



Mayor Charlie Hales
David G. Shaff, Administrator

1120 SW 5th Avenue, Room 600
Portland, Oregon 97204-1926
Information: 503-823-7404
www.portlandoregon.gov/water



An Equal Opportunity Employer

March 20, 2013

Mr. Craig Kohanek
Oregon Water Resources Department
Water Right Services Division
725 Summer St. NE, Suite A
Salem, OR 97301-1266

RECEIVED BY CWRD

MAR 21 2013

SALEM, OR

RE: Groundwater Permit G-10124, Partial Certificate Final Order

Dear Craig:

After review of the proposed Final Order for a partial water right certificate for groundwater Permit G-10124 for the City of Portland - Water Bureau (PWB), we have a request to modify the Final Order, if possible. The proposed Order entitles the PWB to the partial perfection quantity of 34.40 CFS, distributed as follows:

Well 17 - 5.70 CFS
Well 18 - 14.80 CFS
Well 19 - 13.90 CFS

The pump test volumes utilized for our COBU submittal were based upon pumping all three wells during the same four-hour period on Nov. 14, 2006. However, in item number 3 under the *Rate and Beneficial Use* section of the Memo from Dwight French dated May 18, 2012 and entitled *Determining Proof to the Satisfaction for Municipal and Quasi-Municipal Use Permits*, it states:

"If there are multiple diversion points on the permit, the proposed or final certificate shall be limited to the rate that has been demonstrated for each diversion point. It is not necessary that each diversion point on a multiple diversion point permit have its demonstration period tested at the same time."

There is a lower volume for Well 19 compared to Well 18 shown on the certificate relative to actual pumping rates and we were under the belief that pumping on multiple diversions required us to pump at all the well sites within the same four hour period. Due to high manganese levels in Well 17 and to a lesser degree Well 18, we would like to perfect a higher volume in the partial certificate from Well 19. Attached for your review is our SCADA data from a pumping session for Well 19 on August 9, 2012 (10:40 AM to 2:40 PM) that demonstrates an average volume of 8,736 GPM or 19.46 CFS.

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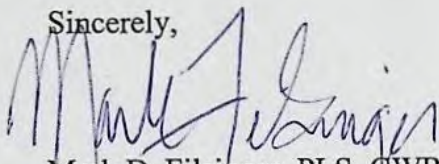
March 20, 2013

Mr. Craig Kohanek

RE: Groundwater Permit G-10124, Partial Certificate Final Order

Please consider revising the Final Order to reflect the higher volume from Well 19. It is my understanding that this revision would not alter the total partial certificate volume of 34.40 CFS, but would enable the PWB to utilize the full volume of 19.46 CFS from Well 19. Please advise us on how we can proceed to complete this partial certificate. At your request, we can provide the full SCADA printout for all our wells on 08/09/2012.

Sincerely,

A handwritten signature in blue ink, appearing to read 'Mark D. Filsinger', is written over the typed name.

Mark D. Filsinger, PLS, CWRE
Engineering Survey Manager

RECEIVED BY OWRD

MAR 21 2013

SALEM, OR

(Partial printout)

City of Portland
Groundwater Permit G-10124
SCADA Data

PWB Well 19

Minute data

Data retrieved on Aug 22 2012 11:26:38 AM

Date	W01FI011	W02FI011	W03FI011	W04FI011	W05FI011	W06FI011	W07FI011	W08FI011	W09FI011	W10FI011	W11FI011	W12FI011	W13FI011	W14FI011	W15FI011	W16FI011	W17FI011	W18FI011	W19FI011
08/09/2012 08:23	0.00	2.44	0.00	0.00	0.92	0.00	0.00	-2.03		0.61	0.00	0.00	0.00	-39.38	0.00	0.00	0.00	0.00	0.00
08/09/2012 08:24	0.00	2.44	0.00	0.00	0.92	0.00	0.00	-2.03		0.61	0.00	0.00	0.00	-39.38	0.00	0.00	0.00	0.00	0.00
08/09/2012 08:25	0.00	2.44	0.00	0.00	0.92	0.00	0.00	-2.11		0.61	0.00	0.00	0.00	-39.38	0.00	0.00	0.00	0.00	0.00
08/09/2012 08:26	0.00	2.44	0.00	0.00	0.92	0.00	0.00	-1.72		0.61	0.00	0.00	0.00	-39.38	0.00	0.00	0.00	0.00	0.00
08/09/2012 08:27	0.00	2.44	0.00	0.00	0.92	0.00	0.00	-2.97		0.61	0.00	0.00	0.00	-39.30	0.00	0.00	0.00	0.00	0.00
08/09/2012 08:28	0.00	2.44	0.00	0.00	0.92	0.00	0.00	-1.88		0.61	0.00	0.00	0.00	-39.38	0.00	0.00	0.00	0.00	0.00
08/09/2012 08:29	0.00	2.44	0.00	0.00	0.92	0.00	0.00	-2.50		0.61	0.00	0.00	0.00	-39.53	0.00	0.00	0.00	0.00	0.00
08/09/2012 08:30	0.00	2.44	0.00	0.00	0.92	0.00	0.00	-2.50		0.61	0.00	0.00	0.00	-39.53	0.00	0.00	0.00	0.00	0.00
08/09/2012 08:31	0.00	2.44	0.00	0.00	0.92	0.00	0.00	-1.88		0.61	0.00	0.00	0.00	-39.30	0.00	0.00	0.00	0.00	0.00
08/09/2012 08:32	0.00	2.44	0.00	0.00	0.92	0.00	0.00	-2.58		0.61	0.00	0.00	0.00	-39.38	0.00	0.00	0.00	0.00	6982.80
08/09/2012 08:33	0.00	2.44	0.00	0.00	0.92	0.00	0.00	-2.58		0.61	0.00	0.00	0.00	-39.38	0.00	0.00	0.00	0.00	6982.80
08/09/2012 08:34	0.00	2.44	0.00	0.00	0.92	0.00	0.00	-1.64		0.61	0.00	0.00	0.00	-39.22	0.00	0.00	0.00	0.00	6982.80
08/09/2012 08:35	0.00	2.44	0.00	0.00	0.92	0.00	0.00	-1.95		0.61	0.00	0.00	0.00	-39.53	0.00	0.00	0.00	0.00	9027.70
08/09/2012 08:36	0.00	2.44	0.00	0.00	0.92	0.00	0.00	0.08		0.61	0.00	0.00	0.00	-39.45	0.00	0.00	0.00	0.00	9048.60
08/09/2012 08:37	0.00	2.44	0.00	0.00	0.92	0.00	0.00	-1.72		0.61	0.00	0.00	0.00	-39.38	0.00	0.00	0.00	0.00	8987.00
08/09/2012 08:38	0.00	2.44	0.00	0.00	0.92	0.00	0.00	-1.95		0.61	0.00	0.00	0.00	-39.38	0.00	0.00	0.00	0.00	8982.60
08/09/2012 08:39	0.00	2.44	0.00	0.00	0.92	0.00	0.00	-1.95		0.61	0.00	0.00	0.00	-39.38	0.00	0.00	0.00	0.00	8982.60
08/09/2012 08:40	0.00	2.44	0.00	0.00	0.92	0.00	0.00	-2.19		0.61	0.00	0.00	0.00	-39.38	0.00	0.00	0.00	0.00	8982.60
08/09/2012 08:41	0.00	2.44	0.00	0.00	0.92	0.00	0.00	-1.80		0.61	0.00	0.00	0.00	-39.61	0.00	0.00	0.00	0.00	8947.40
08/09/2012 08:42	0.00	2.44	0.00	0.00	0.92	0.00	0.00	-1.80		0.61	0.00	0.00	0.00	-39.61	0.00	0.00	0.00	0.00	8947.40
08/09/2012 08:43	0.00	2.44	0.00	0.00	0.92	0.00	0.00	-1.09		0.61	0.00	0.00	0.00	-39.38	0.00	0.00	0.00	0.00	8925.40
08/09/2012 08:44	0.00	2.44	0.00	0.00	0.92	0.00	0.00	-2.03		0.61	0.00	0.00	0.00	-39.53	0.00	0.00	0.00	0.00	8923.20
08/09/2012 08:45	0.00	2.44	0.00	0.00	0.92	0.00	0.00	-2.11		0.61	0.00	0.00	0.00	-39.45	0.00	0.00	0.00	0.00	8873.70
08/09/2012 08:46	0.00	2.44	0.00	0.00	0.92	0.00	0.00	-0.78		0.61	0.00	0.00	0.00	-39.38	0.00	0.00	0.00	0.00	8877.00
08/09/2012 08:47	0.00	2.44	0.00	0.00	0.92	0.00	0.00	-1.33		0.61	0.00	0.00	0.00	-39.30	0.00	0.00	0.00	0.00	8888.00
08/09/2012 08:48	0.00	2.44	0.00	0.00	0.92	0.00	0.00	-1.33		0.61	0.00	0.00	0.00	-39.30	0.00	0.00	0.00	0.00	8888.00
08/09/2012 08:49	0.00	2.44	0.00	0.00	0.92	0.00	0.00	-2.42		0.61	0.00	0.00	0.00	-39.38	0.00	0.00	0.00	0.00	8888.00
08/09/2012 08:50	0.00	2.44	0.00	0.00	0.92	0.00	0.00	-2.42		0.61	0.00	0.00	0.00	-39.38	0.00	0.00	0.00	0.00	8856.10
08/09/2012 08:51	0.00	2.44	0.00	0.00	0.92	0.00	0.00	-2.42		0.61	0.00	0.00	0.00	-39.38	0.00	0.00	0.00	0.00	8856.10
08/09/2012 08:52	0.00	2.44	0.00	0.00	0.92	0.00	0.00	-1.64		0.61	0.00	0.00	0.00	-39.38	0.00	0.00	0.00	0.00	8822.00
08/09/2012 08:53	0.00	2.44	0.00	0.00	0.92	0.00	0.00	-2.34		0.61	0.00	0.00	0.00	-39.38	0.00	0.00	0.00	0.00	8870.40
08/09/2012 08:54	0.00	2.44	0.00	0.00	0.92	0.00	0.00	-2.34		0.61	0.00	0.00	0.00	-39.38	0.00	0.00	0.00	0.00	8870.40
08/09/2012 08:55	0.00	2.44	0.00	0.00	0.92	0.00	0.00	-2.19		0.61	0.00	0.00	0.00	-39.30	0.00	0.00	0.00	0.00	8844.00
08/09/2012 08:56	0.00	2.44	0.00	0.00	0.92	0.00	0.00	-1.41		0.61	0.00	0.00	0.00	-39.30	0.00	0.00	0.00	0.00	8811.00
08/09/2012 08:57	0.00	2.44	0.00	0.00	0.92	0.00	0.00	-1.41		0.61	0.00	0.00	0.00	-39.30	0.00	0.00	0.00	0.00	8811.00
08/09/2012 08:58	0.00	2.44	0.00	0.00	0.92	0.00	0.00	-2.19		0.61	0.00	0.00	0.00	-39.38	0.00	0.00	0.00	0.00	8817.60
08/09/2012 08:59	0.00	2.44	0.00	0.00	0.92	0.00	0.00	-1.56		0.61	0.00	0.00	0.00	-39.22	0.00	0.00	0.00	0.00	8820.90
08/09/2012 09:00	0.00	2.44	0.00	0.00	0.92	0.00	0.00	-1.56		0.61	0.00	0.00	0.00	-39.22	0.00	0.00	0.00	0.00	8805.50
08/09/2012 09:01	0.00	2.44	0.00	0.00	0.92	0.00	0.00	-1.72		0.61	0.00	0.00	0.00	-39.30	0.00	0.00	0.00	0.00	8827.50
08/09/2012 09:02	0.00	2.44	0.00	0.00	0.92	0.00	0.00	-1.95		0.61	0.00	0.00	0.00	-39.30	0.00	0.00	0.00	0.00	8797.80
08/09/2012 09:03	0.00	2.44	0.00	0.00	0.92	0.00	0.00	-1.95		0.61	0.00	0.00	0.00	-39.30	0.00	0.00	0.00	0.00	8797.80
08/09/2012 09:04	0.00	2.44	0.00	0.00	0.92	0.00	0.00	-1.95		0.61	0.00	0.00	0.00	-39.38	0.00	0.00	0.00	0.00	8801.10
08/09/2012 09:05	0.00	2.44	0.00	0.00	0.92	0.00	0.00	-1.25		0.61	0.00	0.00	0.00	-39.30	0.00	0.00	0.00	0.00	8782.40
08/09/2012 09:06	0.00	2.44	0.00	0.00	0.92	0.00	0.00	-2.73		0.61	0.00	0.00	0.00	-39.53	0.00	0.00	0.00	0.00	8809.90
08/09/2012 09:07	0.00	2.44	0.00	0.00	0.92	0.00	0.00	-2.58		0.61	0.00	0.00	0.00	-39.30	0.00	0.00	0.00	0.00	8809.90
08/09/2012 09:08	0.00	2.44	0.00	0.00	0.92	0.00	0.00	-2.11		0.61	0.00	0.00	0.00	-39.22	0.00	0.00	0.00	0.00	8823.10
08/09/2012 09:09	0.00	2.44	0.00	0.00	0.92	0.00	0.00	-2.11		0.61	0.00	0.00	0.00	-39.22	0.00	0.00	0.00	0.00	8823.10
08/09/2012 09:10	0.00	2.44	0.00	0.00	0.92	0.00	0.00	-1.33		0.61	0.00	0.00	0.00	-39.38	604.08	0.00	0.00	0.00	8786.80
08/09/2012 09:11	0.00	2.44	0.00	0.00	0.92	0.00	0.00	-2.11		0.61	0.00	0.00	0.00	-39.45	626.05	0.00	0.00	0.00	8817.60
08/09/2012 09:12	0.00	2.44	0.00	0.00	0.92	0.00	0.00	-2.11		0.61	0.00	0.00	0.00	-39.45	618.73	0.00	0.00	0.00	8817.60
08/09/2012 09:13	0.00	2.44	0.00	0.00	0.92	0.00	0.00	-3.59		0.61	0.00	0.00	0.00	-39.30	608.72	0.00	0.00	0.00	8791.20
08/09/2012 09:14	0.00	2.44	0.00	0.00	0.92	0.00	0.00	-1.80		0.61	0.00	0.00	0.00	-39.38	617.51	0.00	0.00	1.00	8751.80
08/09/2012 09:15	0.00	2.44	0.00	0.00	0.92	0.00	0.00	-2.42		0.61	0.00	0.00	0.00	-39.38	617.51	0.00	0.00	1.00	8773.60
08/09/2012 09:16	0.00	2.44	0.00	0.00	0.92	0.00	0.00	-2.11		0.61	0.00	0.00	0.00	-39.53	620.44	0.00	0.00	0.00	8784.60
08/09/2012 09:17	0.00	2.44	0.00	0.00	0.92	0.00	0.00	-2.50		0.61	0.00	0.00	0.00	-39.45	600.66	0.00	0.00	0.00	8790.10
08/09/2012 09:18	0.00	2.44	0.00	0.00	0.92	0.00	0.00	-2.50		0.61	0.00	0.00	0.00	-39.45	607.01	0.00	0.00	0.00	8790.10
08/09/2012 09:19	0.00	2.44	0.00	0.00	0.92	0.00	0.00	-1.09		0.61	0.00	0.00	0.00	-39.38	614.33	0.00	0.00	0.00	8785.70
08/09/2012 09:20	0.00	2.44	0.00	0.00	0.92	0.00	0.00	-1.41		0.61	0.00	0.00	0.00	-39.38	602.12	0.00	0.00	0.00	8794.50
08/09/2012 09:21	0.00	2.44	0.00	0.00	0.92	0.00	0.00	-1.41		0.61	0.00	0.00	0.00	-39.38	602.12	0.00	0.00	0.00	8773.60
08/09/2012 09:22	0.00	2.44	0.00	0.00	0.92	0.00	0.00	-3.44		0.61	0.00	0.00	0.00	-39.30	612.87	0.00	0.00	0.00	8760.40
08/09/2012 09:23	0.00	2.44	0.00	0.00	0.92	0.00	0.00	-1.48		0.61	0.00	0.00	0.00	-39.30	597.97	0.00	0.00	0.00	8760.40
08/09/20																			

08/09/2012 09:27	0.00	2.44	0.00	0.00	0.92	0.00	0.00	-2.66	0.61	0.00	0.00	0.00	-39.38	617.51	0.00	0.00	0.00	8771.40
08/09/2012 09:28	0.00	2.44	0.00	0.00	0.92	0.00	0.00	-2.11	0.61	0.00	0.00	0.00	-39.30	605.54	0.00	0.00	0.00	8779.10
08/09/2012 09:29	0.00	2.44	0.00	0.00	0.92	0.00	0.00	-1.95	0.61	0.00	0.00	0.00	-39.22	603.83	0.00	0.00	0.00	8784.60
08/09/2012 09:30	0.00	2.44	0.00	0.00	0.92	0.00	0.00	-1.95	0.61	0.00	0.00	0.00	-39.22	603.83	0.00	0.00	0.00	8784.60
08/09/2012 09:31	0.00	2.44	0.00	0.00	0.92	0.00	0.00	-1.33	0.61	0.00	0.00	0.00	-39.30	609.94	0.00	0.00	0.00	8784.60
08/09/2012 09:32	8.30	2.44	0.00	0.00	0.92	0.00	0.00	-1.80	0.61	0.00	0.00	0.00	-39.30	599.93	0.00	0.00	0.00	8769.20
08/09/2012 09:33	0.00	2.44	0.00	0.00	0.92	0.00	0.00	-1.80	0.61	0.00	0.00	0.00	-39.30	601.39	0.00	0.00	0.00	8769.20
08/09/2012 09:34	0.00	2.44	0.00	0.00	0.92	0.00	0.00	-1.02	0.61	0.00	0.00	0.00	-39.45	609.69	0.00	0.00	0.00	8774.70
08/09/2012 09:35	0.00	2.44	0.00	0.00	0.92	0.00	0.00	-2.11	0.61	0.00	0.00	0.00	-39.30	609.45	0.00	0.00	0.00	8800.00
08/09/2012 09:36	0.00	2.44	0.00	0.00	0.92	0.00	0.00	-1.72	0.61	0.00	0.00	0.00	-39.45	609.45	0.00	0.00	0.00	8768.10
08/09/2012 09:37	0.00	2.44	0.00	0.00	0.92	0.00	0.00	-1.95	0.61	0.00	0.00	0.00	-39.53	591.87	0.00	0.00	0.00	8767.00
08/09/2012 09:38	0.00	2.44	0.00	0.00	0.92	0.00	0.00	-1.48	0.61	0.00	0.00	0.00	-39.53	612.14	0.00	0.00	0.00	8780.20
08/09/2012 09:39	0.00	2.44	0.00	0.00	0.92	0.00	0.00	-1.48	0.61	0.00	0.00	0.00	-39.53	610.91	0.00	0.00	0.00	8780.20
08/09/2012 09:40	0.00	2.44	0.00	0.00	0.92	0.00	0.00	-2.42	0.61	0.00	0.00	0.00	-39.30	599.93	0.00	0.00	0.00	8780.20
08/09/2012 09:41	0.00	2.44	0.00	0.00	0.92	0.00	0.00	-2.11	0.61	0.00	0.00	0.00	-39.38	596.26	0.00	0.00	0.00	8750.50
08/09/2012 09:42	0.00	2.44	0.00	0.00	0.92	0.00	0.00	-2.11	0.61	0.00	0.00	0.00	-39.38	596.26	0.00	0.00	0.00	8750.50
08/09/2012 09:43	0.00	2.44	0.00	0.00	0.92	0.00	0.00	-1.48	0.61	0.00	0.00	0.00	-39.30	608.47	0.00	0.00	0.00	8752.70
08/09/2012 09:44	0.00	2.44	0.00	0.00	0.92	0.00	0.00	-1.80	0.61	0.00	0.00	0.00	-39.45	606.03	0.00	0.00	0.00	8754.90
08/09/2012 09:45	0.00	2.44	0.00	0.00	0.92	0.00	0.00	-1.80	0.61	0.00	0.00	0.00	-39.45	606.03	0.00	0.00	0.00	8772.50
08/09/2012 09:46	0.00	2.44	0.00	0.00	0.92	0.00	0.00	-2.11	0.61	0.00	0.00	0.00	-39.45	604.32	0.00	0.00	0.00	8772.50
08/09/2012 09:47	0.00	2.44	0.00	0.00	0.92	0.00	0.00	-1.64	0.61	0.00	0.00	0.00	-39.38	611.65	0.00	0.00	0.00	8764.80
08/09/2012 09:48	0.00	2.44	0.00	0.00	0.92	0.00	0.00	-1.64	0.61	0.00	0.00	0.00	-39.38	611.65	0.00	0.00	0.00	8764.80
08/09/2012 09:49	0.00	2.44	0.00	0.00	0.92	0.00	0.00	-2.19	0.61	0.00	0.00	0.00	-39.30	610.67	0.00	0.00	0.00	8756.00
08/09/2012 09:50	0.00	2.44	0.00	0.00	0.92	0.00	0.00	-1.95	0.61	0.00	0.00	0.00	-39.30	601.15	0.00	0.00	0.00	8766.80
08/09/2012 09:51	0.00	2.44	0.00	0.00	0.92	0.00	0.00	-1.95	0.61	0.00	0.00	0.00	-39.30	604.57	0.00	0.00	0.00	8766.80
08/09/2012 09:52	0.00	2.44	0.00	0.00	0.92	0.00	0.00	-1.25	0.61	0.00	0.00	0.00	-39.38	608.23	0.00	0.00	0.00	8765.90
08/09/2012 09:53	0.00	2.44	0.00	0.00	0.92	0.00	0.00	-1.33	0.61	0.00	0.00	0.00	-39.38	609.69	0.00	0.00	0.00	8772.50
08/09/2012 09:54	0.00	2.44	0.00	0.00	0.92	0.00	0.00	-1.88	0.61	0.00	0.00	0.00	-39.38	609.69	0.00	0.00	0.00	8772.50
08/09/2012 09:55	0.00	2.44	0.00	0.00	0.92	0.00	0.00	-1.48	0.61	0.00	0.00	0.00	-39.38	606.03	0.00	0.00	0.00	8746.30
08/09/2012 09:56	0.00	2.44	0.00	0.00	0.92	0.00	0.00	-4.14	0.61	0.00	0.00	0.00	-39.38	600.90	0.00	0.00	0.00	8775.80
08/09/2012 09:57	0.00	2.44	0.00	0.00	0.92	0.00	0.00	-4.14	0.61	0.00	0.00	0.00	-39.38	612.38	0.00	0.00	0.00	8775.80
08/09/2012 09:58	0.00	2.44	0.00	0.00	0.92	0.00	0.00	-1.33	0.61	0.00	0.00	0.00	-39.30	601.64	0.00	0.00	0.00	8768.10
08/09/2012 09:59	0.00	2.44	0.00	0.00	0.92	0.00	0.00	-1.64	0.61	0.00	0.00	0.00	-39.38	612.62	0.00	0.00	0.00	8762.40
08/09/2012 10:00	0.00	2.44	0.00	0.00	0.92	0.00	0.00	-1.64	0.61	0.00	0.00	0.00	-39.38	609.21	0.00	0.00	0.00	8762.40
08/09/2012 10:01	0.00	2.44	0.00	0.00	0.92	0.00	0.00	-1.17	0.61	0.00	0.00	0.00	-39.30	599.19	0.00	0.00	0.00	8773.60
08/09/2012 10:02	0.00	2.44	0.00	0.00	0.92	0.00	0.00	-2.19	0.61	0.00	0.00	0.00	-39.53	607.74	0.00	0.00	0.00	8775.80
08/09/2012 10:03	0.00	2.44	0.00	0.00	0.92	0.00	0.00	-2.19	0.61	0.00	0.00	0.00	-39.53	607.74	0.00	0.00	0.00	8775.80
08/09/2012 10:04	0.00	2.44	0.00	0.00	0.92	0.00	0.00	-1.41	0.61	0.00	0.00	0.00	-39.45	613.84	0.00	0.00	0.00	8746.10
08/09/2012 10:05	0.00	2.44	0.00	0.00	0.92	0.00	0.00	-1.56	0.61	0.00	0.00	0.00	-39.38	606.28	0.00	0.00	0.00	8780.20
08/09/2012 10:06	0.00	2.44	0.00	0.00	0.92	0.00	0.00	-1.56	0.61	0.00	0.00	0.00	-39.38	599.19	0.00	0.00	0.00	8780.20
08/09/2012 10:07	0.00	2.44	0.00	0.00	0.92	0.00	0.00	-2.42	0.61	0.00	0.00	0.00	-39.38	603.59	0.00	0.00	0.00	8771.40
08/09/2012 10:08	0.00	2.44	0.00	0.00	0.92	0.00	0.00	-2.27	0.61	0.00	0.00	0.00	-39.53	618.00	0.00	0.00	0.00	8781.30
08/09/2012 10:09	0.00	2.44	0.00	0.00	0.92	0.00	0.00	-1.95	0.61	0.00	0.00	0.00	-39.53	618.00	0.00	0.00	0.00	8756.00
08/09/2012 10:10	0.00	2.44	0.00	0.00	0.92	0.00	0.00	-1.88	0.61	0.00	0.00	0.00	-39.53	609.45	0.00	0.00	0.00	8752.70
08/09/2012 10:11	0.00	2.44	0.00	0.00	0.92	0.00	0.00	-1.72	0.61	0.00	0.00	0.00	-39.30	598.22	0.00	0.00	0.00	8772.50
08/09/2012 10:12	0.00	2.44	0.00	0.00	0.92	0.00	0.00	-1.72	0.61	0.00	0.00	0.00	-39.30	612.87	0.00	0.00	0.00	8772.50
08/09/2012 10:13	0.00	2.44	0.00	0.00	0.92	0.00	0.00	-1.80	0.61	0.00	0.00	0.00	-39.45	604.08	0.00	0.00	0.00	8756.00
08/09/2012 10:14	0.00	2.44	0.00	0.00	0.92	0.00	0.00	-2.58	0.61	0.00	0.00	0.00	-39.45	611.16	0.00	0.00	0.00	8762.60
08/09/2012 10:15	0.00	2.44	0.00	0.00	0.92	0.00	0.00	-2.58	0.61	0.00	0.00	0.00	-39.45	611.16	0.00	0.00	0.00	8762.60
08/09/2012 10:16	0.00	2.44	0.00	0.00	0.92	0.00	0.00	-1.41	0.61	0.00	0.00	0.00	-39.38	609.21	0.00	0.00	0.00	8778.00
08/09/2012 10:17	0.00	2.44	0.00	0.00	0.92	0.00	0.00	-1.80	0.61	0.00	0.00	0.00	-39.45	603.59	0.00	0.00	0.00	8759.30
08/09/2012 10:18	0.00	2.44	0.00	0.00	0.92	0.00	0.00	-1.80	0.61	0.00	0.00	0.00	-39.45	599.44	0.00	0.00	0.00	8759.30
08/09/2012 10:19	0.00	2.44	0.00	0.00	0.92	0.00	0.00	-1.80	0.61	0.00	0.00	0.00	-39.45	604.81	0.00	0.00	0.00	8759.30
08/09/2012 10:20	0.00	2.44	0.00	0.00	0.92	0.00	0.00	-1.88	0.61	0.00	0.00	0.00	-39.38	602.61	0.00	0.00	0.00	8773.60
08/09/2012 10:21	0.00	2.44	0.00	0.00	0.92	0.00	0.00	-1.88	0.61	0.00	0.00	0.00	-39.38	608.23	0.00	0.00	0.00	8773.60
08/09/2012 10:22	0.00	2.44	0.00	0.00	0.92	0.00	0.00	-1.02	0.61	0.00	0.00	0.00	-39.38	608.47	0.00	0.00	0.00	8782.40
08/09/2012 10:23	0.00	2.44	0.00	0.00	0.92	0.00	0.00	-1.64	0.61	0.00	0.00	0.00	-39.38	602.61	0.00	0.00	0.00	8752.70
08/09/2012 10:24	0.00	2.44	0.00	0.00	0.92	0.00	0.00	-1.72	0.61	0.00	0.00	0.00	-39.38	602.61	0.00	0.00	0.00	8752.70
08/09/2012 10:25	0.00	2.44	0.00	0.00	0.92	0.00	0.00	-2.03	0.61	0.00	0.00	0.00	-39.38	615.07	0.00	0.00	0.00	8768.10
08/09/2012 10:26	0.00	2.44	0.00	0.00	0.92	0.00	0.00	-2.19	0.61	0.00	0.00	0.00	-39.45	597.97	0.00	0.00	0.00	8763.70
08/09/2012 10:27	0.00	2.44	0.00	0.00	0.92	0.00	0.00	-2.19	0.61	0.00	0.00	0.00	-39.45	601.64	0.00	0.00	0.00	8763.70
08/09/2012 10:28	0.00	2.44	0.00	0.00	0.92	0.00	0.00	-2.50	0.61	0.00	0.00	0.00	-39.53	598.95	0.00	0.00	0.00	8749.40
08/09/2012 10:29	0.00	2.44	0.00	0.00	0.92	0.00	0.00	-1.72	0.61	0.00	0.00	0.00	-39.38	598.95	0.00	0.00	0.00	8764.80
08/09/2012																		

