, not considered in the overall Lacey system. They operate a total of 750 gallons per minute and 270 acre-feet annually, and are for the Nisqually Valley area.

City of Lacey  
G2-20883  
Page 3

Within the proposed integrated system, water rights presently held or being assigned to the City of Lacey are as follows:

Well No.	Certificate No.	Gallons per Minute	Acres-foot
1	4578-A	215	344
2	5688-A	600	960
3	7450-A	1126	1650
4	55-A	900	260
6-A	3654-A	283	453
6-F	3823-A	300	480
8	6320-A	150	108
13	1288-A	55	30
14-A	1777-A	300	432
		<u>3929</u>	<u>4717</u>

Applications for additional water are being applied for as follows:

Well No.	Application No.	Gallons per Minute	Acres-foot Supplemental
1	G2-20880	450	240
4	G2-23191	600	320
5	G2-20879	300	160
13	G2-20878	200	107
18A & 18B	G2-20883	700	374
		<u>2250</u>	<u>1201</u>

The annual rate is based on 8 hours per day pumping. Permit No. 9951 which is for 1200 gallons per minute and 1440 acre-feet will be extended for 5 years, and the final certificate will be issued based on the actual amount withdrawn.

On the basis of these facts, Application No. G2-20883 may be approved for 700 gallons per minute as an additional supply to increase the instantaneous pumping rate to meet expected 1990 requirements, and 374 acre-feet as supplementary to existing rights; provided that the annual quantity pumped under this application and all existing rights and/or applications in the integrated system does not exceed 4717 acre-feet.

Signed at Olympia, Washington,  
this 19th day of February, 1975.

  
WALTER BERGSTROM, Resources Management  
Department of Ecology

**RECEIVED**  
**WATER WELL REPORT**  
STATE OF WASHINGTON  
JAN 18 2003

Notice of Intent W166611  
UNIQUE WELL I.D.# AGP-478  
Water Right Permit No. G2-20883C

125712

Washington State

(1) OWNER: Name City of Lacey Department of Ecology Address PO Box 3400, Lacey, WA 98509-3400

(2) LOCATION OF WELL: County Thurston NE 1/4 NW 1/4 Sec 25 T 18 N.R. 1W WM

(2a) STREET ADDRESS OF WELL: (or nearest address) 2800 Hibycus Court, Lacey, WA

TAX PARCEL NO.: 46780004600

(3) PROPOSED USE:  Domestic  Industrial  Municipal  
 Irrigation  Test Well  Other  
 DeWater

(4) TYPE OF WORK: Owner's number of well (if more than one) Well 24  
Replacement well  
 New Well Method:  
 Deepened  Dug  Bored  
 Reconditioned  Cable  Driven  
 Decommission  Rotary  Jetted

(5) DIMENSIONS: Diameter of well 16 inches  
Drilled 290 feet. Depth of completed well 282 ft.

(6) CONSTRUCTION DETAILS  
Casing Installed:  
 Welded 16 " Diam. from +2 ft. to 256 ft.  
 Liner installed " Diam. from " ft. to " ft.  
 Threaded " Diam. from " ft. to " ft.

Perforations:  Yes  No  
Type of perforator used \_\_\_\_\_  
SIZE of perforations \_\_\_\_\_ in. by \_\_\_\_\_ in.  
perforations from \_\_\_\_\_ ft. to \_\_\_\_\_ ft.

Screens:  Yes  No  K-Pac Location 252 ft  
Manufacturer's Name Johnson  
Type 304 stainless Model No. \_\_\_\_\_  
Diam. 14 PS Slot Size 150 from 256 ft. to 266 ft.  
Diam. 14 PS Slot Size 200 from 266 ft. to 276 ft.

Gravel/Filter packed:  Yes  No  Size of gravel/sand \_\_\_\_\_  
Material placed from \_\_\_\_\_ ft. to \_\_\_\_\_ ft.

Surface seal:  Yes  No to what depth? 168 ft.  
Material used in seal Bentonite  
Did any strata contain unusable water?  Yes  No  
Type of water? \_\_\_\_\_ Depth of strata \_\_\_\_\_  
Method of sealing strata off \_\_\_\_\_

(7) PUMP: Manufacturer's Name \_\_\_\_\_  
Type: \_\_\_\_\_ H.P. \_\_\_\_\_

(8) WATER LEVELS: Land-surface elevation above mean sea level 258 ft.  
Static level 214.4 ft. below top of well Date 11/26/02  
Artesian pressure \_\_\_\_\_ lbs. per square inch Date \_\_\_\_\_  
Artesian water is controlled by \_\_\_\_\_  
(Cap, valve, etc.)