08/09/2012 10:35	0.00	2.44	0.00	0.00	0.92	0.00	0.00	-2.27	0.61	0.00	0.00	0.00	-39.45	601.15	0.00	0.00	0.00	8745.00
08/09/2012 10:36	8.30	2.44	0.00	0.00	0.92	0.00	0.00	-2.27	0.61	0.00	0.00	0.00	-39.45	597.49	0.00	0.00	0.00	8745.00
08/09/2012 10:37	8.30	2.44	0.00	0.00	0.92	0.00	0.00	-2.34	0.61	0.00	0.00	0.00	-39.30	606.03	0.00	0.00	0.00	8753.80
08/09/2012 10:38	8.30	2.44	0.00	0.00	0.92	0.00	0.00	-1.64	0.61	0.00	0.00	0.00	-39.30	611.89	0.00	0.00	0.00	8725.20
08/09/2012 10:39	8.30	2.44	0.00	0.00	0.92	0.00	0.00	-1.64	0.61	0.00	0.00	0.00	-39.30	611.89	0.00	0.00	0.00	8739.50
08/09/2012 10:40	0.49	2.44	0.00	0.00	0.92	0.00	0.00	-1.41	0.61	0.00	0.00	0.00	-39.38	597.00	0.00	0.00	0.00	8761.50
08/09/2012 10:41	0.49	2.44	0.00	0.00	0.92	0.00	0.00	-2.34	0.61	0.00	0.00	0.00	-39.38	614.82	0.00	0.00	0.00	8754.90
08/09/2012 10:42	0.49	2.44	0.00	0.00	0.92	0.00	0.00	-2.34	0.61	0.00	0.00	0.00	-39.38	607.98	0.00	0.00	0.00	8754.90
08/09/2012 10:43	0.49	2.44	0.00	0.00	0.92	0.00	0.00	-2.34	0.61	0.00	0.00	0.00	-39.30	603.10	0.00	0.00	0.00	8741.70
08/09/2012 10:44	0.49	2.44	0.00	0.00	0.92	0.00	0.00	-0.94	0.61	0.00	0.00	0.00	-39.45	606.03	0.00	0.00	0.00	8745.00
08/09/2012 10:45	0.49	2.44	0.00	0.00	0.92	0.00	0.00	-0.94	0.61	0.00	0.00	0.00	-39.45	606.03	0.00	0.00	0.00	8745.00
08/09/2012 10:46	0.49	2.44	0.00	0.00	0.92	0.00	0.00	-1.41	0.61	0.00	0.00	0.00	-39.30	610.18	0.00	0.00	0.00	8745.00
08/09/2012 10:47	0.49	2.44	0.00	0.00	0.92	0.00	0.00	-1.56	0.61	0.00	0.00	0.00	-39.38	597.72	0.00	0.00	0.00	8747.20
08/09/2012 10:48	0.49	2.44	0.00	0.00	0.92	0.00	0.00	-1.64	0.61	0.00	0.00	0.00	-39.38	587.72	0.00	0.00	0.00	8753.80
08/09/2012 10:49	0.49	2.44	0.00	0.00	0.92	0.00	0.00	-1.64	0.61	0.00	0.00	0.00	-39.30	605.79	0.00	0.00	0.00	8747.20
08/09/2012 10:50	0.49	2.44	0.00	0.00	0.92	0.00	0.00	-2.27	0.61	0.00	0.00	0.00	-39.53	612.38	0.00	0.00	0.00	8747.20
08/09/2012 10:51	0.49	2.44	0.00	0.00	0.92	0.00	0.00	-2.27	0.61	0.00	0.00	0.00	-39.38	612.38	0.00	0.00	0.00	8751.60
08/09/2012 10:52	0.49	2.44	0.00	0.00	0.92	0.00	0.00	-2.27	0.61	0.00	0.00	0.00	-39.45	600.42	0.00	0.00	0.00	8745.00
08/09/2012 10:53	0.49	2.44	0.00	0.00	0.92	0.00	0.00	-1.56	0.61	0.00	0.00	0.00	-39.45	601.39	0.00	0.00	0.00	8762.60
08/09/2012 10:54	0.49	2.44	0.00	0.00	0.92	0.00	0.00	-1.56	0.61	0.00	0.00	0.00	-39.38	602.86	0.00	0.00	0.00	8771.40
08/09/2012 10:55	0.49	2.44	0.00	0.00	0.92	0.00	0.00	-1.48	0.61	0.00	0.00	0.00	-39.45	597.73	0.00	0.00	0.00	8758.20
08/09/2012 10:56	0.49	2.44	0.00	0.00	0.92	0.00	0.00	-1.17	0.61	0.00	0.00	0.00	-39.45	597.73	0.00	0.00	0.00	8771.40
08/09/2012 10:57	0.49	2.44	0.00	0.00	0.92	0.00	0.00	-1.17	0.61	0.00	0.00	0.00	-39.61	597.73	0.00	0.00	0.00	8771.40
08/09/2012 10:58	0.49	2.44	0.00	0.00	0.92	0.00	0.00	-1.80	0.61	0.00	0.00	0.00	-39.45	594.31	0.00	0.00	0.00	8780.20
08/09/2012 10:59	0.49	2.44	0.00	0.00	0.92	0.00	0.00	-1.64	0.61	0.00	0.00	0.00	-39.69	592.11	0.00	0.00	0.00	8746.10
08/09/2012 11:00	0.49	2.44	0.00	0.00	0.92	0.00	0.00	-1.64	0.61	0.00	0.00	0.00	-39.45	592.11	0.00	0.00	0.00	8746.10
08/09/2012 11:01	0.49	2.44	0.00	0.00	0.92	0.00	0.00	-1.25	0.61	0.00	0.00	0.00	-39.45	605.30	0.00	0.00	0.00	8728.50
08/09/2012 11:02	0.49	2.44	0.00	0.00	0.92	0.00	0.00	-1.72	0.61	0.00	0.00	0.00	-39.38	595.78	0.00	0.00	0.00	8750.50
08/09/2012 11:03	0.49	2.44	0.00	0.00	0.92	0.00	0.00	-1.72	0.61	0.00	0.00	0.00	-39.38	595.78	0.00	0.00	1.00	8750.50
08/09/2012 11:04	0.49	2.44	0.00	0.00	0.92	0.00	0.00	-2.03	0.61	0.00	0.00	0.00	-39.38	604.81	0.00	0.00	0.00	8768.10
08/09/2012 11:05	0.49	2.44	0.00	0.00	0.92	0.00	0.00	-1.88	0.61	0.00	0.00	0.00	-39.30	604.81	0.00	0.00	0.00	8769.20
08/09/2012 11:06	0.49	2.44	0.00	0.00	0.92	0.00	0.00	-1.56	0.61	0.00	0.00	0.00	-39.30	604.81	0.00	0.00	0.00	8746.10
08/09/2012 11:07	0.49	2.44	0.00	2.80	0.92	0.00	0.00	-1.95	0.61	0.00	0.00	0.00	-39.30	592.85	0.00	0.00	0.00	8752.70
08/09/2012 11:08	0.49	2.44	0.00	0.00	0.92	0.00	0.00	-1.72	0.61	0.00	0.00	0.00	-39.45	602.12	0.00	0.00	0.00	8748.30
08/09/2012 11:09	0.49	2.44	0.00	0.00	0.92	0.00	0.00	-1.72	0.61	0.00	0.00	0.00	-39.45	617.51	0.00	0.00	0.00	8748.30
08/09/2012 11:10	0.49	2.44	0.00	0.40	0.92	0.00	0.00	-3.20	0.61	0.00	0.00	0.00	-39.45	597.97	0.00	0.00	0.00	8758.20
08/09/2012 11:11	0.49	2.44	0.00	0.00	0.92	0.00	0.00	-2.58	0.61	0.00	0.00	0.00	-39.45	609.45	0.00	0.00	0.00	8721.90
08/09/2012 11:12	0.49	2.44	0.00	0.00	0.92	0.00	0.00	-2.58	0.61	0.00	0.00	0.00	-39.45	609.45	0.00	0.00	0.00	8721.90
08/09/2012 11:13	0.49	2.44	0.00	0.00	0.92	0.00	0.00	-1.56	0.61	0.00	0.00	0.00	-39.30	594.80	0.00	0.00	0.00	8763.70
08/09/2012 11:14	0.49	2.44	0.00	0.00	0.92	0.00	0.00	-1.64	0.61	0.00	0.00	0.00	-39.38	597.00	0.00	0.00	0.00	8750.50
08/09/2012 11:15	0.49	2.44	0.00	0.00	0.92	0.00	0.00	-1.64	0.61	0.00	0.00	0.00	-39.38	587.47	0.00	0.00	0.00	8750.50
08/09/2012 11:16	0.49	2.44	0.00	0.00	0.92	0.00	0.00	-3.28	0.61	0.00	0.00	0.00	-39.45	609.45	0.00	0.00	0.00	8734.00
08/09/2012 11:17	0.49	2.44	0.00	0.00	0.92	0.00	0.00	-1.95	0.61	0.00	0.00	0.00	-39.30	596.02	0.00	0.00	0.00	8734.00
08/09/2012 11:18	0.49	2.44	0.00	0.00	0.92	0.00	0.00	-1.95	0.61	0.00	0.00	0.00	-39.30	596.02	0.00	0.00	0.00	8734.00
08/09/2012 11:19	0.49	2.44	0.00	0.00	0.92	0.00	0.00	-2.03	0.61	0.00	0.00	0.00	-39.53	605.54	0.00	0.00	0.00	8751.60
08/09/2012 11:20	0.49	2.44	0.00	0.00	0.92	0.00	0.00	-3.44	0.61	0.00	0.00	0.00	-39.30	603.10	0.00	0.00	0.00	8751.60
08/09/2012 11:21	0.49	2.44	0.00	0.00	0.92	0.00	0.00	-3.44	0.61	0.00	0.00	0.00	-39.30	600.17	0.00	0.00	0.00	8751.60
08/09/2012 11:22	9.28	2.44	0.00	0.00	0.92	0.00	0.00	-1.88	0.61	0.00	0.00	0.00	-39.30	604.81	0.00	0.00	0.00	8735.10
08/09/2012 11:23	9.28	2.44	0.00	0.00	0.92	0.00	0.00	-1.80	0.61	0.00	0.00	0.00	-39.30	597.24	0.00	0.00	0.00	8731.80
08/09/2012 11:24	0.49	2.44	0.00	0.00	0.92	0.00	0.00	-1.72	0.61	0.00	0.00	0.00	-39.30	597.24	0.00	0.00	0.00	8731.80
08/09/2012 11:25	0.49	2.44	0.00	0.00	0.92	0.00	0.00	-2.66	0.61	0.00	0.00	0.00	-39.45	606.28	0.00	0.00	0.00	8747.20
08/09/2012 11:26	0.49	2.44	0.00	0.00	0.92	0.00	0.00	-2.73	0.61	0.00	0.00	0.00	-39.30	602.12	0.00	0.00	0.00	8749.40
08/09/2012 11:27	0.49	2.44	0.00	0.00	0.92	0.00	0.00	-2.73	0.61	0.00	0.00	0.00	-39.30	597.00	0.00	0.00	0.00	8749.40
08/09/2012 11:28	0.49	2.44	0.00	0.00	0.92	0.00	0.00	-2.03	0.61	0.00	0.00	0.00	-39.45	601.15	0.00	0.00	0.00	8751.60
08/09/2012 11:29	0.49	2.44	0.00	0.00	0.92	0.00	0.00	-2.03	0.61	0.00	0.00	0.00	-39.61	603.10	0.00	0.00	0.00	8745.00
08/09/2012 11:30	0.49	2.44	0.00	0.00	0.92	0.00	0.00	-2.19	0.61	0.00	0.00	0.00	-39.61	603.10	0.00	0.00	0.00	8745.00
08/09/2012 11:31	0.49	2.44	0.00	0.00	0.92	0.00	0.00	-1.17	0.61	0.00	0.00	0.00	-39.45	614.82	0.00	0.00	0.00	8732.90
08/09/2012 11:32	0.49	2.44	0.00	0.00	0.92	0.00	0.00	-1.88	0.61	0.00	0.00	0.00	-39.38	605.30	0.00	0.00	0.00	8748.30
08/09/2012 11:33	0.49	2.44	0.00	0.00	0.92	0.00	0.00	-1.88	0.61	0.00	0.00	0.00	-39.38	602.86	0.00	0.00	0.00	8748.30
08/09/2012 11:34	0.49	2.44	0.00	0.00	0.92	0.00	0.00	-2.66	0.61	0.00	0.00	0.00	-39.45	594.07	0.00	0.00	0.00	8751.60
08/09/2012 11:35	0.49	2.44	0.00	0.00	0.92	0.00	0.00	-2.50	0.61	0.00	0.00	0.00	-39.38	595.29	0.00	0.00	0.00	8753.80
08/09/2012 11:36	0.49	2.44	0.00	0.00	0.92	0.00	0.00	-2.50	0.61	0.00	0.00	0.00	-39.38	595.29	0.00	0.00	0.00	8753.80
08/09/2012 11:37	0.49	2.44	0.00	0.00	0.92	0.00	0.00	-2.03	0.61	0.00	0.00	0.00	-39.45	597.97	0.00	0.00	1.00	8763.70
08/09/2012																		

City of Portland
Groundwater Permit G-10124
SCADA Data

08/09/2012 11:43	0.49	2.44	0.00	0.00	0.92	0.00	0.00	-2.03	0.61	0.00	0.00	0.00	-39.30	601.64	0.00	0.00	0.00	8729.60
08/09/2012 11:44	0.49	2.44	0.00	0.00	0.92	0.00	0.00	-1.80	0.61	0.00	0.00	0.00	-39.30	600.90	0.00	0.00	0.00	8767.00
08/09/2012 11:45	0.49	2.44	0.00	0.00	0.92	0.00	0.00	-1.80	0.61	0.00	0.00	0.00	-39.30	600.90	0.00	0.00	1.00	8767.00
08/09/2012 11:46	0.49	2.44	0.00	0.00	0.92	0.00	0.00	-1.72	0.61	0.00	0.00	0.00	-39.45	590.65	0.00	0.00	0.00	8762.40
08/09/2012 11:47	0.49	2.44	0.00	0.00	0.92	0.00	0.00	-2.03	0.61	0.00	0.00	0.00	-39.45	592.11	0.00	0.00	0.00	8741.70
08/09/2012 11:48	0.49	2.44	0.00	0.00	0.92	0.00	0.00	-2.03	0.61	0.00	0.00	0.00	-39.45	592.11	0.00	0.00	0.00	8762.60
08/09/2012 11:49	0.49	2.44	0.00	0.00	0.92	0.00	0.00	-3.05	0.61	0.00	0.00	0.00	-39.38	584.30	0.00	0.00	0.00	8762.60
08/09/2012 11:50	0.49	2.44	0.00	0.00	0.92	0.00	0.00	-2.19	0.61	0.00	0.00	0.00	-39.53	608.47	0.00	0.00	0.00	8770.30
08/09/2012 11:51	0.49	2.44	0.00	0.00	0.92	0.00	0.00	-2.19	0.61	0.00	0.00	0.00	-39.53	597.49	0.00	0.00	0.00	8770.30
08/09/2012 11:52	0.49	2.44	0.00	0.00	0.92	0.00	0.00	-1.64	0.61	0.00	0.00	0.00	-39.53	600.68	0.00	0.00	0.00	8717.50
08/09/2012 11:53	0.49	2.44	0.00	0.00	0.92	0.00	0.00	-1.80	0.61	0.00	0.00	0.00	-39.53	602.12	0.00	0.00	0.00	8757.10
08/09/2012 11:54	0.49	2.44	0.00	0.00	0.92	0.00	0.00	-2.34	0.61	0.00	0.00	0.00	-39.53	602.12	0.00	0.00	0.00	8737.30
08/09/2012 11:55	0.49	2.44	0.00	0.00	0.92	0.00	0.00	-1.41	0.61	0.00	0.00	0.00	-39.61	597.24	0.00	0.00	0.00	8736.20
08/09/2012 11:56	0.49	2.44	0.00	0.00	0.92	0.00	0.00	-1.48	0.61	0.00	0.00	0.00	-39.45	607.01	0.00	0.00	0.00	8708.70
08/09/2012 11:57	0.49	2.44	0.00	0.00	0.92	0.00	0.00	-1.48	0.61	0.00	0.00	0.00	-39.45	592.11	0.00	0.00	0.00	8708.70
08/09/2012 11:58	0.49	2.44	0.00	0.00	0.92	0.00	0.00	-0.78	0.61	0.00	0.00	0.00	-39.38	595.78	0.00	0.00	0.00	8736.20
08/09/2012 11:59	0.49	2.44	0.00	0.00	0.92	0.00	0.00	-2.58	0.61	0.00	0.00	0.00	-39.38	601.39	0.00	0.00	0.00	8730.70
08/09/2012 12:00	0.49	2.44	0.00	0.00	0.92	0.00	0.00	-2.58	0.61	0.00	0.00	0.00	-39.45	601.39	0.00	0.00	0.00	8721.90
08/09/2012 12:01	0.49	2.44	0.00	0.00	0.92	0.00	0.00	-2.27	0.61	0.00	0.00	0.00	-39.38	596.75	0.00	0.00	1.00	8729.60
08/09/2012 12:02	0.49	2.44	0.00	0.00	0.92	0.00	0.00	-2.19	0.61	0.00	0.00	0.00	-39.38	591.87	0.00	0.00	1.00	8741.70
08/09/2012 12:03	0.49	2.44	0.00	0.00	0.92	0.00	0.00	-2.19	0.61	0.00	0.00	0.00	-39.38	591.87	0.00	0.00	1.00	8741.70
08/09/2012 12:04	0.49	2.44	0.00	0.00	0.92	0.00	0.00	-2.19	0.61	0.00	0.00	0.00	-39.53	603.59	0.00	0.00	1.00	8751.60
08/09/2012 12:05	0.49	2.44	0.00	0.00	0.92	0.00	0.00	-1.41	0.61	0.00	0.00	0.00	-39.45	603.59	0.00	0.00	0.00	8742.80
08/09/2012 12:06	0.49	2.44	0.00	0.00	0.92	0.00	0.00	-2.19	0.61	0.00	0.00	0.00	-39.53	603.59	0.00	0.00	0.00	8715.30
08/09/2012 12:07	0.49	2.44	0.00	0.00	0.92	0.00	0.00	-2.81	0.61	0.00	0.00	0.00	-39.69	599.44	0.00	0.00	1.00	8746.10
08/09/2012 12:08	0.49	2.44	0.00	0.40	0.92	0.00	0.00	-2.34	0.61	0.00	0.00	0.00	-39.38	606.76	0.00	0.00	1.00	8738.40
08/09/2012 12:09	0.49	2.44	0.00	0.40	0.92	0.00	0.00	-2.34	0.61	0.00	0.00	0.00	-39.38	593.33	0.00	0.00	1.00	8738.40
08/09/2012 12:10	0.49	2.44	0.20	0.00	0.92	0.00	0.00	-2.34	0.61	0.00	0.00	0.00	-39.45	597.49	0.00	0.00	1.00	8746.10
08/09/2012 12:11	0.49	2.44	0.20	0.00	0.92	0.00	0.00	-2.42	0.61	0.00	0.00	0.00	-39.45	601.39	0.00	0.00	1.00	8756.00
08/09/2012 12:12	0.49	2.44	0.00	0.00	0.92	0.00	0.00	-2.42	0.61	0.00	0.00	0.00	-39.45	601.39	0.00	0.00	1.00	8756.00
08/09/2012 12:13	0.49	2.44	0.00	0.00	0.92	0.00	0.00	-2.19	0.61	0.00	0.00	0.00	-39.53	597.49	0.00	0.00	1.00	8718.60
08/09/2012 12:14	0.49	2.44	0.00	0.00	0.92	0.00	0.00	-1.95	0.61	0.00	0.00	0.00	-39.38	591.87	0.00	0.00	0.00	8752.70
08/09/2012 12:15	0.98	2.44	0.00	0.00	0.92	0.00	0.00	-1.41	0.61	0.00	0.00	0.00	-39.45	591.87	0.00	0.00	0.00	8751.60
08/09/2012 12:16	0.98	2.44	0.00	0.00	0.92	0.00	0.00	-1.80	0.61	0.00	0.00	0.00	-39.38	600.68	0.00	0.00	1.00	8738.40
08/09/2012 12:17	0.98	2.44	0.00	0.00	0.92	0.00	0.00	-1.02	0.61	0.00	0.00	0.00	-39.22	576.49	0.00	0.00	1.00	8745.00
08/09/2012 12:18	0.98	2.44	0.00	0.00	0.92	0.00	0.00	-1.02	0.61	0.00	0.00	0.00	-39.22	576.49	0.00	0.00	1.00	8745.00
08/09/2012 12:19	0.98	2.44	0.20	0.00	0.92	0.00	0.00	-1.64	0.61	0.00	0.00	0.00	-39.45	594.55	0.00	0.00	0.00	8703.20
08/09/2012 12:20	0.98	2.44	0.20	0.00	0.92	0.00	0.00	-2.58	0.61	0.00	0.00	0.00	-39.45	593.58	0.00	0.00	1.00	8737.30
08/09/2012 12:21	0.98	2.44	0.20	0.00	0.92	0.00	0.00	-1.17	0.61	0.00	0.00	0.00	-39.61	593.58	0.00	0.00	1.00	8716.40
08/09/2012 12:22	0.98	2.44	0.00	0.40	0.92	0.00	0.00	-1.56	0.61	0.00	0.00	0.00	-39.30	601.64	0.00	0.00	0.00	8720.80
08/09/2012 12:23	0.98	2.44	0.00	0.00	0.92	0.00	0.00	-2.03	0.61	0.00	0.00	0.00	-39.53	599.68	0.00	0.00	1.00	8734.00
08/09/2012 12:24	0.98	2.44	0.00	0.00	0.92	0.00	0.00	-2.03	0.61	0.00	0.00	0.00	-39.53	602.12	0.00	0.00	1.00	8734.00
08/09/2012 12:25	0.98	2.44	0.00	0.40	0.92	0.00	0.00	-2.19	0.61	0.00	0.00	0.00	-39.45	600.42	0.00	0.00	1.00	8738.40
08/09/2012 12:26	0.98	2.44	0.20	0.00	0.92	0.00	0.00	-2.19	0.61	0.00	0.00	0.00	-39.38	589.18	0.00	0.00	1.00	8738.40
08/09/2012 12:27	0.98	2.44	0.20	0.00	0.92	0.00	0.00	-2.19	0.61	0.00	0.00	0.00	-39.38	589.18	0.00	0.00	1.00	8738.40
08/09/2012 12:28	0.98	2.44	0.00	0.00	0.92	0.00	0.00	-2.34	0.61	0.00	0.00	0.00	-39.38	591.38	0.00	0.00	0.00	8703.20
08/09/2012 12:29	0.98	2.44	0.00	0.00	0.92	0.00	0.00	-1.41	0.61	0.00	0.00	0.00	-39.53	594.55	0.00	0.00	1.00	8739.50
08/09/2012 12:30	0.98	2.44	0.00	0.00	0.92	0.00	0.00	-1.41	0.61	0.00	0.00	0.00	-39.53	594.55	0.00	0.00	1.00	8739.50
08/09/2012 12:31	0.98	2.44	0.00	0.40	0.92	0.00	0.00	-1.64	0.61	0.00	0.00	0.00	-39.53	599.19	0.00	0.00	1.00	8696.60
08/09/2012 12:32	0.98	2.44	0.20	0.00	0.92	0.00	0.00	-2.03	0.61	0.00	0.00	0.00	-39.45	595.29	0.00	0.00	1.00	8727.40
08/09/2012 12:33	0.98	2.44	0.20	0.00	0.92	0.00	0.00	-2.03	0.61	0.00	0.00	0.00	-39.45	599.44	0.00	0.00	1.00	8727.40
08/09/2012 12:34	0.98	2.44	0.00	0.00	0.92	0.00	0.00	-1.17	0.61	0.00	0.00	0.00	-39.38	582.35	0.00	0.00	1.00	8774.70
08/09/2012 12:35	0.98	2.44	0.00	0.00	0.92	0.00	0.00	-2.11	0.61	0.00	0.00	0.00	-39.45	590.16	0.00	0.00	1.00	8729.60
08/09/2012 12:36	0.98	2.44	0.20	0.00	0.92	0.00	0.00	-1.64	0.61	0.00	0.00	0.00	-39.45	590.16	0.00	0.00	1.00	8741.70
08/09/2012 12:37	0.98	2.44	0.20	0.00	0.92	0.00	0.00	-2.19	0.61	0.00	0.00	0.00	-39.38	599.44	0.00	0.00	1.00	8724.10
08/09/2012 12:38	0.98	2.44	0.00	0.00	0.92	0.00	0.00	-3.59	0.61	0.00	0.00	0.00	-39.45	601.88	0.00	0.00	1.00	8761.50
08/09/2012 12:39	0.98	2.44	0.00	0.00	0.92	0.00	0.00	-3.59	0.61	0.00	0.00	0.00	-39.45	604.81	0.00	0.00	1.00	8761.50
08/09/2012 12:40	0.98	2.44	0.00	0.80	0.92	0.00	0.00	-1.48	0.61	0.00	0.00	0.00	-39.38	597.49	0.00	0.00	1.00	8761.50
08/09/2012 12:41	0.98	2.44	0.40	0.00	0.92	0.00	0.00	-2.19	0.61	0.00	0.00	0.00	-39.30	593.58	0.00	0.00	1.00	8754.90
08/09/2012 12:42	0.98	2.44	0.40	0.00	0.92	0.00	0.00	-1.33	0.61	0.00	0.00	0.00	-39.61	593.58	0.00	0.00	1.00	8720.80
08/09/2012 12:43	0.98	2.44	0.00	0.00	0.92	0.00	0.00	-1.17	0.61	0.00	0.00	0.00	-39.45	593.33	0.00	0.00	1.00	8729.60
08/09/2012 12:44	0.98	2.44	0.20	0.80	0.92	0.00	0.00	-1.17	0.61	0.00	0.00	1.10	-39.61	598.22	0.00	0.00	1.00	8729.60
08/09/2012 12:45	0.98	2.44	0.20	0.80	0.92	0.00	0.00	-1.17	0.61	0.00	0.00	1.10	-39.61	591.63	0.00	0.00	1.00	8729.60
08/																		

08/09/2012 12:51	2.44	2.44	0.00	0.40	0.92	0.00	0.00	-1.02	0.61	0.00	0.00	0.00	-39.38	589.92	0.00	0.00	1.00	8730.70
08/09/2012 12:52	2.44	2.44	0.60	0.00	0.92	0.00	0.00	-2.81	0.61	0.00	0.00	0.00	-39.30	593.09	0.00	0.00	1.00	8747.20
08/09/2012 12:53	2.44	2.44	0.40	0.80	0.92	0.00	0.00	-1.80	0.61	0.00	0.00	1.10	-39.53	584.54	0.00	0.00	1.00	8734.00
08/09/2012 12:54	2.44	2.44	0.60	0.40	0.92	0.00	0.00	-1.80	0.61	0.00	0.00	1.10	-39.53	584.54	0.00	0.00	1.00	8734.00
08/09/2012 12:55	2.44	2.44	0.20	0.00	0.92	0.00	0.00	-2.34	0.61	0.00	0.00	2.20	-39.45	584.06	0.00	0.00	1.00	8747.20
08/09/2012 12:56	2.44	2.44	0.20	0.00	0.92	0.00	0.00	-1.25	0.61	0.00	0.00	1.10	-39.38	588.21	0.00	0.00	1.00	8725.20
08/09/2012 12:57	2.44	2.44	0.00	0.00	0.92	0.00	0.00	-1.80	0.61	0.00	0.00	1.10	-39.38	588.21	0.00	0.00	1.00	8742.80
08/09/2012 12:58	2.44	2.44	0.20	0.00	0.92	0.00	0.00	-2.50	0.61	0.00	0.00	1.10	-39.53	597.24	0.00	0.00	1.00	8750.50
08/09/2012 12:59	2.44	2.44	0.60	0.40	0.92	0.00	0.00	-2.27	0.61	0.00	0.00	1.10	-39.38	595.78	0.00	0.00	1.00	8725.20
08/09/2012 13:00	10.74	2.44	0.60	0.40	0.92	0.00	0.00	-2.27	0.61	0.00	0.00	1.10	-39.38	598.46	0.00	0.00	1.00	8725.20
08/09/2012 13:01	1.47	2.44	0.00	0.00	0.92	0.00	0.00	-1.88	0.61	0.00	0.00	2.20	-39.38	582.35	0.00	0.00	1.00	8735.10
08/09/2012 13:02	1.47	2.44	0.20	0.00	0.92	0.00	0.00	0.31	0.61	0.00	0.00	1.10	-39.45	593.09	0.00	2.20	1.00	8720.80
08/09/2012 13:03	1.47	2.44	0.20	0.00	0.92	0.00	0.00	0.31	0.61	0.00	0.00	1.10	-39.45	593.09	0.00	2.20	1.00	8720.80
08/09/2012 13:04	1.47	2.44	0.40	0.00	0.92	0.00	0.00	-1.95	0.61	0.00	0.00	1.10	-39.38	588.94	0.00	2.20	1.00	8714.20
08/09/2012 13:05	1.47	2.44	0.40	0.00	0.92	0.00	0.00	-2.03	0.61	0.00	0.00	2.20	-39.38	596.75	0.00	0.00	1.00	8721.90
08/09/2012 13:06	1.47	2.44	0.40	0.00	0.92	0.00	0.00	-3.59	0.61	0.00	0.00	2.20	-39.38	596.75	0.00	0.00	1.00	8725.20
08/09/2012 13:07	1.47	2.44	0.20	0.00	0.92	0.00	0.00	-1.95	0.61	0.00	0.00	1.10	-39.53	593.58	0.00	0.00	1.00	8706.50
08/09/2012 13:08	11.23	2.44	0.40	0.00	0.92	0.00	0.00	-2.58	0.61	0.00	0.00	1.10	-39.38	592.60	0.00	0.00	1.00	8720.80
08/09/2012 13:09	3.42	2.44	0.40	0.00	0.92	0.00	0.00	-2.58	0.61	0.00	0.00	1.10	-39.45	592.60	0.00	0.00	1.00	8720.80
08/09/2012 13:10	3.42	2.44	0.00	0.00	0.92	0.00	0.00	-2.50	0.61	0.00	0.00	2.20	-39.38	602.12	0.00	0.00	1.00	8746.10
08/09/2012 13:11	3.42	2.44	0.00	0.00	0.92	0.00	0.00	-2.50	0.61	0.00	0.00	1.10	-39.45	592.60	0.00	0.00	1.00	8710.90
08/09/2012 13:12	3.42	2.44	0.60	0.00	0.92	0.00	0.00	-2.50	0.61	0.00	0.00	4.40	-39.45	592.60	0.00	0.00	1.00	8710.90
08/09/2012 13:13	3.42	2.44	0.60	0.00	0.92	0.00	0.00	-1.17	0.61	0.00	0.00	2.20	-39.53	592.60	0.00	0.00	1.00	8753.80
08/09/2012 13:14	3.42	2.44	0.60	0.00	0.92	0.00	0.00	-1.17	0.61	0.00	0.00	1.10	-39.61	588.45	0.00	4.40	1.00	8705.40
08/09/2012 13:15	3.42	2.44	0.60	0.00	0.92	0.00	0.00	-1.17	0.61	0.00	0.00	1.10	-39.53	588.45	0.00	0.00	1.00	8719.70
08/09/2012 13:16	3.42	2.44	0.40	0.40	0.92	0.00	0.00	-1.64	0.61	0.00	0.00	3.30	-39.45	597.00	0.00	0.00	1.00	8709.80
08/09/2012 13:17	3.42	2.44	0.60	0.00	0.92	0.00	0.00	-2.66	0.61	0.00	0.00	1.10	-39.38	591.38	0.00	0.00	1.00	8736.20
08/09/2012 13:18	3.42	2.44	0.60	0.00	0.92	0.00	0.00	-2.66	0.61	0.00	0.00	1.10	-39.38	597.49	0.00	0.00	1.00	8736.20
08/09/2012 13:19	3.42	2.44	0.60	0.00	0.92	0.00	0.00	-2.73	0.61	0.00	0.00	1.10	-39.38	589.67	0.00	0.00	1.00	8736.20
08/09/2012 13:20	3.42	2.44	0.40	0.00	0.92	0.00	0.00	-1.88	0.61	0.00	0.00	1.10	-39.45	593.82	0.00	0.00	1.00	8713.10
08/09/2012 13:21	3.42	2.44	0.40	0.00	0.92	0.00	0.00	-1.88	0.61	0.00	0.00	1.10	-39.45	593.82	0.00	0.00	1.00	8728.30
08/09/2012 13:22	3.42	2.44	1.20	0.00	0.92	0.00	0.00	-2.50	0.61	0.00	0.00	2.20	-39.53	599.93	0.00	5.50	1.00	8738.40
08/09/2012 13:23	3.42	2.44	0.60	0.00	0.92	0.00	0.00	-1.80	0.61	0.00	0.00	1.10	-39.53	590.40	0.00	5.50	1.00	8741.70
08/09/2012 13:24	3.42	2.44	0.60	0.00	0.92	0.00	0.00	-1.80	0.61	0.00	0.00	1.10	-39.53	604.57	0.00	5.50	1.00	8741.70
08/09/2012 13:25	3.42	2.44	0.40	0.40	0.92	0.00	0.00	-2.03	0.61	0.00	0.00	1.10	-39.38	593.09	0.00	5.50	1.00	8741.70
08/09/2012 13:26	3.42	2.44	0.40	0.80	0.92	0.00	0.00	-1.95	0.61	0.00	0.00	3.30	-39.38	593.33	0.00	0.00	1.00	8760.40
08/09/2012 13:27	3.42	2.44	0.40	1.20	0.92	0.00	0.00	-1.64	0.61	0.00	0.00	3.30	-39.38	593.33	0.00	2.20	1.00	8760.40
08/09/2012 13:28	3.42	2.44	1.00	0.00	0.92	0.00	0.00	-1.56	0.61	0.00	0.00	2.20	-39.38	590.40	0.00	2.20	1.00	8760.40
08/09/2012 13:29	3.42	2.44	1.00	0.80	0.92	0.00	0.00	-1.95	0.61	0.00	0.00	2.20	-39.38	595.04	0.00	4.40	1.00	8721.90
08/09/2012 13:30	3.42	2.44	1.00	0.80	0.92	0.00	0.00	-1.95	0.61	0.00	0.00	2.20	-39.38	599.19	0.00	4.40	1.00	8721.90
08/09/2012 13:31	3.42	2.44	1.00	0.40	0.92	0.00	0.00	-2.81	0.61	0.00	0.00	3.30	-39.45	586.01	0.00	0.00	1.00	8736.20
08/09/2012 13:32	3.42	2.44	0.80	0.80	0.92	0.00	0.00	-1.88	0.61	0.00	0.00	3.30	-39.38	597.00	0.00	0.00	1.00	8716.40
08/09/2012 13:33	3.42	2.44	0.40	0.40	0.92	0.00	0.00	-1.88	0.61	0.00	0.00	1.10	-39.38	597.00	0.00	0.00	1.00	8716.40
08/09/2012 13:34	3.42	2.44	0.80	0.40	0.92	0.00	0.00	-3.13	0.61	0.00	0.00	1.10	-39.53	589.43	0.00	4.40	1.00	8699.90
08/09/2012 13:35	3.42	2.44	1.20	0.00	0.92	0.00	0.00	-3.13	0.61	0.00	0.00	1.10	-39.38	588.69	0.00	0.00	1.00	8720.80
08/09/2012 13:36	3.42	2.44	1.20	0.40	0.92	0.00	0.00	-2.81	0.61	0.00	0.00	1.10	-39.38	588.69	0.00	5.50	1.00	8719.70
08/09/2012 13:37	3.42	2.44	0.40	0.80	0.92	0.00	0.00	-2.81	0.61	0.00	0.00	2.20	-39.38	601.88	0.00	4.40	1.00	8719.70
08/09/2012 13:38	3.42	2.44	0.40	1.20	0.92	0.00	0.00	-2.81	0.61	0.00	0.00	2.20	-39.45	590.65	0.00	0.00	1.00	8729.60
08/09/2012 13:39	3.42	2.44	0.40	1.20	0.92	0.00	0.00	-2.81	0.61	0.00	0.00	2.20	-39.45	588.69	0.00	0.00	1.00	8729.60
08/09/2012 13:40	3.42	2.44	0.80	0.80	0.92	0.00	0.00	-3.05	0.61	0.00	0.00	2.20	-39.38	590.89	0.00	0.00	1.00	8734.00
08/09/2012 13:41	3.42	2.44	1.40	0.80	0.92	0.00	0.00	-1.56	0.61	0.00	0.00	2.20	-39.22	594.55	0.00	0.00	1.00	8721.90
08/09/2012 13:42	3.42	2.44	1.60	0.40	0.92	0.00	0.00	-1.56	0.61	0.00	0.00	3.30	-39.22	594.55	0.00	0.00	1.00	8721.90
08/09/2012 13:43	3.42	2.44	1.00	0.40	0.92	0.00	0.00	-1.95	0.61	0.00	0.00	2.20	-39.38	587.47	0.00	5.50	1.00	8693.30
08/09/2012 13:44	3.42	2.44	0.80	0.80	0.92	0.00	0.00	-2.58	0.61	0.00	0.00	2.20	-39.38	581.13	0.00	0.00	1.00	8715.30
08/09/2012 13:45	3.42	2.44	0.80	0.80	0.92	0.00	0.00	-1.56	0.61	0.00	0.00	2.20	-39.38	581.13	0.00	3.30	1.00	8716.60
08/09/2012 13:46	3.42	2.44	1.00	1.20	0.92	0.00	0.00	-2.11	0.61	5.31	0.00	1.10	-39.45	589.92	0.00	3.30	1.00	8718.80
08/09/2012 13:47	3.42	2.44	1.60	0.80	0.92	0.00	0.00	-2.42	0.61	0.00	0.00	3.30	-39.30	592.11	0.00	3.30	1.00	8734.00
08/09/2012 13:48	3.42	2.44	1.60	0.80	0.92	0.00	0.00	-2.42	0.61	0.00	0.00	3.30	-39.30	588.21	0.00	3.30	1.00	8734.00
08/09/2012 13:49	3.42	2.44	1.40	1.20	0.92	0.00	0.00	-1.95	0.61	0.00	0.00	2.20	-39.38	591.14	0.00	0.00	1.00	8734.00
08/09/2012 13:50	3.42	2.44	1.20	0.40	0.92	0.00	0.00	-0.70	0.61	0.00	0.00	2.20	-39.61	583.57	0.00	0.00	1.00	8719.70
08/09/2012 13:51	3.42	2.44	1.20	0.40	0.92	0.00	0.00	-0.70	0.61	0.00	0.00	2.20	-39.61	583.57	0.00	0.00	1.00	8743.90
08/09/2012 13:52	3.42	2.44	1.00	0.80	0.92	0.00	0.00	-1.48	0.61	0.00	0.00	1.10	-39.61	603.10	0.00	0.00	1.00	8743.90
08/09/2012 13:53	3.42	2.44	1.00	0.80	0.92	0.00	0.00	-1.95	0.61	0.00	0.00	4.40	-39.53	598.71	0.00	4.40	1.00	8725.20
08/09/20																		

(Partial printout)

City of Portland
Groundwater Permit G-10124
SCADA Data

PWB Well 19

08/09/2012 13:59	3.42	2.44	1.40	1.20	0.92	0.00	0.00	-2.19	0.61	0.00	0.00	4.40	-39.69	585.03	0.00	4.40	1.00	8736.20
08/09/2012 14:00	3.42	2.44	1.40	1.20	0.92	0.00	0.00	-2.19	0.61	0.00	0.00	4.40	-39.69	597.24	0.00	4.40	1.00	8736.20
08/09/2012 14:01	3.42	2.44	1.40	0.40	0.92	0.00	0.00	-1.88	0.61	0.00	0.00	3.30	-39.53	589.18	0.00	0.00	1.00	8720.80
08/09/2012 14:02	3.42	2.44	1.00	0.00	0.92	0.00	0.00	-3.13	0.61	0.00	0.00	4.40	-39.38	604.57	0.00	7.70	1.00	8734.00
08/09/2012 14:03	3.42	2.44	1.40	0.00	0.92	0.00	0.00	-1.33	0.61	0.00	0.00	4.40	-39.38	604.57	0.00	7.70	1.00	8734.00
08/09/2012 14:04	3.42	2.44	1.40	0.80	0.92	0.00	0.00	-2.89	0.61	0.00	0.00	1.10	-39.53	585.28	0.00	7.70	1.00	8734.00
08/09/2012 14:05	3.42	2.44	1.40	0.40	0.92	0.00	0.00	-2.11	0.61	0.00	0.00	2.20	-39.38	595.29	0.00	7.70	1.00	8712.00
08/09/2012 14:06	3.42	2.44	1.40	0.40	0.92	0.00	0.00	-2.11	0.61	0.00	0.00	2.20	-39.38	587.47	0.00	7.70	1.00	8712.00
08/09/2012 14:07	3.42	2.44	1.40	0.40	0.92	0.00	0.00	-1.09	0.61	0.00	0.00	1.10	-39.38	585.52	0.00	6.60	1.00	8718.60
08/09/2012 14:08	3.42	2.44	1.40	0.40	4.03	0.00	0.00	-2.19	0.61	0.00	0.00	4.40	-39.45	590.89	0.00	0.00	1.00	8718.60
08/09/2012 14:09	3.42	2.44	1.20	0.80	4.03	0.00	0.00	-2.19	0.61	0.00	0.00	4.40	-39.45	590.89	0.00	0.00	1.00	8718.60
08/09/2012 14:10	3.42	2.44	1.20	0.80	4.03	0.00	0.00	-1.56	0.61	0.00	0.00	2.20	-39.53	590.65	0.00	0.00	1.00	8699.90
08/09/2012 14:11	3.42	2.44	1.80	0.80	4.03	0.00	0.00	-2.03	0.61	0.00	0.00	2.20	-39.45	588.69	0.00	0.00	1.00	8723.00
08/09/2012 14:12	3.42	2.44	1.80	0.80	4.03	0.00	0.00	-1.17	0.61	0.00	0.00	2.20	-39.53	588.69	0.00	6.60	1.00	8724.10
08/09/2012 14:13	3.42	2.44	1.60	0.80	4.03	0.00	0.00	-1.48	0.61	0.00	0.00	2.20	-39.53	590.89	0.00	0.00	1.00	8735.10
08/09/2012 14:14	3.42	2.44	1.60	0.40	4.03	0.00	0.00	-2.27	0.61	2.25	0.00	1.10	-39.45	603.35	0.00	0.00	1.00	8721.90
08/09/2012 14:15	3.42	2.44	1.60	0.40	4.03	0.00	0.00	-2.27	0.61	0.00	0.00	1.10	-39.45	586.50	0.00	0.00	1.00	8721.90
08/09/2012 14:16	3.42	2.44	1.60	0.80	4.03	0.00	0.00	-2.27	0.61	0.00	0.00	4.40	-39.38	581.37	0.00	0.00	1.00	8726.30
08/09/2012 14:17	3.42	2.44	1.40	0.80	0.92	0.00	0.00	-3.44	0.61	0.00	0.00	2.20	-39.53	593.09	0.00	7.70	1.00	8736.20
08/09/2012 14:18	3.42	2.44	2.00	0.80	0.92	0.00	0.00	-3.44	0.61	0.00	0.00	2.20	-39.53	593.09	0.00	7.70	1.00	8736.20
08/09/2012 14:19	3.42	2.44	1.60	0.40	0.92	0.00	0.00	-1.72	0.61	0.00	0.00	3.30	-39.45	586.99	0.00	0.00	1.00	8705.40
08/09/2012 14:20	3.42	2.44	1.40	0.80	0.92	0.00	0.00	-1.72	0.61	0.00	0.00	3.30	-39.61	587.47	0.00	0.00	1.00	8734.00
08/09/2012 14:21	3.42	2.44	1.40	0.80	0.92	0.00	0.00	-2.03	0.61	0.00	0.00	3.30	-39.45	587.47	0.00	0.00	1.00	8732.90
08/09/2012 14:22	3.42	2.44	1.80	1.20	0.92	0.00	0.00	-2.19	0.61	0.00	0.00	4.40	-39.45	590.40	0.00	0.00	1.00	8735.10
08/09/2012 14:23	3.42	2.44	1.40	0.40	0.92	0.00	0.00	-1.64	0.61	0.00	0.00	2.20	-39.30	585.03	0.00	9.90	1.00	8707.60
08/09/2012 14:24	3.42	2.44	1.40	0.40	0.92	0.00	0.00	-1.64	0.61	0.00	0.00	2.20	-39.30	594.80	0.00	9.90	1.00	8707.60
08/09/2012 14:25	3.42	2.44	1.80	1.20	0.92	0.00	0.00	-1.72	0.61	0.00	0.00	2.20	-39.45	591.38	0.00	7.70	1.00	8735.10
08/09/2012 14:26	3.42	2.44	2.20	0.40	0.92	0.00	0.00	-2.27	0.61	0.00	0.00	3.30	-39.53	594.31	0.00	0.00	1.00	8730.70
08/09/2012 14:27	3.42	2.44	2.40	0.40	0.92	0.00	0.00	-2.27	0.61	0.00	0.00	4.40	-39.53	594.31	0.00	0.00	1.00	8730.70
08/09/2012 14:28	3.42	2.44	1.60	1.20	0.92	0.00	0.00	-1.72	0.61	0.00	0.00	4.40	-39.53	591.63	0.00	0.00	1.00	8745.00
08/09/2012 14:29	3.42	2.44	1.60	0.80	0.92	0.00	0.00	-1.33	0.61	0.00	0.00	4.40	-39.45	586.01	0.00	0.00	1.00	8719.70
08/09/2012 14:30	3.42	2.44	1.60	0.80	0.92	0.00	0.00	-1.41	0.61	0.00	0.00	4.40	-39.53	586.01	0.00	0.00	1.00	8728.50
08/09/2012 14:31	3.42	2.44	1.60	0.80	0.92	0.00	0.00	-1.56	0.61	0.00	0.00	2.20	-39.38	588.69	0.00	7.70	1.00	8728.50
08/09/2012 14:32	3.42	2.44	2.20	0.00	0.92	0.00	0.00	-1.95	0.61	0.00	0.00	3.30	-39.45	589.92	0.00	0.00	1.00	8728.50
08/09/2012 14:33	3.42	2.44	2.20	0.00	0.92	0.00	0.00	-1.95	0.61	0.00	0.00	3.30	-39.45	589.92	0.00	0.00	1.00	8728.50
08/09/2012 14:34	3.42	2.44	1.80	0.80	0.92	0.00	0.00	-2.97	0.61	0.00	0.00	3.30	-39.53	597.24	0.00	0.00	1.00	8715.30
08/09/2012 14:35	3.42	2.44	1.80	0.80	0.92	0.00	0.00	-2.27	0.61	0.00	0.00	3.30	-39.53	593.58	0.00	5.50	1.00	8741.70
08/09/2012 14:36	3.42	2.44	1.60	0.40	0.92	0.00	0.00	-2.27	0.61	0.00	0.00	6.60	-39.53	593.58	0.00	5.50	1.00	8741.70
08/09/2012 14:37	3.42	2.44	2.00	0.80	0.92	0.00	0.00	-2.81	0.61	0.00	0.00	6.60	-39.45	591.63	0.00	0.00	1.00	8729.60
08/09/2012 14:38	3.42	2.44	1.80	0.80	0.92	0.00	0.00	-2.27	0.61	0.00	0.00	2.20	-39.45	582.35	0.00	0.00	1.00	8702.10
08/09/2012 14:39	3.42	2.44	1.80	0.80	0.92	0.00	0.00	-2.27	0.61	0.00	0.00	2.20	-39.61	582.35	0.00	0.00	1.00	8702.10
08/09/2012 14:40	3.42	2.44	2.20	1.20	0.92	0.00	0.00	-2.27	0.61	0.00	0.00	4.40	-39.38	587.23	0.00	0.00	1.00	8718.60
08/09/2012 14:41	3.42	2.44	1.40	0.80	0.92	0.00	0.00	-1.41	0.61	0.00	0.00	2.20	-39.53	596.26	0.00	0.00	1.00	8701.00
08/09/2012 14:42	3.42	2.44	1.40	0.80	0.92	0.00	0.00	-1.41	0.61	0.00	0.00	2.20	-39.53	597.97	0.00	0.00	1.00	8701.00
08/09/2012 14:43	3.42	2.44	2.20	0.80	0.92	0.00	0.00	-4.45	0.61	0.00	0.00	2.20	-39.38	592.36	0.00	0.00	1.00	8713.10
08/09/2012 14:44	3.42	2.44	2.20	1.60	0.92	0.00	0.00	-2.42	0.61	0.00	0.00	2.20	-39.38	591.14	0.00	0.00	1.00	8714.20
08/09/2012 14:45	3.42	2.44	2.20	1.60	0.92	0.00	0.00	-2.42	0.61	0.00	0.00	2.20	-39.38	591.14	0.00	0.00	1.00	8714.20
08/09/2012 14:46	3.42	2.44	2.20	1.60	0.92	0.00	0.00	-1.25	0.61	0.00	0.00	3.30	-39.38	591.87	0.00	0.00	1.00	8731.80
08/09/2012 14:47	3.42	2.44	1.80	1.20	0.92	0.00	0.00	-3.13	0.61	0.00	0.00	4.40	-39.45	598.71	0.00	0.00	1.00	8745.00
08/09/2012 14:48	3.42	2.44	1.80	1.20	0.92	0.00	0.00	-3.13	0.61	0.00	0.00	4.40	-39.45	578.24	0.00	0.00	1.00	8745.00
08/09/2012 14:49	3.42	2.44	2.20	0.40	0.92	0.00	0.00	-3.05	0.61	0.00	0.00	3.30	-39.45	596.02	0.00	0.00	1.00	8731.80
08/09/2012 14:50	3.42	2.44	1.60	1.60	0.92	0.00	0.00	-1.56	0.61	0.00	0.00	2.20	-39.38	286.66	0.00	0.00	1.00	8731.80
08/09/2012 14:51	3.42	2.44	1.60	1.60	0.92	0.00	0.00	-1.56	0.61	0.00	0.00	2.20	-39.38	286.66	0.00	0.00	1.00	8743.90
08/09/2012 14:52	3.42	2.44	2.60	1.20	0.92	0.00	0.00	-1.64	0.61	0.00	0.00	4.40	-39.45	2.44	0.00	0.00	1.00	8728.30
08/09/2012 14:53	3.42	10.74	2.00	1.20	0.92	0.00	0.00	-2.42	0.61	0.00	0.00	5.50	-39.61	2.44	0.00	0.00	1.00	5370.20
08/09/2012 14:54	3.42	10.74	2.00	1.20	0.92	0.00	0.00	-2.42	0.61	0.00	0.00	2.20	-39.61	2.44	0.00	0.00	1.00	5370.20
08/09/2012 14:55	3.42	10.74	1.80	1.20	0.92	0.00	0.00	-1.88	0.61	0.00	0.00	3.30	-39.61	2.44	0.00	6.60	1.00	0.00
08/09/2012 14:56	3.42	10.74	1.80	0.00	0.92	0.00	0.00	-3.05	0.61	0.00	0.00	4.40	-39.38	2.44	0.00	0.00	1.00	0.00
08/09/2012 14:57	3.42	10.74	1.80	0.00	0.92	0.00	0.00	-3.05	0.61	0.00	0.00	3.30	-39.38	2.44	0.00	0.00	1.00	0.00
08/09/2012 14:58	3.42	10.74	1.80	1.60	0.92	0.00	0.00	-1.64	0.61	0.00	0.00	4.40	-39.38	2.44	0.00	5.50	1.00	0.00
08/09/2012 14:59	3.42	10.74	2.40	0.80	0.92	0.00	0.00	-1.64	0.61	0.00	0.00	2.20	-39.45	2.44	0.00	0.00	1.00	0.00
08/09/2012 15:00	3.42	10.74	2.40	0.80	0.92	0.00	0.00	-1.64	0.61	0.00	0.00	2.20	-39.61	2.44	0.00	0.00	1.00	0.00