(9) WELL TESTS: Drawdown is amount water level is lowered below static level  
Was a pump test made?  Yes  No If yes, by whom? P66 Holt  
Yield: 900 gal./min. with 11 ft. drawdown after 2.5 hrs.  
Yield: \_\_\_\_\_ gal./min. with \_\_\_\_\_ ft. drawdown after \_\_\_\_\_ hrs.  
Yield: \_\_\_\_\_ gal./min. with \_\_\_\_\_ ft. drawdown after \_\_\_\_\_ hrs.  
Recovery data (time taken as zero when pump turned off) (water level measured from well top to water level)  
Time Water Level Time Water Level Time Water Level  
0 225.4 5 214.60 27 214.56  
1 214.57 11 214.59 45 214.53  
3 214.61 17 214.58 95 214.50  
Date of test 11/26/02  
Bailer test \_\_\_\_\_ gal./min. with \_\_\_\_\_ ft. drawdown after \_\_\_\_\_ hrs.  
Airtest \_\_\_\_\_ gal./min. with \_\_\_\_\_ ft. drawdown after \_\_\_\_\_ hrs.  
Artesian flow \_\_\_\_\_ g.p.m. Date \_\_\_\_\_  
Temperature of water 50 F Was a chemical analysis made?  Yes  No

(10) WELL LOG or DECOMMISSIONING PROCEDURE DESCRIPTION  
Formation: Describe by color, character, size of material and structure, and the kind and nature of the material in each stratum penetrated, with at least one entry for each change of information. Indicate all water encountered.

MATERIAL	FROM	TO
Brown Sand & Gravel	0	5
Brown silty, cobbly sand & Gravel	5	27
Brown sand & Gravel	27	58
Brown silty Sand & Gravel	58	88
Reddish-brown, silty, sandy Gravel	88	109
Reddish-brown, silty, sandy gravel w/ tan silt layers	109	129
Brown, silty Sand w/ some gravel	129	152
Brown Sand & Gravel	152	158
Brown silt	158	163
Brown, silt bound Sand & Gravel	163	192
Brown, silt bound, cobbly, Sand & Gravel	192	203
Brown Sand & Gravel	203	210
Brown, silt bound Sand & Gravel	210	225
Brown cobbly sand & Gravel	225	235
Brown to olive brown, silty, cobbly, Sand & Gravel	235	245
Brown cobbly sand & Gravel	245	248
Brown to olive brown, silty, cobbly Sand & Gravel	248	257
Brown cobbly Sand & Gravel	257	278
Grayish-brown silt and gray silty fine Sand	278	290

Work Started 9/5/02 Completed 12/12/02

**WELL CONSTRUCTION CERTIFICATION:**

I constructed and/or accept responsibility for construction of this well, and its compliance with all Washington well construction standards. Materials used and the information reported above are true to my best knowledge and belief.

Type or Print Name Wade Iversen License No. 597  
(Licensed Driller/Engineer)  
Trainee Name Mike Pally License No. \_\_\_\_\_  
Drilling Company Holt Drilling Inc  
(Signed) Roly Holt License No. \_\_\_\_\_  
(Licensed Driller/Engineer)  
Address Po Box 1890  
Contractor's Registration No. HOLT DRILLING 13606 Date 12/5/02