4 Hour Average 10:40 to 14:40 (GPM)

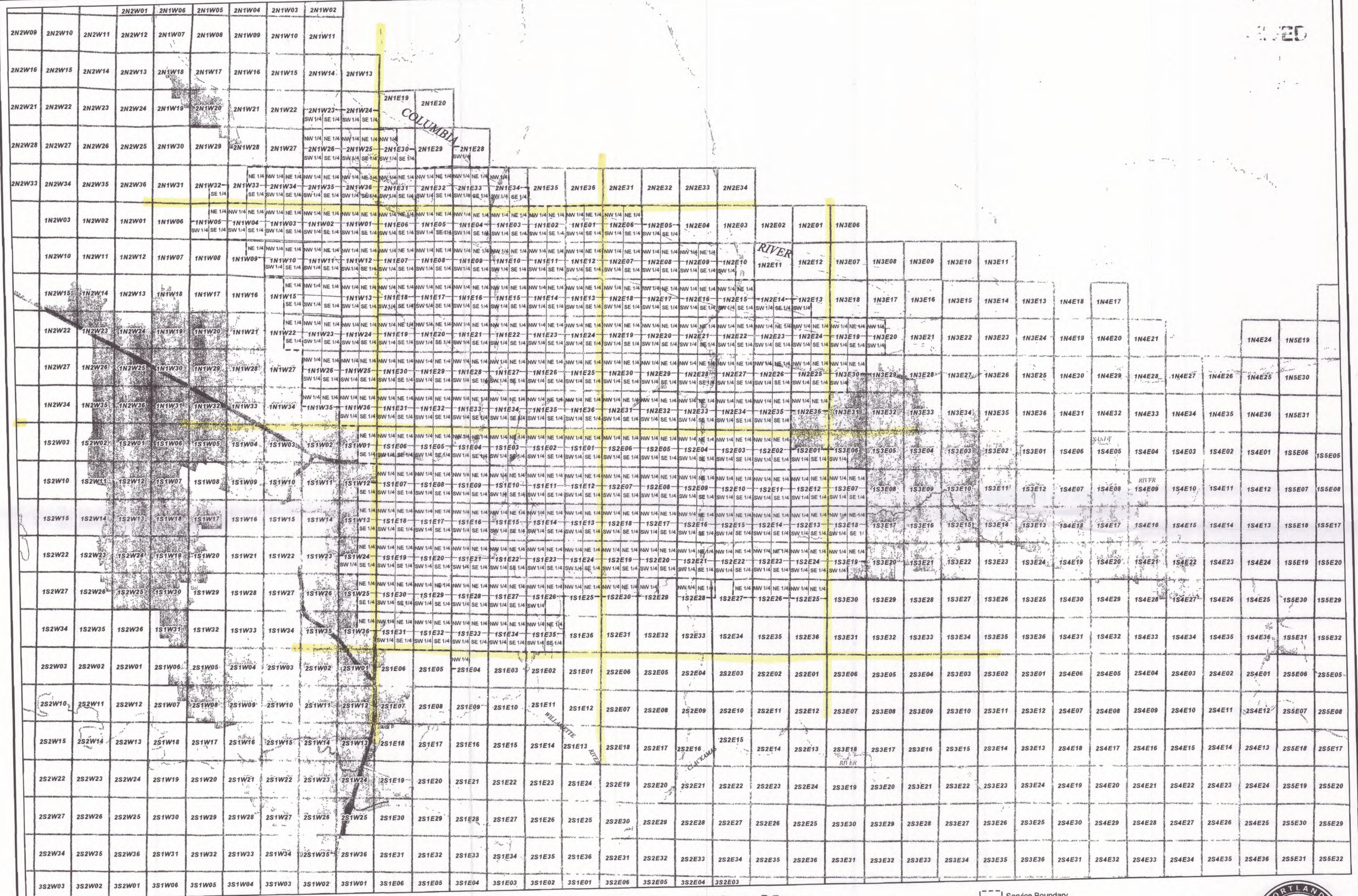
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SALEM, OR

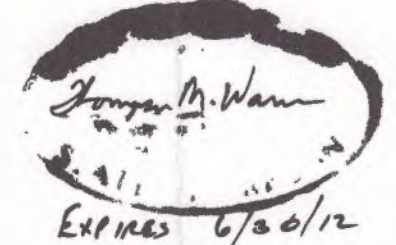
MAR 21 2013

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3 # 12W124

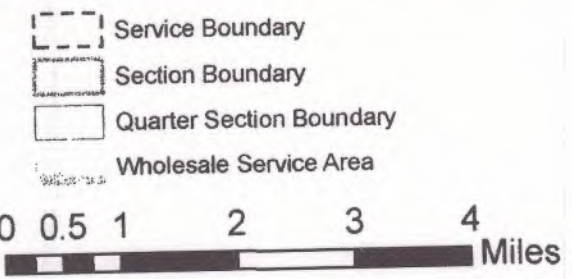


Map Prepared by:
Portland Water Bureau
Records/GIS Branch
1120 SW 5th Ave.
Portland, Oregon 97204-1926
www.PortlandOnline.com/Water

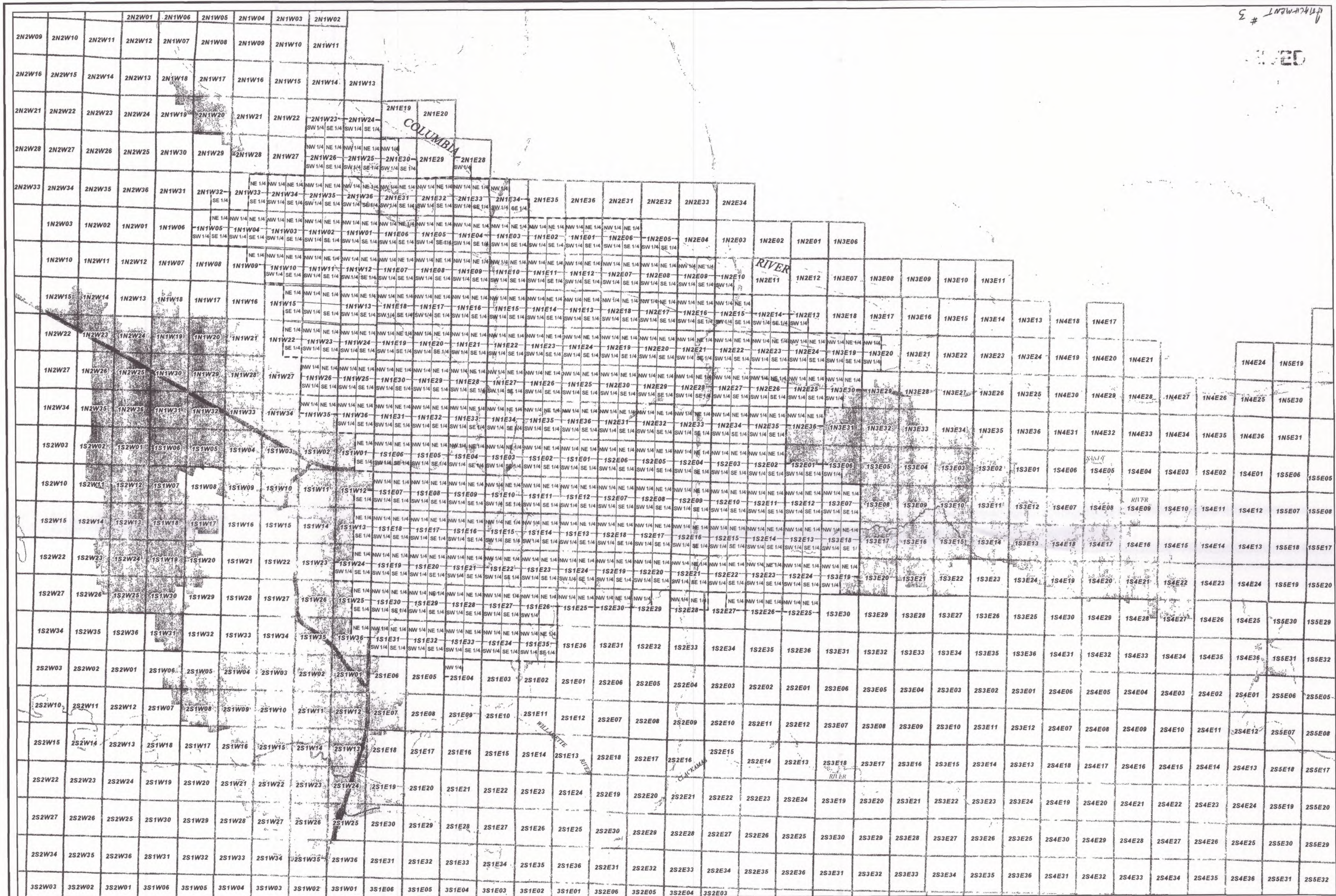


Place of Use Map Portland Water Bureau Permit G-10124

April 2012



COBU MAP # 682



Place of Use Map Portland Water Bureau Permit G-10124

April 2012

- Service Boundary
- Section Boundary
- Quarter Section Boundary
- Wholesale Service Area

0 0.5 1 2 3 4 Miles



COBU MAP # 682

Completion Checklist for Claims of Beneficial Use

Application # G-10906
Date Received 5-2-2012
CWRE Name Thom Warren
File Marked _____
Oversized Map # 682
Reviewer RCK

Transfer # _____
Claim Logged _____

Map Review:

- ☒ Map on polyester film (OAR 690-014-0170(1) & 310-0050(1)(b))
- ☒ Application & permit #; or transfer # (OAR 690-014-0100(1))
- ☒ Disclaimer (OAR 690-014-0170(5))
- ☒ North arrow (OAR 690-310-0050(2)(c))
- ☒ CWRE stamp and signature (OAR 690-014 & 310-0050)
- ☒ Appropriate scale (1" = 1320', 1" = 400', or the original full-size scale of the county assessor map) (014 & 310)
- ☒ Township, range, section, and tax lot numbers (OAR 690-310-0050(4))
- ☒ Source illustrated if surface water (OAR 690-014-0170(3))
- ☒ Point(s) of diversion or appropriation (illustrated) (OAR 690-014(4) & 690-310-0050)
- ☒ Point(s) of diversion or appropriation (coordinates) (OAR 690-014(4) & 690-310-0050)
- ☒ Conveyance structures illustrated (pump, pipelines, ditches, etc.) (OAR 690-310-0050)
- ☒ Description of the location, in relation to the point of diversion or appropriation, of any fish screens, by-pass devices, and measuring devices required (OAR 690-014-0170(4))
- ☒ Place of use (1/4 1/4, or projected 1/4 1/4 lines within DLCs, or Gov Lots; if irrigation, # of acres in each subdivision; if for domestic or human consumption, location of dwelling or spigot) (OAR 690-310-0050, 690-014, 690-380-6010)

Report Review:

- ☒ On form or format provided by the Department (OAR 690-014-0100(1))
- ☒ Application & permit #; or transfer # (OAR 690-014)
- ☒ Ownership information (OAR 690-014) - METRO?
- ☒ Date of survey (OAR 690-014)
- ☒ Person interviewed (OAR 690-014)
- ☒ County (OAR 690-014)
- ☒ Description of conveyances system (from POD to POU) (OAR 690-014-0100)
- ☒ Source(s) of water (OAR 690-014-0100)
- ☒ Place of use location (OAR 690-014-0100)
- ☒ Type of use (OAR 690-014-0100)
- ☒ Extent of use (OAR 690-014-0100)
- ☒ Rate and Duty (OAR 690-014-0100)
- ☒ Diversion rate for each use (OAR 690-014-0100)
- ☒ Diversion works description (pump make, serial model, capacity, and description) (OAR 690-014-0100)
- ☒ System capacity (OAR 690-014-0100)
 - ☒ Calculated capacity of system (required)
 - ☐ Measured amount of use (optional)
- ☐ Permit/Transfer Final Order Conditions (OAR 690-014-0100)
 - ☐ Time limits
 - ☐ Initial water level measurements
 - ☐ Annual static water level measurements
 - ☐ Measurement, recording, and reporting
 - ☒ Meter/measuring device
 - ☐ Water use reporting
 - ☐ Fish screening and/or by-pass
 - ☐ Pump test (ground water)
 - ☐ Other conditions
- ☒ CWRE stamp and signature (OAR 690-014-0100)
- ☒ Signature(s) of permittee of transfer holder (OAR 690-014-0100)

DEF = deficient

N/A = Not Applicable

S:\groups\wr\certs\Resource Center\Forms_Checklists_Mailing Instructions\COBU Checklist 1-11-2012.rtf

Certificate Issuance Processing Checklist

☒ Map and COBU reviewed
☐ Conflict check Any Conflicts? _____
☐ Check for ownership

Staff Recommendations:

_____ Proof to the Satisfaction has been established to the full extent as described in the permit or transfer order.

_____ Proof to the Satisfaction has been not been established to the full extent as described in the permit or transfer order and the right should be limited as follows: _____

_____ Proof to the Satisfaction has not been established for the following reasons: _____

Proposed Actions:
Send letter requesting the following items/information: _____
Send letter recommending extension to cure deficiencies: _____

Can certificate be processed further?

_____ Yes

If "Yes":

_____ Proposed
_____ Final

Certificate # _____

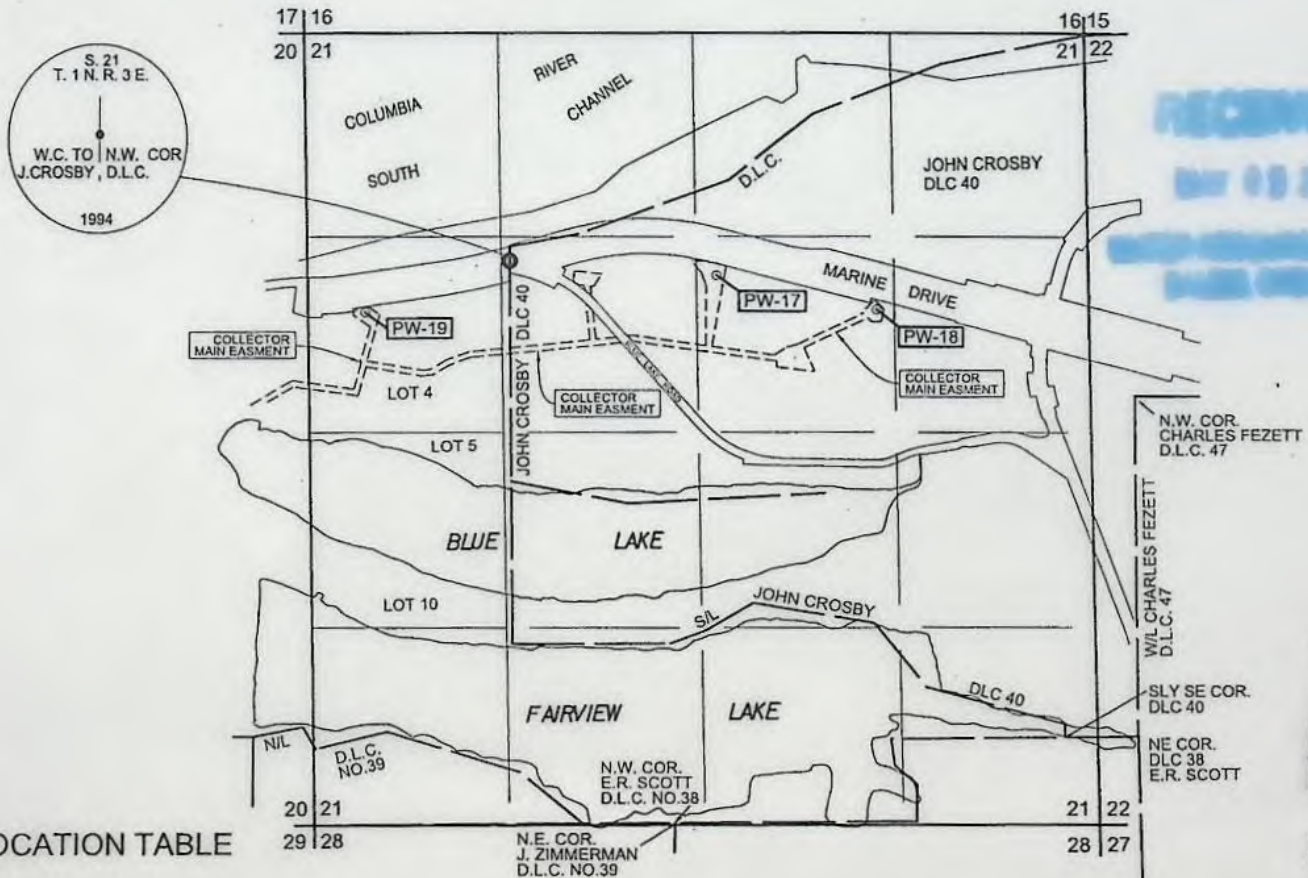
Mailing list:

Proposed:

Final:

CLAIM OF BENEFICIAL USE POA LOCATION MAP

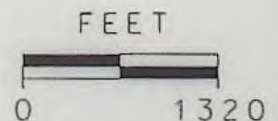
APPLICATION G-10906 PERMIT G-10124
SECTION 21, TOWNSHIP 1 NORTH, RANGE 3 EAST,
WILLAMETTE MERIDIAN, MULTNOMAH COUNTY,
CITY OF PORTLAND, OREGON



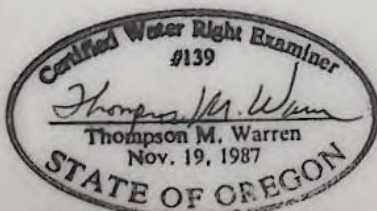
POA LOCATION TABLE

POA	DIST	DIST
PW17	1390' E	140' S
PW18	2450' E	400' S
PW19	990' W	320' S

THE PURPOSE OF THIS MAP IS TO IDENTIFY THE LOCATION OF THE WATER RIGHT.
IT IS NOT INTENDED TO PROVIDE INFORMATION RELATIVE TO THE LOCATION OF
PROPERTY OWNERSHIP BOUNDARY LINES.



ALL FROM THE WITNESS CORNER
TO THE NW CORNER JOHN CROSBY
DLC 40, A BRASS MONUMENT AS SHOWN



Expires 6/30/12



PORTLAND WATER BUREAU

FINAL PROOF SURVEY
PW17, 18 & 19

DATE: 2/27/2012

N1/2 of Sec. 21, T1N, R3E

DRAWN BY: THA

SCALE: 1" = 1320 FT.

ATTACHMENT #2

**CLAIM OF
BENEFICIAL USE
for Permits claiming more
than 0.1 cfs and All Transfers**



Oregon Water Resources Department
725 Summer Street NE, Suite A
Salem, Oregon 97301-1266
(503) 986-0900
www.wrd.state.or.us

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No fee is required for submitting this form for a transfer. **WATER RESOURCES DEPT
SALEM, OREGON**

A fee of \$150 must accompany this form to be accepted for permits
with a priority date of July 9, 1987, or later. (ORS 536.050(1))

A separate form shall be completed for each permit.

In cases where a permit has been amended through the permit amendment process, a separate claim for the permit amendment is not required. Incorporate the permit amendment into the claim for the permit.

This form is subject to revision. **Begin each new claim** by checking for a new version of this form at:
http://www.wrd.state.or.us/OWRD/WR/cwre_info.shtml#.

The completion of this form is required by OAR 690-014-0100(1) and 690-014-0110(4).

Please type or print in dark ink. If this form is found to contain errors or omissions, it may be returned to you. **Every item must have a response.** If any requested information does not apply to the claim, insert "NA." **Do not delete or alter any section of this form unless directed by the form.** The Department may require the submittal of additional information from any water user or authorized agent.

If you have questions regarding the completion of this form, please call 503-986-0900 and ask for the Certificate Section.

The Department has a program that allows it to enter into a voluntary agreement with an applicant for expedited services. Under such an agreement, the applicant pays the cost to hire additional staff that would not otherwise be available. This program means a certificate may be issued in about a month. For more information on this program see
http://www.wrd.state.or.us/OWRD/mgmt_reimbursement_authority.shtml.

**SECTION 1
GENERAL INFORMATION**

1. File Information

APPLICATION # (G, R, S or T)	PERMIT # (IF APPLICABLE)	PERMIT AMENDMENT # (IF APPLICABLE)
G-10906	G-10124	

2. Property Owner (current owner information)

APPLICANT/BUSINESS NAME METRO, a Municipal Corporation of The State of Oregon		PHONE NO.	ADDITIONAL CONTACT NO.
ADDRESS 600 NE Grand Avenue			
CITY Portland	STATE OREGON	ZIP 97232-2736	E-MAIL

If the current property owner is not the permit or transfer holder of record, it is recommended that an assignment be filed with the Department. **The COBU must be signed by each permit or transfer holder of record.**

5. Permit or transfer holder of record (this may, or may not, be the current property owner)

PERMIT OR TRANSFER HOLDER OF RECORD		
City of Portland, a Municipal Corporation of the State of Oregon		
ADDRESS		
1120 SW 5 th Avenue Room 500		
CITY	STATE	ZIP
Portland	OREGON	97204-1926

ADDITIONAL PERMIT OR TRANSFER HOLDER OF RECORD		
ADDRESS		
CITY	STATE	ZIP

4. Date of Site Inspection: **January, February 2012**

5. Person(s) interviewed and description of their association with the project:

NAME	DATE	ASSOCIATION WITH THE PROJECT
Thom Warren	Same	CWRE for Portland Water Bureau (PWB)
Pat Easley	Same	GW Program Manager for PWB
Randy Albright	Same	PWB Hydrogeologist
Rod Allen	Same	GW System Maintenance
Jim Garner	same	GW System Operations
Kirk Nibler	Same	Instrument technician

6. County: **Multnomah**

7. If any property described in the place of use of the permit or transfer final order is excluded from this report, identify the owner of record for that property (ORS 537.230(4)):

****Mark "NA" if there are no owners of property not included in this claim**

OWNER OF RECORD		
ADDRESS		
CITY	STATE	ZIP

SECTION 2

SYSTEM DESCRIPTION

A. Points of Diversion/Appropriation

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1. Point of diversion/appropriation name or number:

POINT OF DIVERSION/APPROPRIATION (POD/POA) NAME OR NUMBER (CORRESPOND TO MAP)	WELL LOG ID # FOR ALL WORK PERFORMED ON THE WELL (IF APPLICABLE)	WELL TAG # (IF APPLICABLE)
Production Well 17 (PW17)	MULT 001283	
Production Well 18 (PW18)	MULT 001284	
Production Well 19 (PW19)	MULT 001288	

Attach each well log available for the well (include the log for the original well and any subsequent alterations, reconstructions, or deepenings)

2. Point of diversion/appropriation source and, if from surface water, the tributary:

POD/POA NAME OR NUMBER	SOURCE	TRIBUTARY
PW17	Ground Water	Columbia River
PW18	Ground Water	Columbia River
PW19	Ground Water	Columbia River

3. Developed use(s), period of use, and rate for each use:

POD/POA NAME OR NUMBER	USES	IF IRRIGATION, LIST CROP TYPE	SEASON OR MONTHS WHEN WATER WAS USED	RATE OR VOLUME FOR USE (CFS, GPM, OR AF)
PW17	Municipal		Varies	CFS
PW18	Municipal		Varies	CFS
PW19	Municipal		Varies	CFS
Total Quantity of Water Used				

4. Provide a general narrative description of the distribution works. This description must trace the water system from each point of diversion or appropriation to the place of use:

The three wells on this Permit are connected together by a series of collector mains ranging in size from 24" diameter up to 42" diameter, displayed on the COBU well location map. All pipelines and wellsite locations are within easements granted by METRO. The collector main network (CMN) includes 94,000 lineal feet of piping varying from 6" up to 90" diameter and includes all connections to Powell Butte. The CMN accepts water from other wells on different permits as it proceeds to the Ground Water Pump Station (GWPS) where all Ground Water (GW) is pumped via the CMN to Powell Butte 50 Million Gallon underground Storage where it enters distribution networks for dispersal to customers. A breakdown of footage per pipe diameter is an included attachment. CMN pipe alignments are in the noted easement boundaries on the COBU POA map.

SECTION 2

SYSTEM DESCRIPTION (B through H)

Are there multiple PODs or POAs?

YES

If "YES" you will need to copy and complete Sections 2B through 2H for each POD/POA.

POD/POA Name or Number this section describes (only needed if there is more than one):

PW 17 PW 18 PW 19

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B. Place of Use

1. Is the right for municipal use?

YES

If "YES" the table below may be deleted.

C. Diversion and Delivery System Information

Provide the following information concerning the diversion and delivery system. Information provided must describe the equipment used to transport and apply the water from the point of diversion/appropriation to the place of use.

1. Is a pump used?

YES

If "NO" items 2 through item 6 may be deleted.

2. GWPS Pump Information

MANUFACTURER	MODEL	SERIAL NUMBER	TYPE (CENTRIFUGAL, TURBINE OR SUBMERSIBLE)	INTAKE SIZE	DISCHARGE SIZE
Bingham-Willamette		1B730	Centrifugal	16"	14"
Bingham-Willamette		1B731	Centrifugal	16"	14"
Bingham-Willamette		1B732	Centrifugal	16"	14"
Bingham-Willamette		1B733	Centrifugal	16"	14"
Bingham-Willamette		1B734	Centrifugal	16"	14"
Bingham-Willamette		1B735	Centrifugal	16"	14"

2. Production Well Pump Information

WELL ID	MANUFACTURER	MODEL	SERIAL NUMBER	TYPE (CENTRIFUGAL, TURBINE OR SUBMERSIBLE)	INTAKE SIZE	DISCHARGE SIZE
PW17	Flowserve	15MQH2		Submersible	20"	14"
PW18	Byron-Jackson	20HQ02		Submersible	20"	14"
PW19	Byron-Jackson	20HQ02		Submersible	20"	14"

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3. GWPS Motor Information

MANUFACTURER	HORSEPOWER
Westinghouse	2350
Westinghouse	2350
Westinghouse	2350
Westinghouse	2350
Westinghouse	2350
Westinghouse	2350

3. PW Motor Information

WELL ID	MANUFACTURER	HORSEPOWER
PW17	Flowserve Submersible	200
PW18	Byron-Jackson Submersible	600
PW19	Byron-Jackson Submersible	400

4. Theoretical Pump Capacity

HORSEPOWER	OPERATING PSI	LIFT FROM SOURCE TO PUMP *If A WELL, THE WATER LEVEL DURING PUMPING	LIFT FROM PUMP TO PLACE OF USE	TOTAL PUMP OUTPUT (IN CFS)
2350 (GWPS)	N/A	N/A	500'	186 cfs
200 (PW17)	60	25'	5'	7.5 cfs
600 (PW18)	60	72'	5'	18.1 cfs
400 (PW19)	55	22'	5'	16.4 cfs

5. Provide pump calculations:

GWPS	$\frac{(2350)^{HP} (6.61)^{EFF}}{500' TDH} = 31 \text{ cfs} \times 6 \text{ pumps} = 186 \text{ cfs}$
PW17	$\frac{(200)^{HP} (7.04)^{EFF}}{152 + 25 + 1' \text{ LIFT}} = \frac{1408}{187} = 7.5 \text{ cfs}$
PW18	$\frac{(600)^{HP} (7.04)^{EFF}}{151 + 72 + 1' \text{ LIFT}} = \frac{4224}{233} = 18.1 \text{ cfs}$
PW19	$\frac{(400)^{HP} (7.04)^{EFF}}{140 + 22 + 1' \text{ LIFT}} = \frac{2816}{172} = 16.4 \text{ cfs}$

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6. Measured Pump Capacity (using meter if meter was present and system was operating)

Please see attachment of SCADA output for time window output of wells and GWPS

INITIAL METER READING	ENDING METER READING	DURATION OF TIME OBSERVED	TOTAL PUMP OUTPUT (IN CFS)
GWPS		11/15/2006; 4AM-8AM	136.8
PW17		11/15/2006; 4AM-8AM	5.7
PW18		11/15/2006; 4AM-8AM	14.8
PW19		11/15/2006; 4AM-8AM	13.9

Reminder: For pump calculations use the reference information at the end of this document.

7. Is the distribution system piped?

YES

If "NO" items 8 through item 11 may be deleted.

8. Mainline Information

MAINLINE SIZE	LENGTH	TYPE OF PIPE	BURIED OR ABOVE GROUND
See attachment			

9. Lateral or Handline Information

LATERAL OR HANDLINE SIZE	LENGTH	TYPE OF PIPE	BURIED OR ABOVE GROUND
N/A			

10. Sprinkler Information

SIZE	OPERATING PSI	SPRINKLER OUTPUT (GPM)	TOTAL NUMBER OF SPRINKLERS	MAXIMUM NUMBER USED	TOTAL SPRINKLER OUTPUT (CFS)
N/A					

Reminder: For sprinkler output determination use the reference information at the end of this document.

11. Pivot Information

MANUFACTURER	MAXIMUM WETTED RADIUS	OPERATING PSI	TOTAL PIVOT OUTPUT (GPM)	TOTAL PIVOT OUTPUT (CFS)
N/A				

12. Additional notes or comments related to the system:

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D. Groundwater Source Information (Well and Sump)

1. Is the appropriation from ground water (well or sump)?

YES

If "NO", items 2 through 8 relating to this section may be deleted.

2. Describe the access port (type and location) or other means to measure the water level in the well:

Dedicated in well pressure transducers that report to a SCADA system.
Also 1" diameter access port on seal for electrotape

3. If well logs are not available, provide as much of the following information as possible:
Well logs for all 3 wells are part of the submittals of this COBU.

CASING DIAMETER	CASING DEPTH	TOTAL DEPTH	COMPLETION DATE OF ORIGINAL WELL	COMPLETION DATES OF ALTERATIONS	WHO THE WELL WAS DRILLED FOR	WELL DRILLED BY
Well logs	Attached	For all	3 wells			

4. In addition to the information requested in item "3" above, provide any other information which may help the Department locate any well logs associated with this appropriation.

5. Is the appropriation from a dug well (sump)?

NO

If "NO", items 6 through 8 relating to this section may be deleted.

E. Storage

Granted a variance for this section. See attachment # 6

1. Does the distribution system include in-system storage (i.e. storage tank, bulge in system / reservoir)

YES

If "NO", item 2 and 3 relating to this section may be deleted.

If "YES" is it a: Storage Tank

YES

Bulge in System / Reservoir

YES

Complete appropriate table(s), unused table may be deleted.

2. Storage Tank:

MATERIAL (CONCRETE, FIBERGLASS, METAL, ETC.)	CAPACITY (IN GALLONS)	ABOVE GROUND OR BURIED

3. Bulge in System / Reservoir:

RESERVOIR NAME OR NUMBER (CORRESPOND TO MAP)	APPROXIMATE DAM HEIGHT	APPROXIMATE CAPACITY (IN ACRE FEET)

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F. Gravity Flow Pipe

(THE DEPARTMENT TYPICALLY USES THE HAZEN-WILLIAM'S FORMULA FOR A GRAVITY FLOW PIPE SYSTEM)

1. Does the system involve a gravity flow pipe?

NO

If "NO", items 2 through 4 relating to this section may be deleted.

G. Gravity Flow Canal or Ditch

(THE DEPARTMENT TYPICALLY USES MANNING'S FORMULA FOR CANALS AND DITCHES)

1. Is a gravity flow canal or ditch used to convey the water as part of the distribution system?

NO

If "NO", items 2 through 4 relating to this section may be deleted.

H. Reservoir

1. Does the claim involve a reservoir modified through a transfer?

NO

Reminder: Complete this section if the reservoir right has been modified through the transfer process. If the claim is for a permitted reservoir use the Claim of Beneficial Use form for reservoirs.

If "NO", items 2 through 9 relating to this section may be deleted.

SECTION 3 CONDITIONS

All conditions contained in the permit, permit amendment, transfer final order, or any extension final order shall be addressed. Reports that do not address all performance related conditions will be returned.

1. Time Limits:

Permits, transfer final orders, and any extension final orders contain any or all of the following dates: the date when the actual construction work was to begin, the date when the construction was to be completed, and the date when the complete application of water to the proposed use was to be completed. These dates may be referred to as ABC dates. Describe how the water user has complied with each of the development timelines established in the permit, extension or transfer final order:

	DATE FROM PERMIT OR TRANSFER	DATE ACCOMPLISHED*	DESCRIPTION OF ACTIONS TAKEN BY WATER USER TO COMPLY WITH THE TIME LIMITS
ISSUANCE DATE	10/28/1983		
BEGIN CONSTRUCTION (A)	October 28, 1984	July 20, 1983	Began drilling of all 3 wells
COMPLETE CONSTRUCTION (B)	October 1, 1984	May 10, 1984	Completed drilling PW 19. PW17 & PW18 were drilled prior to that date (see attached Well Logs)
COMPLETE APPLICATION OF WATER (C)	October 1, 1985	Not finished. This a partial perfection COBU	Have perfected a portion of Permit Q and wish to Certify that under this COBU

* MUST BE WITHIN PERIOD BETWEEN PERMIT, TRANSFER FINAL ORDER, OR ANY EXTENSION FINAL ORDER ISSUANCE AND THE DATE TO COMPLETELY APPLY WATER

2. Is there an extension final order(s)?

YES

If "NO", you may delete item 3 in this section.

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WATER RESOURCES DEPT
SALEM, OREGON

3. If for a transfer extension order, provide the following information:

VOLUME	PAGE	DATE EXTENDED TO
Extensions of time for Permits do not receive FO Numbers	Approved 10/06/2009	10/01/2085
FO's are attachments to COBU See attachment # 8		

4. Initial Water Level Measurements:

a. Was the water user required to submit an initial static water level measurement? **NO**

If "NO", items 4b through 4d relating to this section may be deleted.

5. Annual Static Water Level Measurements:

a. Was the water user required to submit annual static water level measurements? **NO**

6. Pump Test (Required for most ground water permits prior to issuance of a certificate)

a. Did the permit require the submittal of a pump test? **YES**

If "NO", items 6b through 6e relating to this section may be deleted.

b. Has the pump test been previously submitted to the Department? **YES**

c. Is the pump test attached to this claim? **YES**

d. Has the pump test been approved by the Department? **YES**

e. Has a pump test exemption been approved by the Department? **YES**

10 year anniversary pump test was exempted with approval of initial test.

7. Measurement Conditions:

a. Does the permit, permit amendment, transfer final order, or any extension final order require the installation of a meter or approved measuring device? **YES**

If "NO", items 7b through 7f relating to this section may be deleted.

Reminder: If a meter or approved measuring device was required, the COBU map must indicate the location of the device in relation to the point of diversion or appropriation.

b. Has a meter been installed? **YES**

c. Meter Information

POD/POA NAME OR #	MANUFACTURER	SERIAL #	CONDITION (WORKING OR NOT)	CURRENT METER READING	DATE INSTALLED
PW 17	Data Industrial	None	Working	N/A	1984
PW 18	Data Industrial	None	Working	N/A	1984
PW 19	Data Industrial	None	Working	N/A	1984

Meter readings are often reset when repairs are made to the meter. Total well output is calculated by rate of flow measurements over time and reported and archived in a SCADA system which monitors the entire well field output.

If a meter has been installed, items 7d through 7f relating to this section may be deleted.

8. Recording and reporting conditions

a. Is the water user required to report the water use to the Department?

YES

Only by the annual Municipal reporting requirement

If "NO", item 8b relating to this section may be deleted.

b. Have the reports been submitted?

YES

METHOD OF SUBMITTING REPORT (PAPER OR ELECTRONIC)	WATER USER REPORTING ID
Electronic	1205

If the reports have not been submitted, attach a copy of the reports if available.

9. Fish Screening

a. Are any points of diversion required to be screened to prevent fish from entering the point of diversion?

NO

10. By-pass Devices

a. Are any points of diversion required to have a by-pass device to prevent fish from entering the point of diversion?

NO

If "NO", items 10b and 10c relating to this section may be deleted.

11. Other conditions required by permit, permit amendment final order, extension final order, or transfer final order:

a. Were there special well construction standards?

NO

b. Was submittal of a ground water monitoring plan required?

NO

c. Was the water user required to restore the riparian area if it was disturbed?

NO

d. Was a fishway required?

NO

e. Was submittal of a letter from an engineer required prior to storage of water?

NO

f. Was submittal of a water management and conservation plan required?

YES

g. Other conditions?

YES

If "YES" to any of the above, identify the condition and describe the water user's actions to comply with the condition(s):

Division 86 WMCP was approved May 25, 2010.

Development limitations on any Diversion larger than 62.04 cfs but is not applicable to this COBU as perfection claim is significantly less than 62.04 cfs

See attachment # 10

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WATER RESOURCES DEPT
SALEM, OREGON

G-10906
G-11354

Gerry Clark

From: Gerry Clark
Sent: Wednesday, March 28, 2012 1:40 PM
To: Warren, Thom (Thom.Warren@portlandoregon.gov)
Subject: Waiver Request Approval - Section "E" of Claim form (Reservoirs)

Thom,

I received your request for a waiver from completing Section "E" of the Claim for Permits G-10124 and G-10479. Your request indicated that rather than complete the referenced section of the form, that you supply a list and description of the City's reservoirs/tanks along with an overall schematic drawing of the reservoirs/tanks.

Your request for a waiver concerning the completion of Section "E" of the Claim form and supplying the list and schematic is approved as requested.

Please let me know if you have any additional quesitons.

Gerry

Gerry Clark
Water Right Services Division
Water Resources Department
725 Summer Street NE, Suite A
Salem, Oregon 97301

Phone: 503-986-0811
Fax: 503-986-0901

WRD Home Page: www.wrd.state.or.us



Randy Leonard, Commissioner
David G. Shaff, Administrator

1120 SW 5th Avenue, Room 600
Portland, Oregon 97204-1926
Information: 503-823-7404
www.portlandonline.com/water



An Equal Opportunity Employer

March 22, 2012

Oregon Water Resources Department
725 Summer Street NE, Suite "A"
Salem, Oregon 97301-1266

RE: Requesting Variance of requirement to fill in Section "E" "Storage" of COBU
Reports for Permits G-10124 and G-10479.

To whom it may concern:

Portland Water Bureau is submitting partial COBU's under the 25% municipal use rule allowing municipalities to file for a Certificate of Water Right providing a minimum of 25% of total permitted Q can be beneficially proved up upon. Because of the huge number of tanks, reservoirs, and pumping stations involved in the system, I hereby respectfully request that in lieu of the entirety of Section "E" of the COBU form being filled out, the supplied schematics and information on the storage capacities and facilities be accepted instead of Section "E" being filled out. The included documents are attached with this letter and will be part of the COBU attachments as well.

Please contact me if you have further questions or need more explanation.

Sincerely,

Thompson M. Warren PLS CWRE
(503)823-7524
thom.warren@portlandoregon.gov

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PWB Storage System Tank Information

From PublicOpsInfrastructure.mdb

3/5/2012

Name	Facility Type:	Site	Capacity(mg)	Tank Material:
101ST AVENUE TANK	TANK	101st & Powell	0.5	Concrete
104TH & KLINKITAT TANK	TANK	104th & Klickitat	4	Concrete
105TH & FREMONT TANK	TANK	105th & Fremont	0.5	Steel
109TH AVENUE TANK 1	TANK	109th Avenue	3	Steel
109TH AVENUE TANK 2	TANK	109th Avenue	0.675	Steel
127TH & BURNSIDE TANK	TANK	127th & Burnside	0.2	Elevated Steel
138TH/CENTER TANK	TANK	138th/Center Street	0.031	Steel
140TH & HALSEY TANK	TANK	140th & Halsey	0.01	Steel
144TH/CENTER TANK	TANK	144th/Center (Vivian)	0.16	Steel
148TH & HALSEY TANK	TANK	148th & Halsey	2	Concrete
160TH AVENUE TANK 1	TANK	160th Avenue	7	Concrete
160TH AVENUE TANK 2	TANK	160th Avenue	3	Concrete
160TH AVENUE TANK 3	TANK	160th Avenue	0.2	Concrete
ALFRED TANK	TANK	Alfred	0.5	Steel
ALMA TANK	TANK	Alma	1	Elevated Steel
ALTO PARK TANK	TANK	Alto Park	0.2	Concrete
ARLINGTON HEIGHTS TANK 1	TANK	Arlington Heights	0.5	Concrete
ARLINGTON HEIGHTS TANK 2	TANK	Arlington Heights	1	Concrete
ARLINGTON HEIGHTS TANK 3	TANK	Arlington Heights	3	Concrete
ARNOLD TANK 1	TANK	Arnold	0.5	Concrete
ARNOLD TANK 2	TANK	Arnold	0.5	Concrete
ARNOLD TANK 3	TANK	Arnold	0.5	Concrete
ARROWOOD TANK	TANK	Arrowood		
BERTHA TANK 1	TANK	Bertha	0.2	Concrete
BERTHA TANK 2	TANK	Bertha	0.85	Concrete
BROADWAY DR TANK	TANK	Broadway Drive	0.38	Steel
BRUGGER TANK	TANK	Brugger	0.2	Concrete
BUDDINGTON TANK	TANK	Buddington	0.25	Concrete
BURLINGAME TANK 2	TANK	Burlingame	0.38	Steel
BURLINGAME TANK 3	TANK	Burlingame	0.38	Steel
BURLINGAME TANK 4	TANK	Burlingame	0.86	Steel
CALVARY STANDPIPE (SYLVAN) TANK	TANK	Calvary		Steel
CALVARY TANK	TANK	Calvary	1	Steel
CANBY HIGH TANK	TANK	Canby	0.1	Elevated Steel
CANBY LOW TANK	TANK	Canby	0.35	Concrete
CLATSOP TANK	TANK	Clatsop	3	Steel
COLLINS VIEW TANK	TANK	Collins View	0.38	Steel
CONDUIT 2 SURGE TANK (LUSTED)	TANK	Lusted		Steel
CONDUIT 3 SURGE TANK (LUSTED)	TANK	Lusted		Steel
CONDUIT 4 SURGE TANK (LUSTED)	TANK	Lusted		Steel
COUNCIL CREST TANK	TANK	Council Crest	0.5	Steel
DENVER TANK	TANK	Denver	3	Elevated Steel
FOREST PARK HIGH TANK	TANK	Forest Park High	0.5	Elevated Steel
FREEMAN TANK	TANK	Freeman	0.335	Concrete
GREENLEAF TANK 1	TANK	Greenleaf	0.03	Steel
GREENLEAF TANK 2	TANK	Greenleaf	0.3	Steel
GROUNDWATER TANK	TANK	Groundwater	2	Steel

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HAYDEN ISLAND TANK 1	TANK	Hayden Island 1	0.5 Steel
HAYDEN ISLAND TANK 4	TANK	Hayden Island 4	
HAYDEN ISLAND TENNIS COURT TANK	TANK	Hayden Island 3	0.55 Concrete
HAZELWOOD TANK	TANK	Hazelwood Office	0.5 Elevated Steel
HEADWORKS BEAR CREEK REDWOOD T.	TANK	Headworks Bear Creek	Wood
HEADWORKS DAM 1 RESERVOIR	RESERVOIR	Headworks Dam 1	10,000 Concrete Dam
HEADWORKS DAM 2 RESERVOIR	RESERVOIR	Headworks Comple;	6,500 Earthfill/Rock Dam
KELLY BUTTE TANK	TANK	Kelly Butte	10 Steel
KINGS HEIGHTS TANK	TANK	Kings Heights	0.2 Concrete
LEXINGTON TANK	TANK	Lexington	1 Steel
LOWER WILLBRIDGE TANK	TANK	Lower Willbridge	0.13 Concrete
MARIGOLD TANK	TANK	Marigold	1 Elevated Steel
MARQUAM HILL TANK 1	TANK	Marquam Hill	0.287 Steel
MARQUAM HILL TANK 2	TANK	Marquam Hill	2.2 Prestressed Concrete
MAYFAIR TANK	TANK	Mayfair	5.6 Steel
MT SCOTT TANK	TANK	Mt Scott	0.4 Steel
NEVADA COURT TANK	TANK	Nevada Court	0.617 Concrete
NORTH LINNTON TANK	TANK	North Linnton	1 Steel
PARKROSE WELLS TANK	TANK	Well 38	
PATTON TANK	TANK	Patton	0.4 Elevated Steel
PENRIDGE TANK	TANK	Penridge	0.045 Steel
PITTOCK TANK	TANK	Pittock	1 Concrete
PORTLAND HEIGHTS TANK 1	TANK	Portland Heights	0.6 Concrete
PORTLAND HEIGHTS TANK 2	TANK	Portland Heights	0.5 Concrete
PORTLAND HEIGHTS TANK 3	TANK	Portland Heights	1.8 Prestressed Concrete
POWELL BUTTE RESERVOIR NORTH	RESERVOIR	Powell Butte	24.841 Concrete
POWELL BUTTE RESERVOIR SOUTH	RESERVOIR	Powell Butte	24.91 Concrete
RAYMOND STREET TANK	TANK	Raymond Street	2
RICHLAND TANK	TANK	Richland Tank	0.2 Elevated Steel
RIVERGATE TANK	TANK	Rivergate	1.5 Steel
ROCKY BUTTE TANK	TANK	Rocky Butte Tank	0.5 Steel
ROSE PARKWAY TANK	TANK	Rose Parkway	0.5 Elevated Steel
SALMON STREET TANK	TANK	Salmon Street	Elevated Steel
SALTZMAN HYDRO TANK	TANK	Saltzman	Steel
SALTZMAN TANK	TANK	Saltzman	0.001 Steel
SAM JACKSON TANK 1	TANK	Sam Jackson	Prestressed Concrete
SAM JACKSON TANK 2	TANK	Sam Jackson	2.75 Prestressed Concrete
SELLWOOD TANK	TANK	Sellwood Tank	Elevated Steel
SHERWOOD FIELD TANK	TANK	Sherwood Field	0.38 Steel
ST JOHNS TANK 1	TANK	St Johns	0.36 Steel
ST JOHNS TANK 2	TANK	St Johns	1.5 Elevated Steel
STEPHENSON TANK 1	TANK	Stephenson	1 Concrete
STEPHENSON TANK 2	TANK	Stephenson	0.09 Concrete
STEPHENSON TANK 3	TANK	Stephenson	0.25 Concrete
TABOR RESERVOIR 1	RESERVOIR	Tabor Complex	12 Concrete
TABOR RESERVOIR 5	RESERVOIR	Tabor Complex	49 Concrete
TABOR RESERVOIR 6 NORTH	RESERVOIR	Tabor Complex	31.9 Concrete
TABOR RESERVOIR 6 SOUTH	RESERVOIR	Tabor Complex	31.9 Concrete
TABOR RESERVOIR 7	RESERVOIR	Tabor Reservoir 7	0.2 Concrete
TEXAS TANK	TANK	Texas	0.615 Concrete
UPPER LINNTON TANK	TANK	Upper Linnton	0.13 Concrete
UPPER WHITWOOD TANK	TANK	Upper Whitwood	0.13 Concrete

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UPPER WILLBRIDGE TANK	TANK	Upper Willbridge	0.065 Concrete
VERMONT HILLS TANK 2	TANK	Vermont Hills	0.577 Concrete
VERMONT HILLS TANK 3	TANK	Vermont Hills	0.867 Steel
VERMONT HILLS TANK 4	TANK	Vermont Hills	0.527 Concrete
VERMONT HILLS TANK 5	TANK	Vermont Hills	2.798 Prestressed Concrete
VERNON ELEVATED TANK	TANK	Vernon	1 Elevated Steel
VERNON INTERMEDIATE (LOW COMBO) TANK	TANK	Vernon	3.2 Steel
VERNON STANDPIPE (HIGH COMBO) TANK	TANK	Vernon	2.5 Elevated Steel
WASHINGTON PARK RESERVOIR 3	RESERVOIR	Washington Park Co	16.4 Concrete
WASHINGTON PARK RESERVOIR 4	RESERVOIR	Washington Park Co	17.6 Concrete
WESTWOOD TANK	TANK	Westwood	1 Prestressed Concrete
WHITWOOD TANK	TANK	Whitwood Tank	0.13 Concrete
WILLALATIN TANK	TANK	Willalatin	0.2 Elevated Steel
WILLAMETTE HEIGHTS TANK	TANK	Willamette Heights	0.06 Concrete

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PORTLAND WATER BUREAU SUPPLY SYSTEM SCHEMATIC

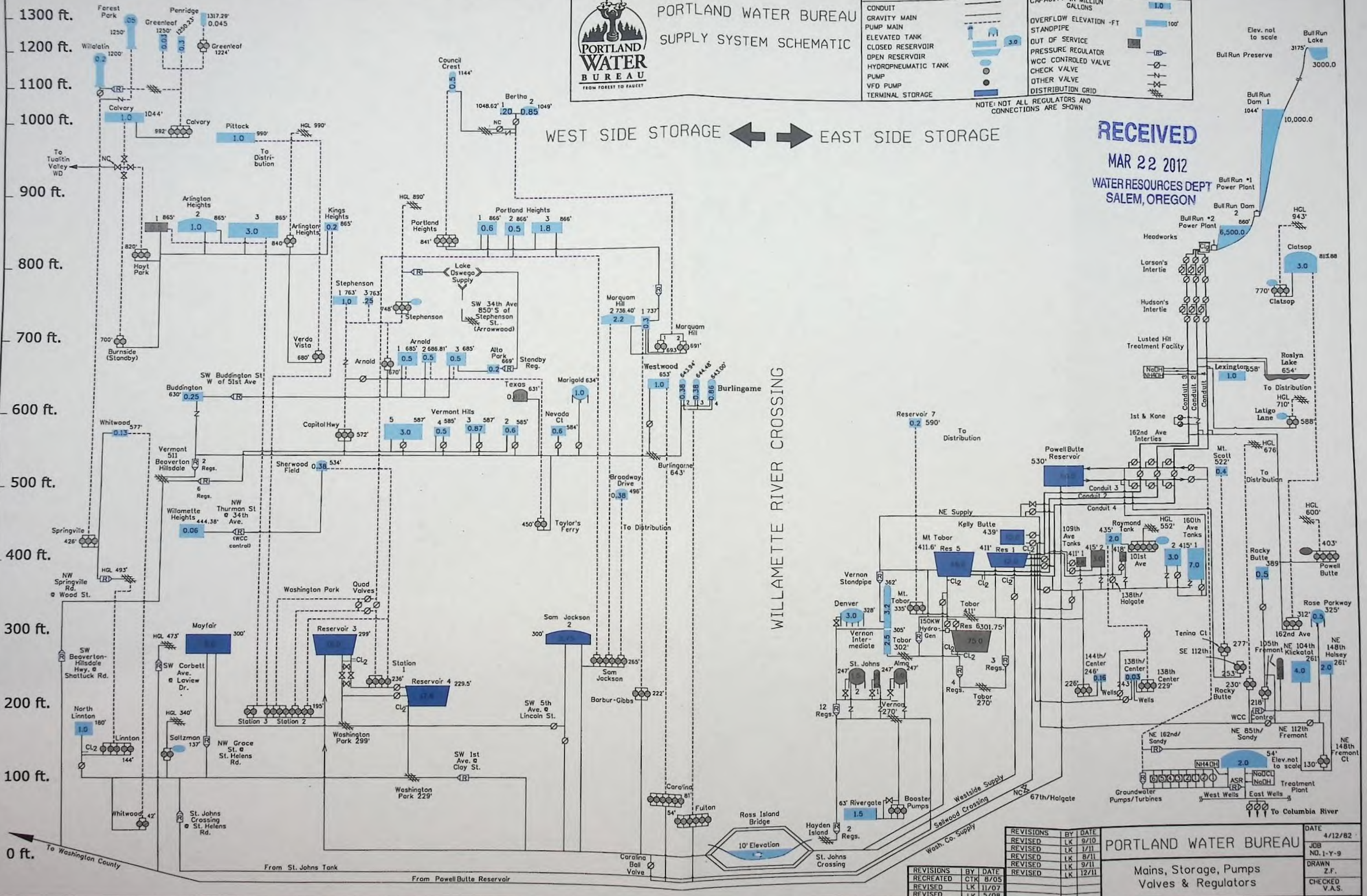
MAP SYMBOLS

CONDUIT	OVERFLOW ELEVATION - FT
GRAVITY MAIN	STANDPIPE
PUMP MAIN	OUT OF SERVICE
ELEVATED TANK	PRESSURE REGULATOR
CLOSED RESERVOIR	WCC CONTROLLED VALVE
OPEN RESERVOIR	CHECK VALVE
HYDRO-PNEUMATIC TANK	OTHER VALVE
PUMP	DISTRIBUTION GRID
VFD PUMP	
TERMINAL STORAGE	

NOTE: NOT ALL REGULATORS AND CONNECTIONS ARE SHOWN

WEST SIDE STORAGE ← → EAST SIDE STORAGE

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WILLAMETTE RIVER CROSSING

REVISIONS			BY	DATE
REVIS	REVIS	REVIS	LK	9/10
REVIS	REVIS	REVIS	LK	1/11
REVIS	REVIS	REVIS	LK	8/11
REVIS	REVIS	REVIS	LK	9/11
REVIS	REVIS	REVIS	LK	12/11

REVISIONS			BY	DATE
RECREATED	CTK	8/05		
REVIS	LK	11/07		
REVIS	LK	5/08		

DATE		4/12/82
JOB NO.		1-Y-9
DRAWN		Z.F.
CHECKED		V.A.S.

PORTLAND WATER BUREAU	
Mains, Storage, Pumps Valves & Regulators	

SECTION 4 VARIATIONS

Include a description of variations from the permit, permit amendment final order, extension final order, or transfer final order. (i.e. *"The permit allowed three points of diversion. The water user only developed one of the points."* or *"The permit allowed 40.0 acres of irrigation. The water user only developed 10.0 acres."*)

The permit allows perfection of 100 cfs of Ground Water. So far, only 34.4 cfs has been beneficially used. Wells are used annually on varying dates depending on exercising regimen and turbidity events in Bull Run Watershed.

This is a partial perfection of the right under the minimum municipal 25% perfection Statute.