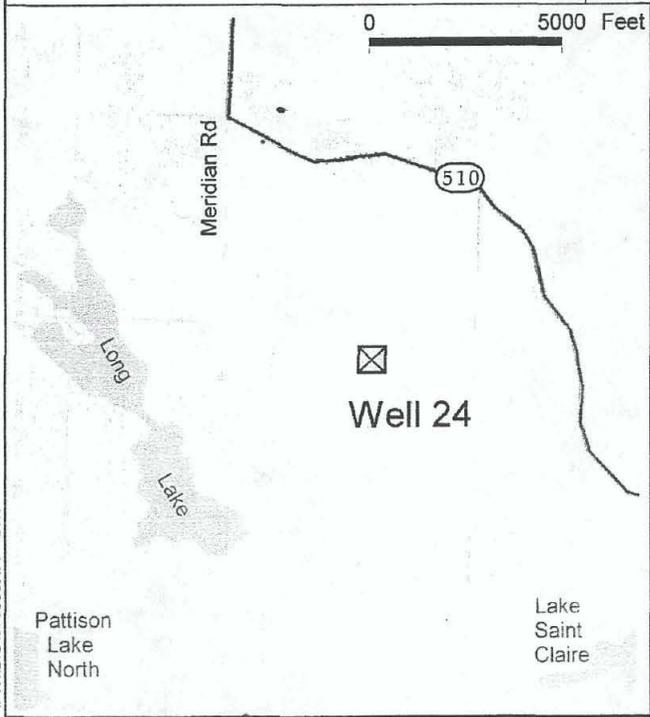
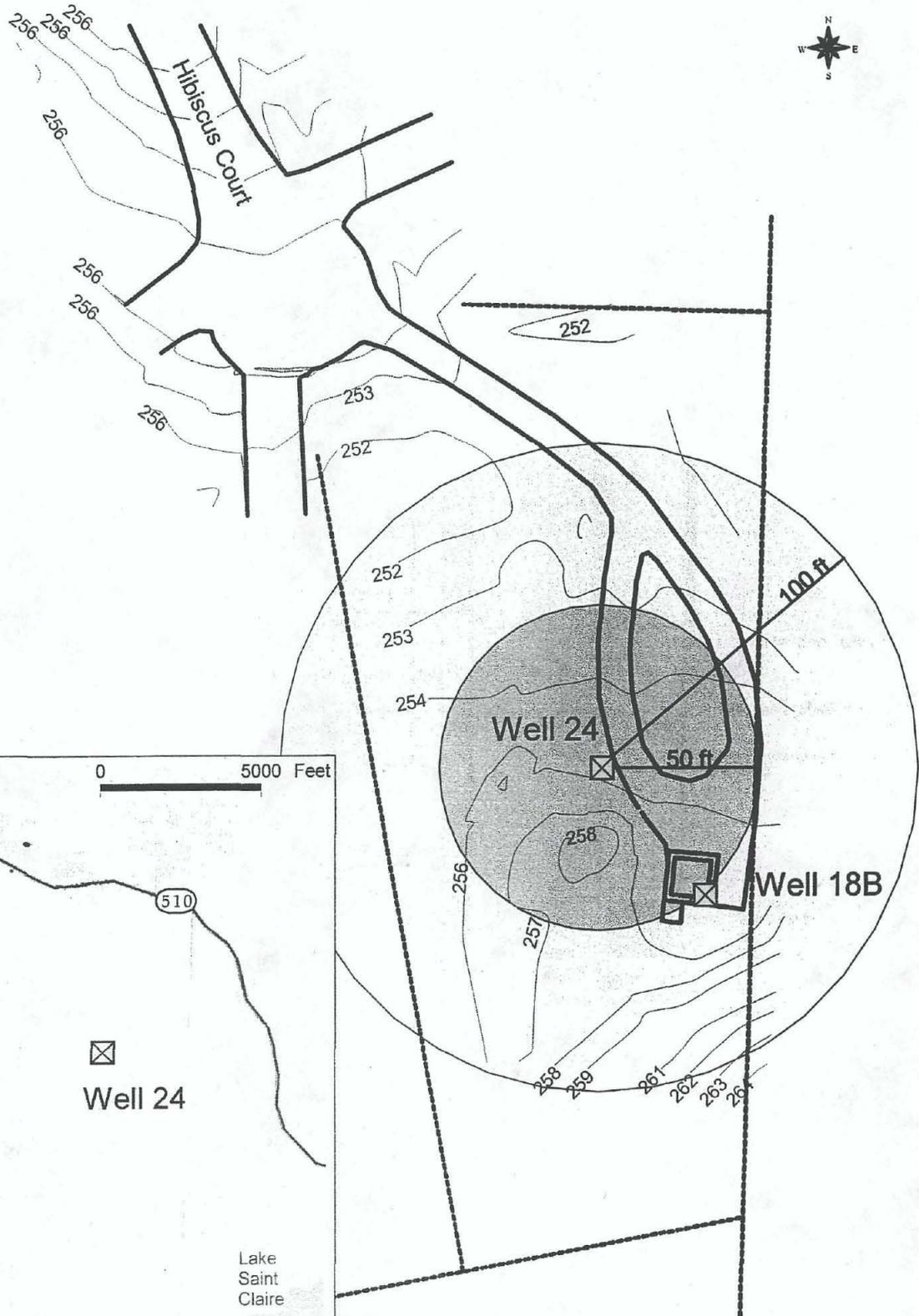
(USE ADDITIONAL SHEETS IF NECESSARY)

Ecology is an Equal Opportunity and Affirmative Action employer. For special accommodation needs, contact the Water Resources Program at (360) 407-6600. The TDD number is (360) 407-6006.

Transmission ~ 1,250,000 gpd/H  
Storage Coef'n 0.2



0 50 Feet



See Appendix B for Sanitary Control Area Variance

K:\Dan\JM930213\GIS\Wells.apr\Well 24 Site Plan 12/9/02

- Wells
- Parcels
- Highway 510
- Water Bodies
- Roads
- Property Boundary
- Contours
- 50 ft. Buffer
- 100 ft. Buffer

Figure 1  
Well 24 Site Plan and Vicinity Map

Well 24 Development Project  
City of Lacey