SECTION 5 ATTACHMENTS

Provide a list of any additional documents you are attaching to this report:

ATTACHMENT NAME	DESCRIPTION
#1	Well Logs, PW 17, 18 & 19
#2	COBU POA Map
#3	COBU POU Map
#4	GW Collector Main Network (CMN) Pipeline Summary
#5	GW CMN Location Map
#6	Variance Letter w/attachments
#7	Easement Documents
#8	Extension of Time Final Order
#9	Pump Test Result Letter
#10	WMCP FinalOrder
#11	SCADA Pumping output record snapshot for 4 hour window(wells)
#12	SCADA Pumping output record snapshot for 4 hour window(GWPS)
#13	10 year SWL measurement

SECTION 6 CLAIM SUMMARY

POD / POA NAME OR #	MAXIMUM RATE AUTHORIZED	CALCULATED THEORETICAL RATE BASED ON SYSTEM	AMOUNT OF WATER MEASURED	USE	# OF ACRES ALLOWED	# OF ACRES DEVELOPED
PW17	33.3cfs	7.5 cfs	5.7 cfs <small>ALLOW</small>	Municipal	N/A	N/A
PW18	33.3cfs	18.1 cfs	14.8 cfs <small>ALLOW</small>	Municipal	N/A	N/A
PW19	33.3cfs	16.4 cfs	13.9 cfs <small>ALLOW</small>	Municipal	N/A	N/A

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SECTION 7

CLAIM OF BENEFICIAL USE MAP

The Claim of Beneficial Use Map must be submitted with this claim. Claims submitted without the Claim of Beneficial Use map will be returned. The map shall be submitted on poly film at a scale of 1" = 1320 feet, 1" = 400 feet, or the original full-size scale of the county assessor map for the location.

Provide a general description of the survey method used to prepare the map. Examples of possible methods include, but are not limited to, a traverse survey, GPS, or the use of aerial photos. If the basis of the survey is an aerial photo, provide the source, date, series and the aerial photo identification number.



The POA map was surveyed by using GPS receivers collecting real time location positions on Production Wells # 17, #18, and # 19 in local coordinates, tied to Government Land Corners as stated on the COBU POA map.

The POU map was generated from GIS system wide service limits from a base map created from Government and Local Survey monuments of record.

Map Checklist

Please be sure that the map you submit includes ALL the items listed below.

(Reminder: Incomplete maps and/or claims may be returned.)

- ☒ Map on polyester film
- ☒ Appropriate scale (1" = 400 feet, 1" = 1320 feet, or the original full-size scale of the county assessor map)
- ☒ Township, Range, Section, Donation Land Claims, and Government Lots
- ☐ If irrigation, number of acres irrigated within each projected Donation Land Claims, Government Lots, Quarter-Quarters
- ☐ Locations of fish screens and/or fish by-pass devices in relationship to point of diversion
- ☐ Locations of meters and/or measuring devices in relationship to point of diversion or appropriation
- ☐ Conveyance structures illustrated (pumps, reservoirs, pipelines, ditches, etc.)
- ☐ Point(s) of diversion or appropriation (illustrated and coordinates)
- ☐ Tax lot boundaries and numbers
- ☐ Source illustrated if surface water
- ☐ Disclaimer ("This map is not intended to provide legal dimensions or locations of property ownership lines")
- ☐ Application and permit number or transfer number
- ☐ North arrow
- ☐ Legend

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☐ CWRE stamp and signature

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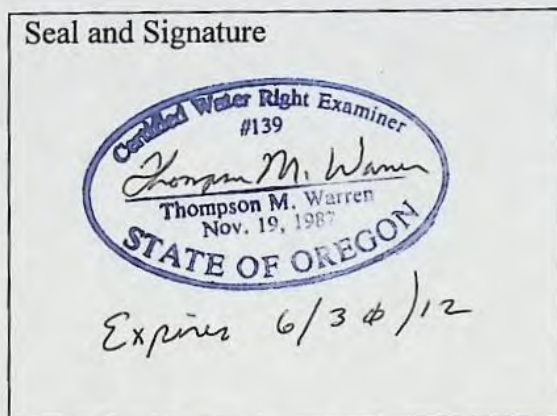
MAY 02 2012

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SALEM, OREGON**

SECTION 8 SIGNATURES

CWRE Statement, Seal and Signature

The facts contained in this Claim of Beneficial Use are true and correct to the best of my knowledge.

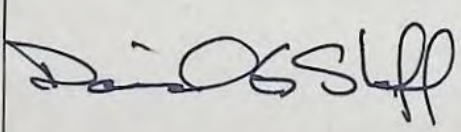
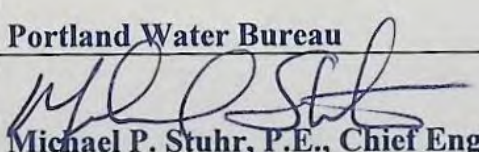


CWRE NAME Thompson M. Warren	PHONE NO. (503)823-7524	ADDITIONAL CONTACT NO. (503)314-0699
ADDRESS 596 Idylwood Dr SE		
CITY Salem	STATE OR	ZIP 97302
E-MAIL thethom@comcast.net		

Permit or Transfer Holder's of Record Signature or Acknowledgement

This Claim of Beneficial Use must be signed by each permit or transfer holder of record.

The facts contained in this Claim of Beneficial Use are true and correct to the best of my knowledge. I request that the Department issue a water right certificate.

SIGNATURE	PRINT OR TYPE NAME	DATE
	David G. Shaff, Administrator Portland Water Bureau	04. 19. 2012
	Michael P. Stuhr, P.E., Chief Engineer Portland Water Bureau	4/19/20

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WATER WELL REPORT
STATE OF OREGON

Per WWC:
#5-36" dia. from
+1 ft to 5 ft. can
6/12/84

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MAY 18 1984

WATER RESOURCES DEPT
SALEM, OREGON

State Well No.

State Permit No.

1N/3E-21br
MULT
001288

(1) OWNER:

Name CITY OF PORTLAND
Address 1220 S.W. 5TH AVE
City PORTLAND State ORE. 97204

(2) TYPE OF WORK (check): WELL NO. 19

New Well ☒ Deepening ☐ Reconditioning ☐ Abandon ☐

If abandonment, describe material and procedure in Item 12.

(3) TYPE OF WELL: (4) PROPOSED USE (check):

Rotary Air ☐ Driven ☐ Domestic ☐ Industrial ☐ Municipal ☒
Rotary Mud ☐ Dug ☐ Irrigation ☐ Test Well ☐ Other ☐
Cased ☒ Bored ☐ Thermal: Withdrawal ☐ ReInjection ☐

(5) CASING INSTALLED: Steel ☒ Plastic ☐

Threaded ☐ Welded ☒

36" Diam. from +1 ft. to 500 ft. Gauge 500

31.5" Diam. from 50 ft. to 55 ft. Gauge 375

31.5" Diam. from 113 ft. to 118 ft. Gauge 375

31.5" Diam. from 113 ft. to 118 ft. Gauge 375

(6) PERFORATIONS: Perforated? ☐ Yes ☒ No

Type of perforator used

Size of perforations in. by in.

perforations from ft. to ft.

perforations from ft. to ft.

perforations from ft. to ft.

(7) SCREENS: Well screen installed? ☒ Yes ☐ No

Manufacturer's Name UOP JOHNSON

Type STAINLESS STEEL Model No.

Diam. SEE ATTACHED SHEET ft. to ft.

Diam. Slot Size Set from ft. to ft.

(8) WELL TESTS: Drawdown is amount water level is lowered below static level

Was a pump test made? ☒ Yes ☐ No If yes, by whom? STRASSER

8000 gal/min. with 22 ft. drawdown after 14 hrs.

10000 " 30 " 2 "

Air test gal/min. with drill stem at ft. hrs.

Ballor test gal/min. with ft. drawdown after hrs.

Artesian flow g.p.m.

Temperature of water Depth artesian flow encountered ft.

(9) CONSTRUCTION: Special standards: Yes ☐ No ☒

Well seal—Material used CEMENT GROUT

Well sealed from land surface to 25 ft.

Diameter of well bore to bottom of seal 42 in.

Diameter of well bore below seal 36 in.

Number of sacks of cement used in well seal 90

How was cement grout placed? PUMPED THROUGH 1 1/4

PIPE FROM BOTTOM UP AS THE

TEMP. CASING WAS PULLED

Was pump installed? NO Type HP Depth ft.

Was a drive shoe used? ☒ Yes ☐ No Plugs Size: location ft.

Did any strata contain unusable water? ☐ Yes ☒ No

Type of Water? depth of strata

Method of sealing strata off

Was well gravel packed? ☐ Yes ☒ No Size of gravel: ft.

Gravel placed from ft. to ft.

(10) LOCATION OF WELL:

County MULTNOMAH Driller's well number 5601

SW 1/4 NW 1/4 Section 21 T. 1N R. 3E W.M.

Tax Lot # Lot Blk Subdivision

Address at well location:

(11) WATER LEVEL: Completed well.

Depth at which water was first found 35

Static level 6 ft. below land surface. Date 4/19/84

Artesian pressure lbs. per square inch. Date

(12) WELL LOG: Diameter of well below casing

Depth drilled 123 ft. Depth of completed well 118 ft.

Formation: Describe color, texture, grain size and structure of materials; and show thickness and nature of each stratum and aquifer penetrated, with at least one entry for each change of formation. Report each change in position of Static Water Level and indicate principal water-bearing strata.

MATERIAL	From	To	SWL
SILTY CLAY	0	20	
LARGE CEMENTED GRAVEL	20	35	
GRAVEL AND BOULDERS	35	54	
LOOSE SAND AND GRAVEL	54	69	
CAPBLES SAND AND GRAVEL	69	78	
GRAVEL AND SILT	78	86	
CLAY, SOME GRAVEL	86	90	
SAND, GRAVEL AND CLAY	90	99	
GRAVEL AND SILT	99	113	
BOULDERS	113	118	
CLAY	118	123	

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WATER RESOURCES DEPT
SALEM, OREGON

Work started JAN 16 1984 Completed MAY 9 1984

Date well drilling machine moved off of well MAY 10 1984

Drilling Machine Operator's Certification:

This well was constructed under my direct supervision. Materials used and information reported above are true to my best knowledge and belief.

(Signed) Paul D. Cyman Date 5/14, 1984

(Drilling Machine Operator) WWC 1246

Drilling Machine Operator's License No.

Water Well Contractor's Certification:

This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.

Name R. A. Strasser Drilling Co. (Type or print)

Address 8110 S.E. Sunset Lane, Portland OR. 97206

(Signed) Robert A. Strasser

(Water Well Contractor)

Contractor's License No. 10 Date MAY 14, 1984

NOTICE TO WATER WELL CONTRACTOR

The original and first copy of this report are to be filed with the

WATER RESOURCES DEPARTMENT,

SALEM, OREGON 97310

within 30 days from the date of well completion.

SP-12658-690

WELL NO. 19 SCREEN

DIA.	<u>31.5</u>	SLOT SIZE	<u>125</u>	FROM	<u>55</u>	TO	<u>57</u>
DIA.	<u>31.5</u>	SLOT SIZE	<u>200</u>	FROM	<u>57</u>	TO	<u>64</u>
DIA.	<u>31.5</u>	SLOT SIZE	<u>125</u>	FROM	<u>64</u>	TO	<u>69</u>
DIA.	<u>31.5</u>	SLOT SIZE	<u>200</u>	FROM	<u>69</u>	TO	<u>74</u>
DIA.	<u>31.5</u>	SLOT SIZE	<u>150</u>	FROM	<u>74</u>	TO	<u>83</u>
DIA.	<u>31.5</u>	SLOT SIZE	<u>125</u>	FROM	<u>83</u>	TO	<u>84</u>
DIA.	<u>31.5</u>	SLOT SIZE	<u>30</u>	FROM	<u>103</u>	TO	<u>104</u>
DIA.	<u>31.5</u>	SLOT SIZE	<u>60</u>	FROM	<u>104</u>	TO	<u>113</u>
DIA.	<u>31.5</u>						

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WATER RESOURCES DEPT
SALEM, OREGON

WATER WELL REPORT
STATE OF OREGON

MULT

001284

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NOV 23 1983

State Well No.

1N/3E-2/ac

State Permit No.

WATER RESOURCES DEPT.

(1) OWNER:

Name CITY OF PORTLAND
Address 1220 SW 5TH AVE
City PORTLAND State ORE 97204

(2) TYPE OF WORK (check): WELL No. 18

New Well ☒ Deepening ☐ Reconditioning ☐ Abandon ☐

If abandonment, describe material and procedure in Item 12.

(3) TYPE OF WELL:

Rotary Air ☐ Driven ☐ Domestic ☐ Industrial ☐ Municipal ☒
Rotary Mud ☐ Dug ☐ Irrigation ☐ Test Well ☐ Other ☐
☒ Bored ☐ Thermal: Withdrawal ☐ ReInjection ☐

(4) PROPOSED USE (check):

(5) CASING INSTALLED: Steel ☒ Plastic ☐
Threaded ☐ Welded ☒
36" Diam. from 16 ft. to 88 ft. Gauge 500
31.5" Diam. from 83 ft. to 88 ft. Gauge 375
26" Diam. from 88 ft. to 103 ft. Gauge 375
21" Diam. from 103 ft. to 124 ft. Gauge 375
19" Diam. from 124 ft. to 193 ft. Gauge 375

(6) PERFORATIONS:

Perforated? ☐ Yes ☒ No

Type of perforator used

Size of perforations in. by in.
perforations from ft. to ft.
perforations from ft. to ft.
perforations from ft. to ft.

(7) SCREENS:

Well screen installed? ☒ Yes ☐ No

Manufacturer's Name UOP JOHNSON
Type 31.5 STAINLESS STEEL Model No. 96
Diam. 31.5 Slot Size 100 Set from 103 ft. to 116 ft.
Diam. 31.5 Slot Size 70 Set from 124 ft. to 140 ft.

(8) WELL TESTS:

Drawdown is amount water level is lowered below static level

Was a pump test made? ☒ Yes ☐ No If yes, by whom? STRASSER
8500 gal/min. with 73.2 ft. drawdown after 24 hrs.

Air test gal/min. with drill stem at ft. hrs.

Bailer test gal/min. with ft. drawdown after hrs.

Artesian flow g.p.m.

Temperature of water Depth artesian flow encountered ft.

(9) CONSTRUCTION:

Special standards: Yes ☐ No ☒

Well seal—Material used CEMENT GROUT

Well sealed from land surface to 28 ft.

Diameter of well bore to bottom of seal 42 in.

Diameter of well bore below seal 36 in.

Number of sacks of cement used in well seal 88 sacks

How was cement grout placed? CEMENT GROUT WAS

IN FROM THE BOTTOM UP AS

THE CASING WAS REMOVED

Was pump installed? Type HP Depth ft.

Was a drive shoe used? ☒ Yes ☐ No Plugs Size: location ft.

Did any strata contain unusable water? ☐ Yes ☒ No

Type of Water? depth of strata

Method of sealing strata off

Was well gravel packed? ☐ Yes ☒ No Size of gravel: ft.

Gravel placed from ft. to ft.

(10) LOCATION OF WELL:

County MULTNOMAH Driller's well number 5598
SW 1/4 NE 1/4 Section 21 T. 1N R. 3E W.M.
Tax Lot # Lot Blk Subdivision

Address at well location:

(11) WATER LEVEL: Completed well.

Depth at which water was first found 34 ft.
Static level 10.3 ft. below land surface. Date 10/20/83
Artesian pressure lbs. per square inch. Date

(12) WELL LOG:

Diameter of well below casing

Depth drilled 195 ft. Depth of completed well 193 ft.

Formation: Describe color, texture, grain size and structure of materials; and show thickness and nature of each stratum and aquifer penetrated, with at least one entry for each change of formation. Report each change in position of Static Water Level and indicate principal water-bearing strata.

MATERIAL	From	To	SWL
BROWN CLAY	0	4	
GREY CLAY	4	16	
GREY SILT AND SAND	16	21	
GRAVEL, BOULDERS AND CLAY	21	34	
GRAVEL AND SAND	34	42	
LOOSE GRAVEL AND SILT	42	61	
BOULDERS AND GRAVEL	61	66	
GRAVEL AND SILT	66	85	
LOOSE GRAVEL	85	96	
BROWN SILT AND GRAVEL	96	126	
LOOSE GRAVEL AND SILT	126	140	
BROWN SILTY SAND	140	145	
SILT, CLAY, AND BOULDERS	145	195	

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WATER RESOURCES DEPT
SALEM, OREGON

Work started JULY 20 1983 Completed OCT 31 1983

Date well drilling machine moved off of well NOV 1 1983

Drilling Machine Operator's Certification:

This well was constructed under my direct supervision. Materials used

and information reported above are true to my best knowledge and belief.

[Signed] Paul D. Ogden Date 11/23/83

(Drilling Machine Operator)

Drilling Machine Operator's License No. WWR/1246

Water Well Contractor's Certification:

This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.

Name R.L. Strasser Drilling Co. (Type or print)

Address 8110 S.E. Sunset Lane, Portland OR. 97206

[Signed] Robert L. Strasser (Water Well Contractor)

Contractor's License No. 10 Date NOV 23 1983

NOTICE TO WATER WELL CONTRACTOR
The original and first copy of this report
are to be filed with the

WATER RESOURCES DEPARTMENT,
SALEM, OREGON 97310
within 30 days from the date of well completion.

SP-12658-690

WATER WELL REPORT
STATE OF OREGON

MULT
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DEC 15 1983

State Well No.

1N/3E-2162

WATER RESOURCES DEPT.
SALEM, OREGON

State Permit No.

(1) OWNER:

Name CITY OF PORTLAND
Address 1220 SW 5TH AVE
City PORTLAND State ORE 97204

(2) TYPE OF WORK (check):

WELL No 17

New Well ☒ Deepening ☐ Reconditioning ☐ Abandon ☐

If abandonment, describe material and procedure in Item 12.

(3) TYPE OF WELL:

Rotary Air ☐ Driven ☐
Rotary Mud ☐ Dig ☐
Bored ☐

(4) PROPOSED USE (check):

Domestic ☐ Industrial ☐ Municipal ☒
Irrigation ☐ Test Well ☐ Other ☐
Thermal ☐ Withdrawal ☐ ReInjection ☐

(5) CASING INSTALLED:

Steel ☒ Plastic ☐
Threaded ☐ Welded ☒

3 1/2" Diam. from +1 ft. to 80 ft. Gauge 500
3 1/2" Diam. from 75 ft. to 80 ft. Gauge 375

(6) PIPING INSTALLED:

3 1/2" Diam. from 135 ft. to 160 ft. Gauge 375

(6) PERFORATIONS:

Perforated? ☐ Yes ☒ No

Type of perforator used

Size of perforations in. by in.
perforations from ft. to ft.
perforations from ft. to ft.
perforations from ft. to ft.

(7) SCREENS:

Well screen installed? ☒ Yes ☐ No

Manufacturer's Name U.O.P. JOHNSON
Type STAINLESS STEEL Model No. 100
Diam. 3 1/2 Slot Size 100 Set from 80 ft. to 130 ft.
Diam. 3 1/2 Slot Size 100 Set from 135 ft. to 160 ft.

(8) WELL TESTS:

Drawdown is amount water level is lowered below static level

Was a pump test made? ☒ Yes ☐ No If yes, by whom? STRASSER
10000 gal/min with 25 ft. drawdown after 24 hrs.

Air test gal/min. with drill stem at ft. hrs.

Bailer test gal/min. with ft. drawdown after hrs.

Artesian flow g.p.m.

Temperature of water Depth artesian flow encountered ft.

(9) CONSTRUCTION:

Special standards: Yes ☐ No ☒

Well seal—Material used CEMENT GROUT

Well sealed from land surface to 28 ft.

Diameter of well bore to bottom of seal 4 1/2 in.

Diameter of well bore below seal 36 in.

Number of sacks of cement used in well seal 116 sacks

How was cement grout placed? PUMPED IN FROM

BOTTOM UP AS THE 4 1/2 IN

CASING WAS REMOVED

Was pump installed? Type HP Depth ft.

Was a drive shoe used? ☒ Yes ☐ No Plugs Size: location ft.

Did any strata contain unusable water? ☐ Yes ☒ No

Type of Water? depth of strata

Method of sealing strata off

Was well gravel packed? ☐ Yes ☒ No Size of gravel: ft.

Gravel placed from ft. to ft.

NOTICE TO WATER WELL CONTRACTOR
The original and first copy of this report
are to be filed with this

(10) LOCATION OF WELL:

County MULTNOMAH Driller's well number 5599
SE 1/4 NW 1/4 Section 21 T. 1N R. 3E W.M.

Tax Lot # Lot Blk Subdivision

Address at well location:

(11) WATER LEVEL: Completed well.

Depth at which water was first found 41 ft.
Static level 19 ft. below land surface. Date 11/16/83
Artesian pressure lbs. per square inch. Date

(12) WELL LOG:

Diameter of well below casing

Depth drilled 194 ft. Depth of completed well 165 ft.

Formation: Describe color, texture, grain size and structure of materials; and show thickness and nature of each stratum and aquifer penetrated, with at least one entry for each change of formation. Report each change in position of Static Water Level and indicate principal water-bearing strata.

MATERIAL	From	To	SWL
TOP SOIL	0	4	
SILT & CLAY	4	13	
SANDY SILT	13	25	
CLAY SAND AND GRAVEL	25	41	
GRAVEL AND SILT	41	75	
GRAVEL AND SAND	75	131	
GRAVEL BOULDERS AND SILT	131	136	
GRAVEL AND COARSE SAND	136	161	
SLIGHTLY CEMENTED GRAVEL	161	187	
GRAVEL, SILT AND SAND	187	194	

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WATER RESOURCES DEPT.
SALEM, OREGON

Work started SEPT 13 1983 Completed NOV 18 1983

Date well drilling machine moved off of well NOV 21 1983

Drilling Machine Operator's Certification:

This well was constructed under my direct supervision. Materials used and information reported above are true to my best knowledge and belief.

(Signed) Paul C. Tipton Date 12/13/83
(Drilling Machine Operator)

Drilling Machine Operator's License No. WU01246

Water Well Contractor's Certification:

This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.

Name R.W. Strasser Drilling Co.
(Person, firm or corporation) (Type or print)

Address 8110 S.E. Sunset Lane, Portland OR 97206

(Signed) Robert L. Strasser
(Water Well Contractor)

Contractor's License No. 10 Date DEC 13 1983

WATER RESOURCES DEPARTMENT,
SALEM, OREGON 97310
within 30 days from the date of well completion.

SP*12658-690

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SALEM, OREGON

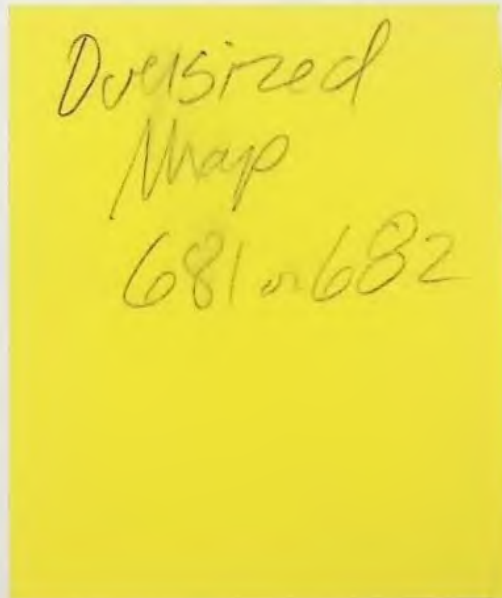
Partial Perfection Information

Permit G-10124

Water Use Reports for last three years

Incremental perfection plan form Water Management Conservation Plan

Claim of Beneficial Use place of use map identifies the City of Portland's current service boundary.



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WATER RESOURCES DEPT
SALEM, OREGON

690-320-0040

Incremental Perfection of a Municipal Water Right

(1) A municipal supplier may incrementally perfect a portion of the quantity of water authorized by any of its municipal water use permits. For the purpose of incrementally perfecting water rights, a municipal supplier means:

- (a) Any incorporated city, village, or town;
- (b) A port formed under ORS 777.005 to 777.725 and ORS 777.915 to 777.953;
- (c) A domestic water supply district formed under ORS Chapter 264; or
- (d) A water supply authority formed under ORS Chapter 450.

(2) The portion of water use that may be incrementally perfected by a municipal supplier shall not be less than 25 percent of the quantity originally authorized by permit. The perfection, or proof of appropriation, of each increment of water shall conform to the proof of appropriation requirements of OAR 690-330-0010.

(3) When a portion of a permit issued for municipal use is perfected by a municipal supplier, the remaining unperfected quantity of water shall remain in permit status without loss of priority. The increment of water perfected and confirmed by certificate shall be subtracted from the quantity of water originally authorized by permit. The remainder shall be the quantity of water subject to future perfection under the terms of the permit.

(4) A municipal supplier shall notify the Department, in writing, of its intent to incrementally perfect a portion of its water right. Written notice shall include the following information:

- (a) The quantity of water diverted from each point of diversion, by month, for the preceding three years;
- (b) A plan of how the municipal supplier intends to develop successive increments of its water right; and
- (c) Maps that show where water will be put to use. Maps accompanying notification of intent to perfect an increment of a water right shall be prepared to the specifications described in OAR 690-310-0050, except that a standard even scale less than 4" = 1 mile may be used if appropriate.

(5) Municipal suppliers that incrementally perfect less than the full quantity of water authorized by permit may request further extension of the time limit to complete construction and apply water to beneficial use for the remaining, unperfected quantity of water. OAR 690-320-0010 governing extension of time limits applies to unperfected municipal water rights.

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apps.wrd.state.or.us/apps/wr/wateruse_report/default.aspx

Water Use Report

Choose an agency: CITY OF PORTLAND; PORTLAND WATER BUREAU

CITY OF PORTLAND; PORTLAND WATER BUREAU
THOM WARREN
1120 SW 5TH AVE ROOM 500
PORTLAND, OR 97204-1926

Records per Page: 5

Report ID	Facility	Associated water rights & Description
Select 11012	WELL 1 - ALTO PARK (MULT 2824)	Cert:35676 OR * WELL #1 (1.00S-1.00E-32-NW SE) 1350 FT N & 1400 FT W FM SE COR, S32
Select 11974	WELL 34 - WEST WELL FIELD (MULT 1131)	Permit: G 10479 * WELL 34 (1.00N-2.00E-15-NE NW) 1240 FEET SOUTH & 2350 FEET EAST FROM NW CORNER, SECTION 15
Select 11975	WELL 13 - EAST WELL FIELD (MULT 1286)	Permit: G 10455 * WELL 15 (1.00N-3.00E-21-NE NW) NORTH 60 DEGREES 30 MINUTES 48 SECONDS FROM M Permit: G 8755 * EAST WELL FIELD WELL 15 (1.00N-3.00E-21-NE NW) 1000 FEET SOUTH AND 2300 FEET EAST FROM NW COR
Select 11976	WELL 12 - EAST WELL FIELD (MULT 1287)	Permit: G 10455 * WELL 16 (1.00N-3.00E-21-NE NW) NORTH 82 DEGREES 27 MINUTES 12 SECONDS FROM M Permit: G 8755 * EAST WELL FIELD WELL 16 (1.00N-3.00E-21-SW NE) 1400 FEET SOUTH AND 3300 FEET EAST FROM NW COR
Select 11977	WELL 17 - BLUE LAKE WELLS (MULT 1283)	Permit: G 10124 * WELL 17 (1.00N-3.00E-21-SW NE) 1020 FEET NORTH & 230 FEET EAST FROM THE SW CORNER, NE1/4, SE1/4

1 2 3 4 5 6 7 8 9 10 ...

Wur Report ID: 11977

Water Year	Unit	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
2011	M	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2010	M	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.02	0.0	0.0	0.0
2009	M	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.14	0.0

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SALEM, OREGON

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Water Use Report

Choose an agency: CITY OF PORTLAND; PORTLAND WATER BUREAU

CITY OF PORTLAND; PORTLAND WATER BUREAU
THOM WARREN
1120 SW 5TH AVE ROOM 500
PORTLAND, OR 97204-1926

Records per Page: 5

Report ID	Facility	Associated water rights & Description
Select 11978	WELL 18 - BLUE LAKE WELLS (MULT 1284)	Permit: G 10124 * WELL 18 (1.00N-3.00E-21-SW NE) 840 FEET NORTH & 1090 FEET EAST FROM THE SW CORNER, NE 1/4, SE 1/4, SECTION 21
Select 11979	WELL 19 - BLUE LAKE WELLS (MULT 1288)	Permit: G 10124 * WELL 19 (1.00N-3.00E-21-SW NW) 920 FEET NORTH & 365 FEET EAST FROM SW CORNER, NW 1/4, SECTION 21
Select 11991	WELL 25	Permit: G 8755 * WEST WELL FIELD WELL 6 (1.00N-2.00E-10-SW SW) 650 FEET NORTH AND 150 FEET EAST FROM SW CORNER
Select 11992	WELL 30	Permit: G 8755 * WEST WELL FIELD WELL 11 (1.00N-2.00E-10-SW SW) 650 FEET NORTH AND 150 FEET EAST FROM SW CORNER
Select 11993	WELL 6 - EAST WELL FIELD	Permit: G 8755 * EAST WELL FIELD WELL 2 (1.00N-2.00E-13-SW SW) 150 FEET NORTH AND 4000 FEET WEST FROM SE CORNER

1 2 3 4 5 6 7 8 9 10 ...

Wur Report ID: 11978

Water Year	Unit	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
2011	M	1.15	0.0	11.56	155.0	7.46	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2010	M	0.33	14.44	7.84	0.45	23.28	3.64	0.18	0.0	6.44	0.05	2.81	2.32
2009	M	0.0	29.58	0.0	0.0	0.0	0.0	0.0	0.0	0.35	11.01	12.3	0.45

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apps.wrd.state.or.us/apps/wr/wateruse_report/default.aspx

Water Use Report

Choose an agency: CITY OF PORTLAND; PORTLAND WATER BUREAU

CITY OF PORTLAND; PORTLAND WATER BUREAU
THOM WARREN
1120 SW 5TH AVE ROOM 500
PORTLAND, OR 97204-1926

Records per Page: 5

Report ID	Facility	Associated water rights & Description
Select 11978	WELL 18 - BLUE LAKE WELLS (MULT 1284)	Permit: G 10124 * WELL 18 (1.00N-3.00E-21-SW NE) 840 FEET NORTH & 1090 FEET EAST FROM THE SW CORNER, NE 1/4, SECTION
Select 11979	WELL 19 - BLUE LAKE WELLS (MULT 1288)	Permit: G 10124 * WELL 19 (1.00N-3.00E-21-SW NW) 920 FEET NORTH & 365 FEET EAST FROM SW CORNER, NW 1/4, SECTION
Select 11991	WELL 25	Permit: G 8755 * WEST WELL FIELD WELL 6 (1.00N-2.00E-10-SW SW) 650 FEET NORTH AND 150 FEET EAST FROM SW CORNER
Select 11992	WELL 30	Permit: G 8755 * WEST WELL FIELD WELL 11 (1.00N-2.00E-10-SW SW) 650 FEET NORTH AND 150 FEET EAST FROM SW CORNER
Select 11993	WELL 6 - EAST WELL FIELD	Permit: G 8755 * EAST WELL FIELD WELL 2 (1.00N-2.00E-13-SW SW) 150 FEET NORTH AND 4000 FEET WEST FROM SE CORNER

1 2 3 4 5 6 7 8 9 10 ...

Wur Report ID: 11979

Water Year	Unit	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
2011	M	0.0	0.0	0.0	152.71	0.86	0.0	0.0	1.57	0.0	0.6	8.48	8.14
2010	M	0.0	15.35	2.17	0.0	32.04	5.19	0.84	0.01	0.14	0.0	0.0	0.0
2009	M	3.44	62.63	0.0	0.0	0.0	6.21	9.85	0.0	0.0	12.86	18.77	13.95

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SALEM, OREGON

Undeveloped, Expanded, and New Water Rights

Request to Develop Additional Water Under Existing Permits

The City of Portland is requesting additional water in the amount under existing permits for the Columbia South Shore Well Field for the next 20 years, from the present to 2028. This request is to develop an additional 48.54 MGD/53.39 maximum MGD of supply from the CSSWF water rights shown in Table ES-5.

Table ES-5. Requested Groundwater Supplies by Permit, to 2028

Permit #	Monthly Volume ^a (in BG)	Millions of Gallons a Day	Maximum Diversion Rate ^b (in MGD)
G-10124 & G-10455	.54	17.84	19.62
G-8755 & G-10479	.92	30.7	33.77
Totals	1.46	48.54	53.39

^a30-90-day supply based on 30 days of pumping

^bThe maximum diversion rate is a 10 percent increase of the monthly volume to represent the capacity yield for a less-than-30-day pumping event.

The basis for the 48.54 MGD of additional supply comes from the materials presented in the supply and demand analysis (subsection 5.4) of this WMCP. This total is accounted for in Table ES-6.

Table ES-6. Accounting for Requested Groundwater Supplies

	Amounts in MGD	Maximum Diversion Rate
Total Annual ADD (1967 Weather Year) Demand Forecast for 2028	138.7 ^a	
Minus CSSWF 30-90-day Reliable Supply	-82.8 ^b	
Minus PVRWD Wells Supply Assumption	-7.36	
Total Requested over 20 Years (to 2028)	48.54	53.39 ^c

^aFrom the demand forecast for retail and wholesale service for the year 2028.

^bThis figure is based on a 10% reduction in yield capacity due to multiple well drawdown when all wells are in production, as well as a 10% out-of-service-calculation for mechanical or other operational considerations.

^cThe maximum diversion rate is a 10% increase over the total monthly volume requested to represent the capacity yield for a less-than-30-day pumping event.

The maximum diversion rate is 10 percent higher than the total volume requested to represent the less-than-30-day diversion amount. If the diversion amount is needed past 30 days, it will drop after the 30-day period to an average of the monthly production needed to meet 48.54 MGD of annual average supply. This is the same yield analysis that is applied to the reductions in overall CSSWF capacities in the summer supply planning process.

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SALEM, OREGON

4

Groundwater Collection System and Groundwater Transmission System to Powell Butte
Pipe Lengths From Hydraulic Network Model
2/10/2012

Pipe Diameter (inches)	Total Length (ft)
6	304
8	210
10	338
12	15,871
16	369
18	3,049
24	5,425
30	6,604
36	6,448
42	13,939
48	6,431
54	245
56	1,546
60	17,027
66	3,494
72	3,160
78	335
84	3,799
90	5,414
Total Length (ft):	94,009




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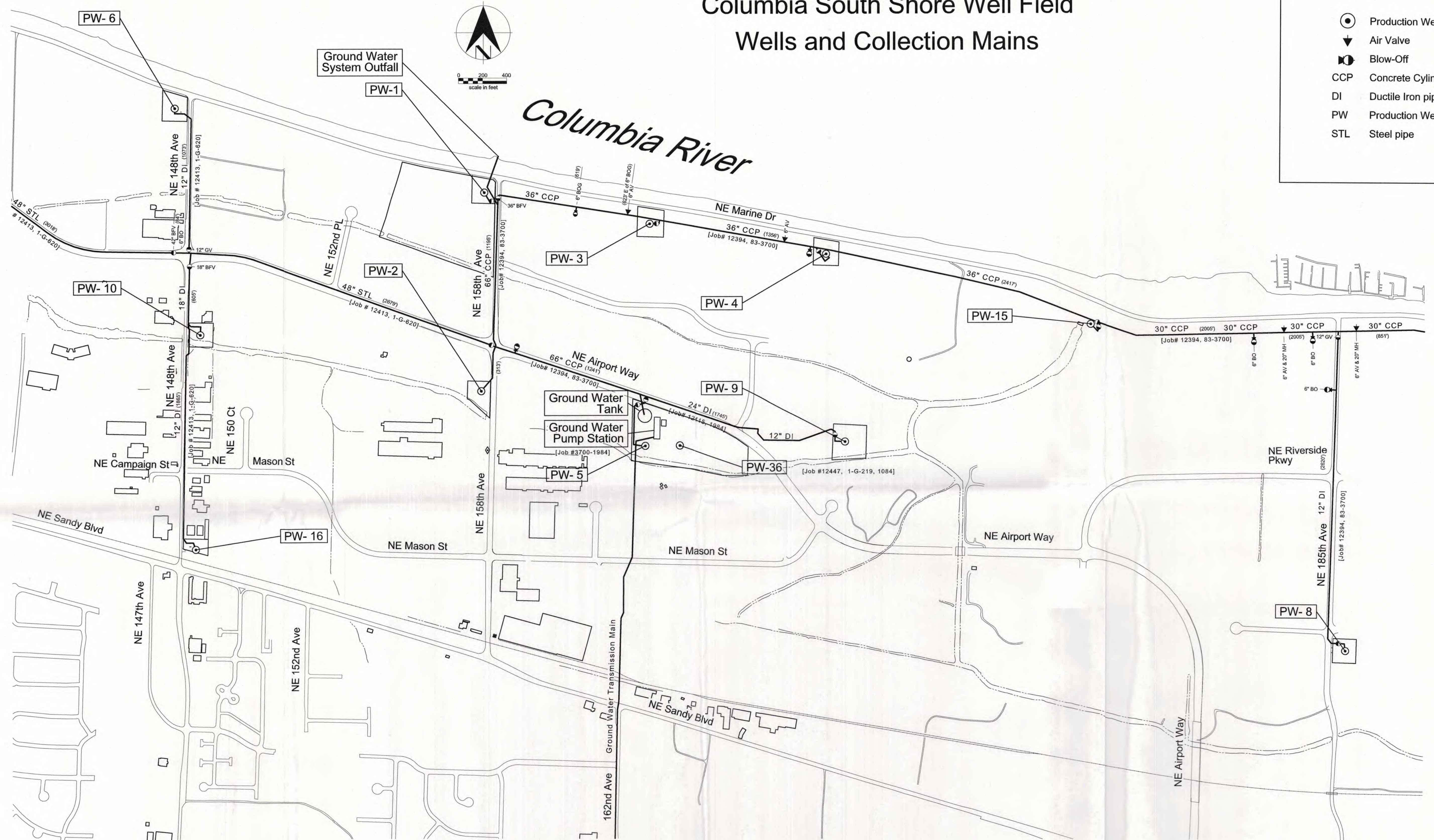
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WATER RESOURCES DEPT
SALEM, OREGON

Columbia South Shore Well Field Wells and Collection Mains

Legend

- | | |
|---|------------------------|
|  | Production Well |
|  | Air Valve |
|  | Blow-Off |
| CCP | Concrete Cylinder Pipe |
| DI | Ductile Iron pipe |
| PW | Production Well |
| STL | Steel pipe |

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SALEM, OREGON

Patrick Easley, Groundwater Program Manager



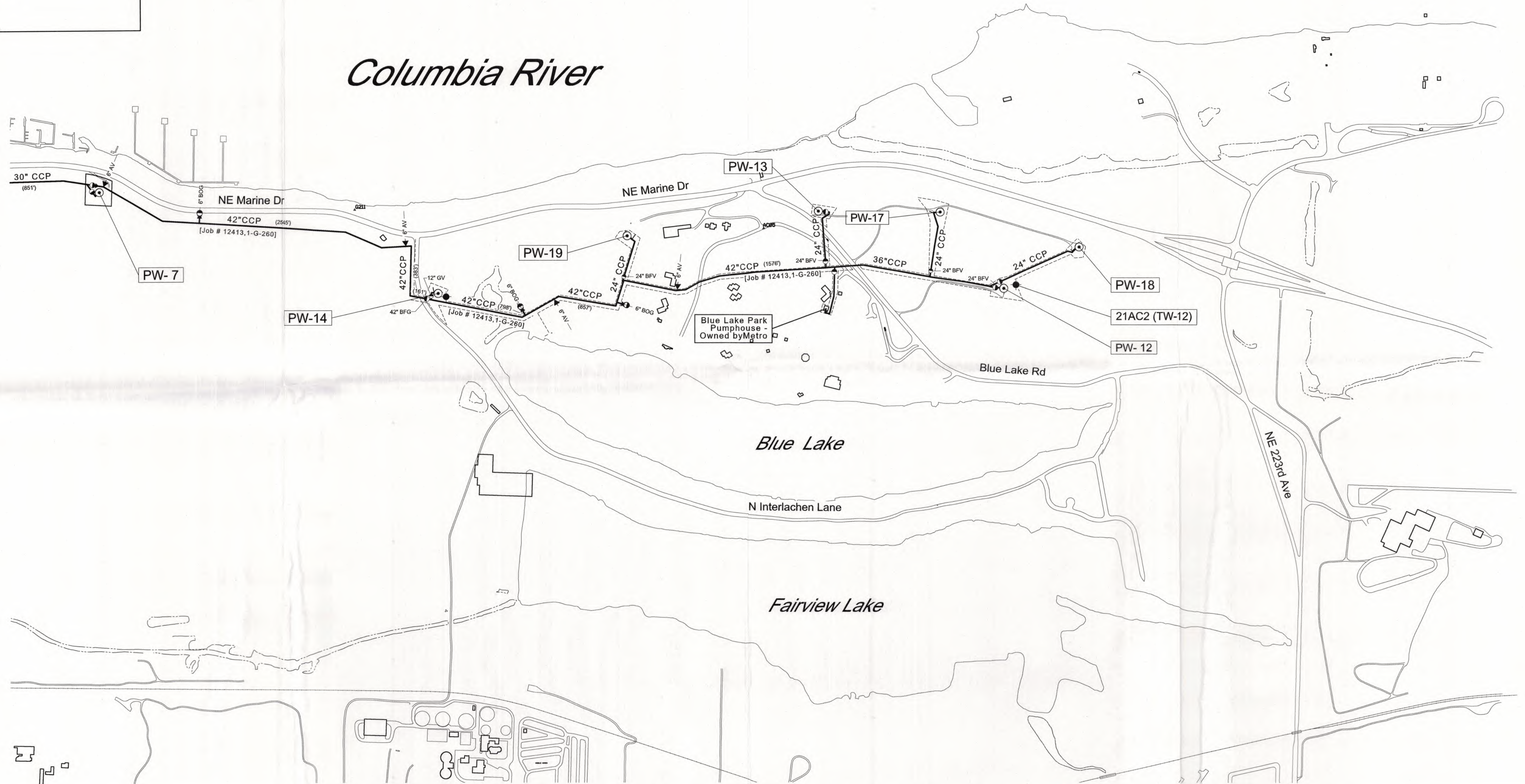
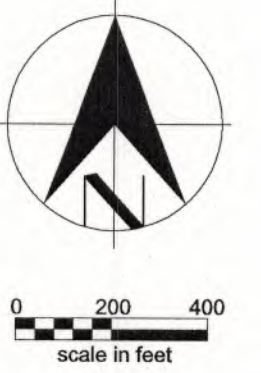
Columbia South Shore Well Field
Wells and Collection Mains

2 of 3

Legend

- Production Well
- Air Valve
- Blow-Off
- CCP Concrete Cylinder Pipe
- DI Ductile Iron pipe
- PW Production Well
- STL Steel pipe

Columbia South Shore Well Field
Wells and Collection Mains



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SALEM, OREGON



Columbia South Shore Well Field
Wells and Collection Mains

SAP Project No
1/4 Section
Sheet No
3 of 3



Randy Leonard, Commissioner
David G. Shaff, Administrator

1120 SW 5th Avenue, Room 600
Portland, Oregon 97204-1926
Information: 503-823-7404
www.portlandonline.com/water



An Equal Opportunity Employer

March 22, 2012

Oregon Water Resources Department
725 Summer Street NE, Suite "A"
Salem, Oregon 97301-1266

RE: Requesting Variance of requirement to fill in Section "E" "Storage" of COBU Reports for Permits G-10124 and G-10479.

To whom it may concern:

Portland Water Bureau is submitting partial COBU's under the 25% municipal use rule allowing municipalities to file for a Certificate of Water Right providing a minimum of 25% of total permitted Q can be beneficially proved up upon. Because of the huge number of tanks, reservoirs, and pumping stations involved in the system, I hereby respectfully request that in lieu of the entirety of Section "E" of the COBU form being filled out, the supplied schematics and information on the storage capacities and facilities be accepted instead of Section "E" being filled out. The included documents are attached with this letter and will be part of the COBU attachments as well.

Please contact me if you have further questions or need more explanation.
Sincerely,

Thompson M. Warren PLS CWRE
(503)823-7524
thom.warren@portlandoregon.gov

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SALEM, OREGON

PWB Storage System Tank Information
 From PublicOpsInfrastructure.mdb
 3/5/2012

Name	Facility Type:	Site	Capacity(mg)	Tank Material:
101ST AVENUE TANK	TANK	101st & Powell	0.5	Concrete
104TH & KLUICKITAT TANK	TANK	104th & Klickitat	4	Concrete
105TH & FREMONT TANK	TANK	105th & Fremont	0.5	Steel
109TH AVENUE TANK 1	TANK	109th Avenue	3	Steel
109TH AVENUE TANK 2	TANK	109th Avenue	0.675	Steel
127TH & BURNSIDE TANK	TANK	127th & Burnside	0.2	Elevated Steel
138TH/CENTER TANK	TANK	138th/Center Street	0.031	Steel
140TH & HALSEY TANK	TANK	140th & Halsey	0.01	Steel
144TH/CENTER TANK	TANK	144th/Center (Vivian)	0.16	Steel
148TH & HALSEY TANK	TANK	148th & Halsey	2	Concrete
160TH AVENUE TANK 1	TANK	160th Avenue	7	Concrete
160TH AVENUE TANK 2	TANK	160th Avenue	3	Concrete
160TH AVENUE TANK 3	TANK	160th Avenue	0.2	Concrete
ALFRED TANK	TANK	Alfred	0.5	Steel
ALMA TANK	TANK	Alma	1	Elevated Steel
ALTO PARK TANK	TANK	Alto Park	0.2	Concrete
ARLINGTON HEIGHTS TANK 1	TANK	Arlington Heights	0.5	Concrete
ARLINGTON HEIGHTS TANK 2	TANK	Arlington Heights	1	Concrete
ARLINGTON HEIGHTS TANK 3	TANK	Arlington Heights	3	Concrete
ARNOLD TANK 1	TANK	Arnold	0.5	Concrete
ARNOLD TANK 2	TANK	Arnold	0.5	Concrete
ARNOLD TANK 3	TANK	Arnold	0.5	Concrete
ARROWOOD TANK	TANK	Arrowood		
BERTHA TANK 1	TANK	Bertha	0.2	Concrete
BERTHA TANK 2	TANK	Bertha	0.85	Concrete
BROADWAY DR TANK	TANK	Broadway Drive	0.38	Steel
BRUGGER TANK	TANK	Brugger	0.2	Concrete
BUDDINGTON TANK	TANK	Buddington	0.25	Concrete
BURLINGAME TANK 2	TANK	Burlingame	0.38	Steel
BURLINGAME TANK 3	TANK	Burlingame	0.38	Steel
BURLINGAME TANK 4	TANK	Burlingame	0.86	Steel
CALVARY STANDPIPE (SYLVAN) TANK	TANK	Calvary		Steel
CALVARY TANK	TANK	Calvary	1	Steel
CANBY HIGH TANK	TANK	Canby	0.1	Elevated Steel
CANBY LOW TANK	TANK	Canby	0.35	Concrete
CLATSOP TANK	TANK	Clatsop	3	Steel
COLLINS VIEW TANK	TANK	Collins View	0.38	Steel
CONDUIT 2 SURGE TANK (LUSTED)	TANK	Lusted		Steel
CONDUIT 3 SURGE TANK (LUSTED)	TANK	Lusted		Steel
CONDUIT 4 SURGE TANK (LUSTED)	TANK	Lusted		Steel
COUNCIL CREST TANK	TANK	Council Crest	0.5	Steel
DENVER TANK	TANK	Denver	3	Elevated Steel
FOREST PARK HIGH TANK	TANK	Forest Park High	0.5	Elevated Steel
FREEMAN TANK	TANK	Freeman	0.335	Concrete
GREENLEAF TANK 1	TANK	Greenleaf	0.03	Steel
GREENLEAF TANK 2	TANK	Greenleaf	0.3	Steel
GROUNDWATER TANK	TANK	Groundwater	2	Steel

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HAYDEN ISLAND TANK 1	TANK	Hayden Island 1	0.5 Steel
HAYDEN ISLAND TANK 4	TANK	Hayden Island 4	
HAYDEN ISLAND TENNIS COURT TANK	TANK	Hayden Island 3	0.55 Concrete
HAZELWOOD TANK	TANK	Hazelwood Office	0.5 Elevated Steel
HEADWORKS BEAR CREEK REDWOOD T.	TANK	Headworks Bear Creek	Wood
HEADWORKS DAM 1 RESERVOIR	RESERVOIR	Headworks Dam 1	10,000 Concrete Dam
HEADWORKS DAM 2 RESERVOIR	RESERVOIR	Headworks Comple	6,500 Earthfill/Rock Dam
KELLY BUTTE TANK	TANK	Kelly Butte	10 Steel
KINGS HEIGHTS TANK	TANK	Kings Heights	0.2 Concrete
LEXINGTON TANK	TANK	Lexington	1 Steel
LOWER WILLBRIDGE TANK	TANK	Lower Willbridge	0.13 Concrete
MARIGOLD TANK	TANK	Marigold	1 Elevated Steel
MARQUAM HILL TANK 1	TANK	Marquam Hill	0.287 Steel
MARQUAM HILL TANK 2	TANK	Marquam Hill	2.2 Prestressed Concrete
MAYFAIR TANK	TANK	Mayfair	5.6 Steel
MT SCOTT TANK	TANK	Mt Scott	0.4 Steel
NEVADA COURT TANK	TANK	Nevada Court	0.617 Concrete
NORTH LINNTON TANK	TANK	North Linnton	1 Steel
PARKROSE WELLS TANK	TANK	Well 38	
PATTON TANK	TANK	Patton	0.4 Elevated Steel
PENRIDGE TANK	TANK	Penridge	0.045 Steel
PITTOCK TANK	TANK	Pittock	1 Concrete
PORTLAND HEIGHTS TANK 1	TANK	Portland Heights	0.6 Concrete
PORTLAND HEIGHTS TANK 2	TANK	Portland Heights	0.5 Concrete
PORTLAND HEIGHTS TANK 3	TANK	Portland Heights	1.8 Prestressed Concrete
POWELL BUTTE RESERVOIR NORTH	RESERVOIR	Powell Butte	24.841 Concrete
POWELL BUTTE RESERVOIR SOUTH	RESERVOIR	Powell Butte	24.91 Concrete
RAYMOND STREET TANK	TANK	Raymond Street	2
RICHLAND TANK	TANK	Richland Tank	0.2 Elevated Steel
RIVERGATE TANK	TANK	Rivergate	1.5 Steel
ROCKY BUTTE TANK	TANK	Rocky Butte Tank	0.5 Steel
ROSE PARKWAY TANK	TANK	Rose Parkway	0.5 Elevated Steel
SALMON STREET TANK	TANK	Salmon Street	Elevated Steel
SALTZMAN HYDRO TANK	TANK	Saltzman	Steel
SALTZMAN TANK	TANK	Saltzman	0.001 Steel
SAM JACKSON TANK 1	TANK	Sam Jackson	Prestressed Concrete
SAM JACKSON TANK 2	TANK	Sam Jackson	2.75 Prestressed Concrete
SELLWOOD TANK	TANK	Sellwood Tank	Elevated Steel
SHERWOOD FIELD TANK	TANK	Sherwood Field	0.38 Steel
ST JOHNS TANK 1	TANK	St Johns	0.36 Steel
ST JOHNS TANK 2	TANK	St Johns	1.5 Elevated Steel
STEPHENSON TANK 1	TANK	Stephenson	1 Concrete
STEPHENSON TANK 2	TANK	Stephenson	0.09 Concrete
STEPHENSON TANK 3	TANK	Stephenson	0.25 Concrete
TABOR RESERVOIR 1	RESERVOIR	Tabor Complex	12 Concrete
TABOR RESERVOIR 5	RESERVOIR	Tabor Complex	49 Concrete
TABOR RESERVOIR 6 NORTH	RESERVOIR	Tabor Complex	31.9 Concrete
TABOR RESERVOIR 6 SOUTH	RESERVOIR	Tabor Complex	31.9 Concrete
TABOR RESERVOIR 7	RESERVOIR	Tabor Reservoir 7	0.2 Concrete
TEXAS TANK	TANK	Texas	0.615 Concrete
UPPER LINNTON TANK	TANK	Upper Linnton	0.13 Concrete
UPPER WHITWOOD TANK	TANK	Upper Whitwood	0.13 Concrete

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UPPER WILLBRIDGE TANK	TANK	Upper Willbridge	0.065 Concrete
VERMONT HILLS TANK 2	TANK	Vermont Hills	0.577 Concrete
VERMONT HILLS TANK 3	TANK	Vermont Hills	0.867 Steel
VERMONT HILLS TANK 4	TANK	Vermont Hills	0.527 Concrete
VERMONT HILLS TANK 5	TANK	Vermont Hills	2.798 Prestressed Concrete
VERNON ELEVATED TANK	TANK	Vernon	1 Elevated Steel
VERNON INTERMEDIATE (LOW COMBO) TANK	TANK	Vernon	3.2 Steel
VERNON STANDPIPE (HIGH COMBO) TANK	TANK	Vernon	2.5 Elevated Steel
WASHINGTON PARK RESERVOIR 3	RESERVOIR	Washington Park Co	16.4 Concrete
WASHINGTON PARK RESERVOIR 4	RESERVOIR	Washington Park Co	17.6 Concrete
WESTWOOD TANK	TANK	Westwood	1 Prestressed Concrete
WHITWOOD TANK	TANK	Whitwood Tank	0.13 Concrete
WILLALATIN TANK	TANK	Willalatin	0.2 Elevated Steel
WILLAMETTE HEIGHTS TANK	TANK	Willamette Heights	0.06 Concrete

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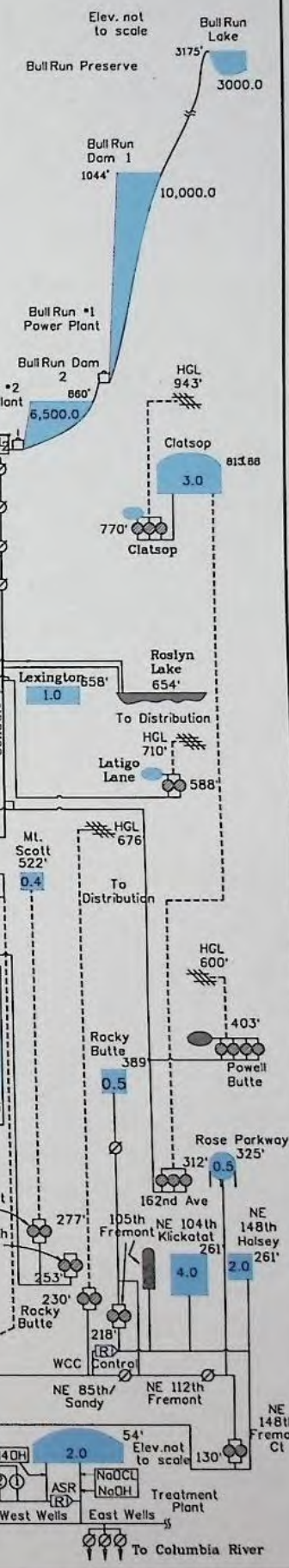
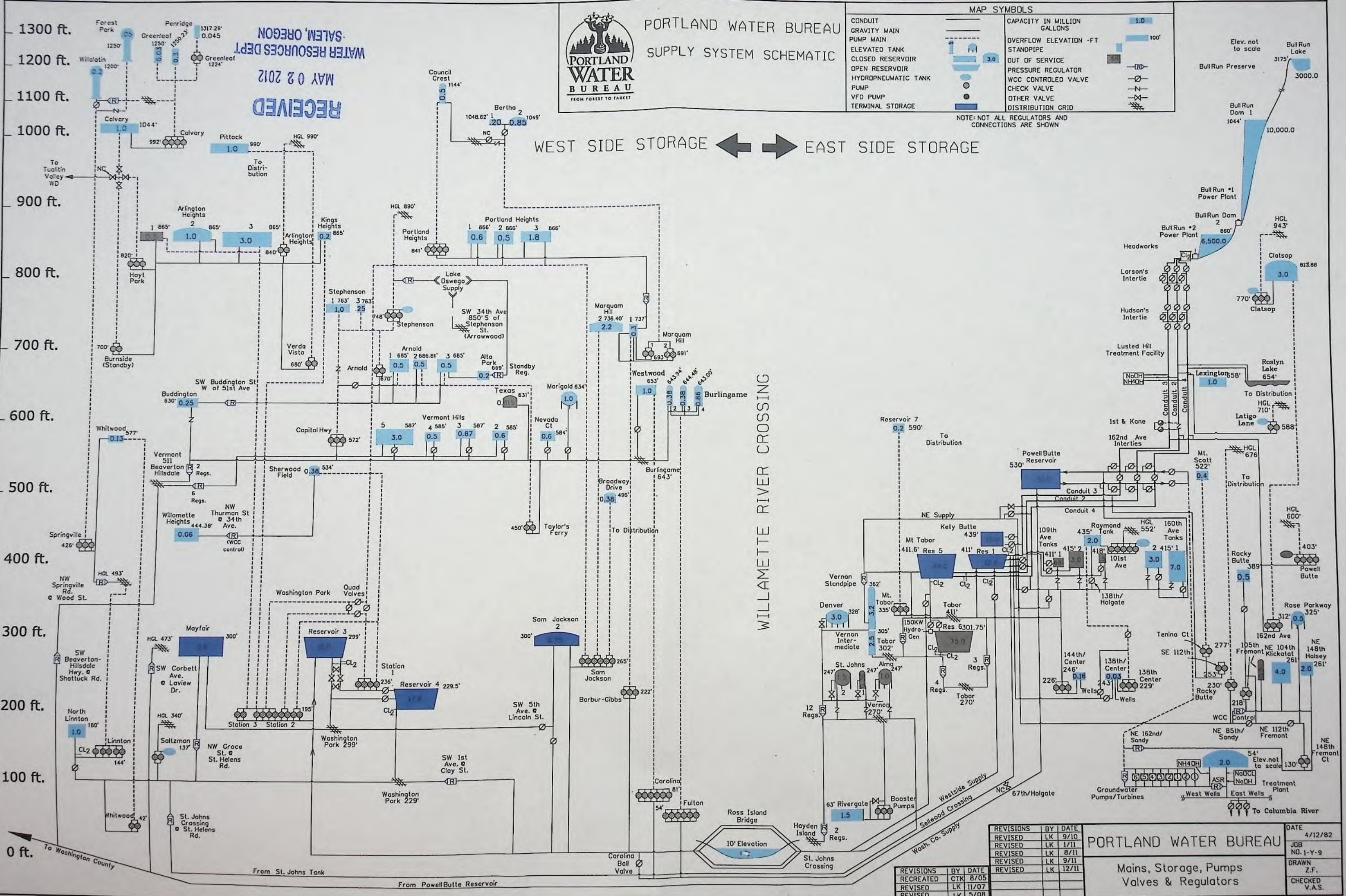
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PORTLAND WATER BUREAU
SUPPLY SYSTEM SCHEMATIC

MAP SYMBOLS	
CONDUIT	CAPACITY IN MILLION GALLONS
GRAVITY MAIN	1.0
PUMP MAIN	
ELEVATED TANK	OVERFLOW ELEVATION - FT
CLOSED RESERVOIR	STANDPIPE
OPEN RESERVOIR	OUT OF SERVICE
HYDROPNEUMATIC TANK	PRESSURE REGULATOR
PUMP	WCC CONTROLLED VALVE
VFD PUMP	CHECK VALVE
TERMINAL STORAGE	OTHER VALVE
	DISTRIBUTION GRID

NOTE: NOT ALL REGULATORS AND CONNECTIONS ARE SHOWN



REVISIONS			DATE
REVISOR	BY	DATE	DATE
REVISOR	LK	9/10	4/12/82
REVISOR	LK	1/11	
REVISOR	LK	8/11	
REVISOR	LK	9/11	
REVISOR	LK	12/11	

REVISIONS	BY	DATE
RECREATED	CTK	8/05
REVISOR	LK	11/07
REVISOR	LK	5/08

PORTLAND WATER BUREAU		JOB NO. 1-Y-9
Mains, Storage, Pumps Valves & Regulators		DRAWN Z.F.
		CHECKED V.A.S.

Warren, Thom

From: Gerry Clark [gerald.e.clark@state.or.us]
Sent: Wednesday, March 28, 2012 1:40 PM
To: Warren, Thom
Subject: Waiver Request Approval - Section "E" of Claim form (Reservoirs)

Thom,

I received your request for a waiver from completing Section "E" of the Claim for Permits G-10124 and G-10479. Your request indicated that rather than complete the referenced section of the form, that you supply a list and description of the City's reservoirs/tanks along with an overall schematic drawing of the reservoirs/tanks.

Your request for a waiver concerning the completion of Section "E" of the Claim form and supplying the list and schematic is approved as requested.

Please let me know if you have any additional quesitons.

Gerry

Gerry Clark
Water Right Services Division
Water Resources Department
725 Summer Street NE, Suite A
Salem, Oregon 97301

Phone: 503-986-0811
Fax: 503-986-0901

WRD Home Page: www.wrd.state.or.us

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3/28/2012



CITY OF
PORTLAND
OFFICE OF
TRANSPORTATION

Jim Francesconi, Commissioner
1120 S.W. 5th Avenue, Suite 800
Portland, Oregon 97204-1914
(503) 823-5185
FAX (503) 823-7576 or 823-7371
TDD 823-6868

BLUE LAKE
PARK

EXTRAS

Brant
Williams
Director

Eileen
Argentina
System
Management

Don
Gardner
Engineering &
Development

Jeanne
Nyquist
Maintenance

Richard
Steinbrugge
Finance

Laurel
Wentworth
Planning

February 21, 2003

TRANSMITTAL MEMO

To: Multnomah County Recorder's Office
Bld. 503/Rm. 158

From: City of Portland, Right-of-Way Acquisition
Heidi M. Ware
Phone: 503-823-7166
Bld. 106/Rm. 800

Subject: **Document Recording**
Bureau of Water Works Access & Pipeline Easement
BLUE LAKE WELLS

Please record the attached conveyance documents in Multnomah County Deed Records, bill the City of Portland, Transportation Engineering & Development Account No. 1800, and then return them to this office at **Building 106/Room 800**. Should you have any questions, please call me at the phone number shown above.

Thank you for your assistance.

15946 563/3291
Activity / Project

Attachment

BES _____
BTED _____
BWW W

\\BWW-M-RECORD

Recorded in MULTNOMAH COUNTY, OREGON
C. Swick, Deputy Clerk

ATESB

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Total : 284.00

2003-039896

02/21/2003 01:27:18pm

**WATER RESOURCES DEPT
SALEM, OREGON**

⑦

2551
4

ACCESS & PIPELINE EASEMENT AGREEMENTS

GRANTOR: METRO, a municipal corporation of the State of Oregon

GRANTEE: BUREAU OF WATER WORKS of the CITY OF
PORTLAND, a municipal corporation of the State of Oregon

SITE LOCATION: BLUE LAKE PARK
MULTNOMAH COUNTY, OREGON

TRUE AND ACTUAL
CONSIDERATION: \$ 1.00 and other value received.

AFTER RECORDING
RETURN TO: City of Portland, Bureau of Water Works
Engineering Services, Real Estate Section
1120 SW Fifth Avenue
Portland, Or. 97204-1926

MAIL TAX
STATEMENTS TO: Not Applicable (No Charge)

Recorded in MULTNOMAH COUNTY, OREGON
C. Swick, Deputy Clerk
A49 54
Total : 284.00 ATESB

2003-039896 02/21/2003 01:27:18pm

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SALEM, OREGON

54

**BUREAU OF WATER WORKS
CITY OF PORTLAND, OREGON**

WATER RESOURCES DEPT
SALEM, OREGON

GRANTEE:

BUREAU OF WATER WORKS OF THE CITY OF PORTLAND, a municipal corporation of the State of Oregon

By: 

Name: Stan VandeBergh, P.E.

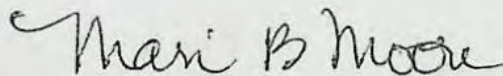
Title: Chief Engineer, Bureau of Water Works

STATE OF OREGON)

) ss

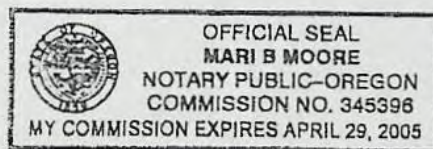
COUNTY OF MULTNOMAH)

On this 23rd day of January, 2003, before me personally appeared Stan VandeBergh, whose identity is personally known to me (or proved to me on the basis of satisfactory evidence) to be the person whose name is subscribed to this instrument, and acknowledged that he executed the same as Chief Engineer of, and on behalf of the Bureau of Water Works of the City of Portland, a municipal corporation of the State of Oregon, by and pursuant to authority granted to the Chief Engineer of said Bureau by Ordinance Numbers 172920 and 172921, both approved December 9, 1998 by the City Council of the City of Portland.



NOTARY PUBLIC FOR OREGON

My commission expires: 4/29/05



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SALEM, OREGON

EXHIBIT "B"

LEGAL DESCRIPTION
FOR
AN ACCESS EASEMENT
TO PRODUCTION WELL # 12
PORTLAND WATER BUREAU
January 31, 2002

An access easement for the purpose of ingress and egress to maintain Production Well # 12 groundwater facilities, including electrical services to this wellsite if necessary. Said easement being a portion of that tract of land described in deed to Metro, a municipal corporation, dated April 10, 1997, recorded as Fee # 97-052900, Multnomah County Deed Records, said tract of land being situated in the John Crosby DLC # 40, as projected in the North half of Section 21, Township 1 North, Range 3 East, Willamette Meridian, Multnomah County, State of Oregon, and being more particularly described as follows:
Beginning at a point on the easterly Right of Way line of NE Blue Lake Park Rd which bears S 42°43'49" E, 764.00' from a ½" diameter iron pipe set in a monument box in the centerline of NE Blue Lake Park Road, said pipe being Engineers Centerline Station 543+02.42 per Multnomah County Highway Dept. Survey # B3/1, said point being the true point of beginning of the following described easement;
thence, N79°42'44"E, 111.83' to a point; thence N53°40'02"E, 67.87' to a point; thence N23°32'50"E, 138.95' to a point; thence N44°34'42"E, 75.10' to a point on the southerly line of a 20' wide ground water line easement; thence following said southerly easement line S82°10'22"E, 235.45' to a point; thence S79°39'09"E, 189.87' to a point; thence N67°10'09"E, 4.13' to a point; thence S73°33'29"E, 20.73' to a point on the easement boundary of Well Site #12 in Blue Lake Park; thence following the boundary of Well Site #12 S12°51'11"W, 30.06' to a point; thence leaving the boundary of Well Site #12 N73°33'30"W, 98.27' to a point; thence N80°52'48"W, 246.12' to a point; thence N83°04'48"W, 62.23' to a point; thence S76°51'14"W 27.93' to a point; thence S44°34'42"W, 54.49' to a point; thence S23°32'50"W,

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141.46' to a point; thence S53°40'02"W, 82.88' to a point; thence S79°42'45"W, 101.31' to a point to a point on the easterly R of W of NE Blue Lake Park Rd; thence along said easterly R of W line N40°28'49"W, 34.71' to the true point of beginning, and containing 0.488 ac. +/-.

NOTE: THIS DESCRIPTION IS BASED ON NAD83/91 OREGON NORTH ZONE GRID COORDINATE VALUES. ANY ATTEMPT TO RETRACE THIS DESCRIPTION USING TERRESTRIAL SURVEY METHODS SHOULD BE PRECEDED BY DIVIDING THE COURSE DISTANCES BY THE APPROPRIATE COMBINED SCALE FACTOR (0.99991655) USED FOR THIS PROJECT.

Page 2 of 2

I:\thomw\csspilot\bluelakepark\rmhroadeasements\TMWS12roadeasement.doc

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 S. 20
 T1N R3E
 NE.
 C.B. PULLEN
 D.L.C.
 LS 954
 1989
 1994
 FD. 4 1/4" DIA. BRASS DISK
 IN CONCRETE - NE CORNER
 GEORGE B. PULLEN D.L.C.
 PER BT. BOOK C, PAGE 472

N.E. MARINE DRIVE

SCALE 1" = 100 FEET

BIG EDDY MARINA, INC.
 BK. 2658, PG. 718
 T.L. 300

METRO
 FEE 97-052900
 (PARCEL IV)
 T.L. 500

METRO
 FEE 97-052900
 PARCEL IV)
 T.L. 599

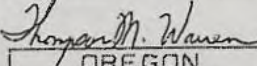
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EXHIBIT "C"

REGISTERED
 PROFESSIONAL
 LAND SURVEYOR


 OREGON
 JULY 16, 1987
 THOMPSON M. WARREN
 2313

EXPIRES: 06/30/04

THE COURSES SHOWN HEREON ARE BASED ON OREGON NORTH ZONE GRID
 COORDINATES. ANY ATTEMPT TO RETRACE THIS DESCRIPTION USING TERRESTRIAL
 SURVEY METHODS SHOULD BE PRECEDED BY USING THE APPROPRIATE GRID TO
 GROUND CONVERSION TO THE COURSE DISTANCES. COMBINED SCALE FACTOR
 IS: 0.99991655.



CITY OF PORTLAND
 BUREAU OF WATER WORKS

SKETCH OF ACCESS ROAD
 EASEMENT FOR PRODUCTION
 WELL # 14

DATE: 1/31/2002

PROJ. NO. 3047

DRAWN BY: TMW, PRE.

SCALE: 1" = 100 FT.

EXHIBIT "D"

LEGAL DESCRIPTION
FOR
AN ACCESS EASEMENT
TO PRODUCTION WELL # 14
PORTLAND WATER BUREAU
January 31, 2002

An access easement for the purpose of ingress and egress to maintain Production Well # 14 groundwater facilities, including electrical services to this wellsite if necessary. Said easement being a portion of that tract of land described in deed to Metro, a municipal corporation, dated April 10, 1997, recorded as Fee # 97-052900, Multnomah County Deed Records, said tract of land being situated in the North East $\frac{1}{4}$ of Section 20, Township 1 North, Range 3 East, Willamette Meridian, Multnomah County, State of Oregon, and being more particularly described as follows:

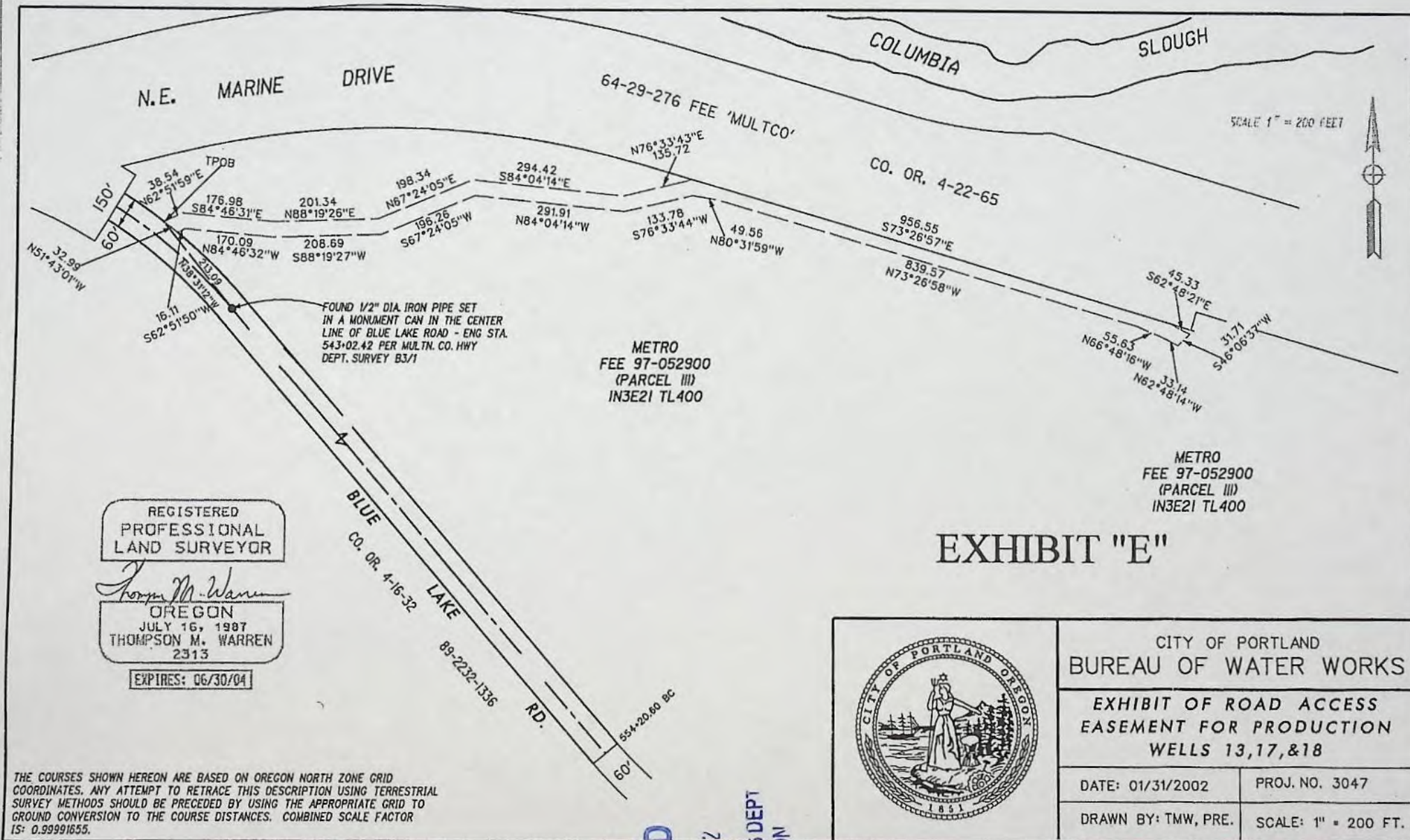
Beginning at a point on the easterly Right of Way line of NE Interlachen Lane which bears South $38^{\circ}17'45''$ East 1042.24' from the Northeast Corner of G.B. Pullen DLC # 44, said point being within the NE one-quarter of Section 20, Township 1 North, Range 3 East, Willamette Meridian and being the True Point of Beginning of the following described easement; thence, $N19^{\circ}27'28''W$, 177.02' to a point on the easement boundary of Well Site #14 in Blue Lake Park; thence along said Well Site easement $S79^{\circ}07'12''E$, 34.76' to a point; thence $S19^{\circ}27'28''E$, 218.26' to a point on the right of way line of NE Interlachen Lane; thence $N47^{\circ}10'43''W$, 36.49' along said right of way to the beginning of a 547.96' radius curve to the right; thence along the arc of said curve 29.52' (the chord of which bears $N45^{\circ}38'08''W$ a distance of 29.52') to the True Point of Beginning, and containing 0.126 acres, +/-.

NOTE: THIS DESCRIPTION IS BASED ON NAD83/91 OREGON NORTH ZONE GRID COORDINATE VALUES. ANY ATTEMPT TO RETRACE THIS DESCRIPTION USING TERRESTRIAL SURVEY METHODS SHOULD BE PRECEDED BY DIVIDING THE COURSE DISTANCES BY THE APPROPRIATE COMBINED SCALE FACTOR (0.99991655) USED FOR THIS PROJECT.

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SALEM, OREGON

EXHIBIT "F"

LEGAL DESCRIPTION
FOR
AN ACCESS EASEMENT
FOR PRODUCTION WELLS 13, 17, & 18
PORTLAND WATER BUREAU.
January 31, 2002

An access easement for the purpose of ingress and egress to maintain certain groundwater facilities, including electrical services to these wellsites if necessary. Said easement being a portion of that tract of land described in deed to Metro, a municipal corporation, dated April 10, 1997, recorded as Fee # 97-052900, Multnomah County Deed Records, said tract of land being situated in the John Crosby DLC # 40, as projected in the North half of Section 21, Township 1 North, Range 3 East, Willamette Meridian, Multnomah County, State of Oregon, and being more particularly described as follows:

Beginning at a point on the easterly Right of Way line of NE Blue Lake Park Rd which bears N 38°31'12" W, 213.09' from a ½" diameter iron pipe set in a monument box in the centerline of NE Blue Lake Park Road, said pipe being Engineers Centerline Station 543+02.42 per Multnomah County Highway Dept. Survey # B3/1, said point being the true point of beginning of the following described easement; thence, N62°51'59"E, 38.54' to a point; thence S84°46'31"E, 176.98' to a point; thence N88°19'26"E, 201.34' to a point; thence N67°24'05"E, 198.34' to a point; thence S84°04'14"E, 294.42' to a point; thence N76°33'43"E, 135.72' to a point on the southerly R of W of NE Marine Dr.; thence following the southerly R of W of NE Marine Dr. S73°26'57"E, 956.55' to a point; thence leaving said R of W S62°48'21"E, 45.33' to a point on the easement boundary of Well Site #18 in Blue Lake Park; thence following the boundary of Well Site #18 S46°06'37"W, 31.71' to a point on the boundary of Well Site #18; thence leaving the boundary of Well Site #18 N62°48'14"W, 33.14' to a point; thence N66°48'16"W, 55.63' to a point; thence N73°26'58"W, 839.57' to a point; thence N 80°31'59"W, 49.56' to a point; thence S76°33'44"W,

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WATER RESOURCES DEPT
SALEM, OREGON

133.78' to a point; thence N84°04'14"W, 291.91' to a point; thence S67°24'05"W, 196.26' to a point; thence S88°19'27"W, 208.69' to a point; thence N84°46'32"W, 170.09' to a point; thence S62°51'50"W, 16.11' to a point on the easterly R of W of NE Blue Lake Park Rd; thence along said easterly R of W line following the arc of a 1009.93' radius curve to the left a distance of 32.99', the chord of which bears N51°43'02"W a distance of 32.99' to the true point of beginning, and containing 1.26 acres , +/-.

NOTE: THIS DESCRIPTION IS BASED ON NAD83/91 OREGON NORTH ZONE GRID COORDINATE VALUES. ANY ATTEMPT TO RETRACE THIS DESCRIPTION USING TERRESTRIAL SURVEY METHODS SHOULD BE PRECEDED BY DIVIDING THE COURSE DISTANCES BY THE APPROPRIATE COMBINED SCALE FACTOR (0.99991655)USED FOR THIS PROJECT.

PAGE 2 OF 2

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WATER RESOURCES DEPT
SALEM, OREGON



FD. 4 1/4" DIA. BRASS DISK
IN CONCRETE - NE CORNER
GEORGE B. PULLEN DLC
PER BT. BOOK C, PAGE 472

LINE TABLE

L1 = S 10°52'49" W, 51.81'
L2 = S 04°19'02" W, 56.38'

CURVE TABLE

C-1	C-2
R=949.93'	R=547.96'
L=32.50'	L=24.99'
Δ=01°57'38"	Δ=02°36'48"
CB=N42°24'48"W	CB=S25°57'25"E
CD=32.50'	CD=24.99'

D.L.C. 44
3020.41
S1°23'49"W
G. P. PULLEN

BIG EDDY MARINA, INC.
BK. 2658, PG. 718
T.L. 300

TRUE POINT OF
BEGINNING

METRO
FEE 97-052900
(PARCEL IV)
T.L. 599



FD. 4 1/4" DIA. BRASS DISK
IN CONCRETE - NW CORNER
WM. TAYLOR DLC. PER
BT. BOOK C, PAGE 153

CERECHINO, ET AL
FEE 96-109768
T.L. 100

EXHIBIT "G"

NOTE:

THE COURSES SHOWN HEREON ARE BASED ON OREGON NORTH ZONE GRID
COORDINATES. ANY ATTEMPT TO RETRACE THIS DESCRIPTION USING TERRESTRIAL
SURVEY METHODS SHOULD BE PRECEDED BY USING THE APPROPRIATE GRID TO
GROUND CONVERSION TO THE COURSE DISTANCES. COMBINED SCALE FACTOR
IS: 0.99991655.

COLUMBIA RIVER

N.E. MARINE DRIVE

METRO
FEE 97-052900
(PARCEL IV)
T.L. 500

LIMITS OF 20 FOOT WIDE
WATERLINE EASEMENT

METRO
FEE 97-052900
(PARCEL VII)
T.L. 800

BLUE LAKE

CO. OR. 7-16-42
FEE 'MULTCO'

SECTION 20
SECTION 21

SCALE 1" = 200 FEET

SEE SHEET 2 OF 2

METRO
FEE 97-052900
(PARCEL V)
T.L. 600

METRO, FEE 97-052900
(PARCEL VI), T.L. 700

METRO
FEE 97-052900
(PARCEL III)
T.L. 400

REGISTERED
PROFESSIONAL
LAND SURVEYOR

OREGON

JULY 14, 1998
PAUL R. EJGIRD
2858

EXPIRES: 12/31/03



CITY OF PORTLAND
BUREAU OF WATER WORKS

EXHIBIT OF 20 FOOT WIDE
WATERLINE &
WELLSITE EASEMENT

DATE: 01/17/2002

PROJ. NO. 3047

DRAWN BY: PRE,
SHEET 1 OF 2

SCALE: 1" = 200 FT.

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RESOURCES DEPT
SALEM, OREGON

COLUMBIA

RIVER

N.E. MARINE DRIVE
CO. OR. 7-16-42

N.E. MARINE DRIVE



SCALE 1" = 200 FEET

CURVE TABLE

C-1	C-2
R=949.93'	R=547.96'
L=32.50'	L=24.99'
Δ=01°57'36"	Δ=02°38'48"
CB=N42°24'48"W	CB=S25°57'25"E
CD=32.50'	CD=24.99'

METRO
FEE 97-052900
(PARCEL III)
T.L. 400METRO
FEE 97-052900
(PARCEL IV)
T.L. 500LIMITS OF 20 FOOT WIDE
WATERLINE EASEMENTLIMITS OF 20 FOOT WIDE
WATERLINE EASEMENT

EXHIBIT "H"

SEE SHEET 1 OF 2

METRO
FEE 97-052900
(PARCEL III)
T.L. 400REGISTERED
PROFESSIONAL
LAND SURVEYOROREGON
JULY 14, 1998
PAUL R. EUGIRD
2858

EXPIRES: 12/31/03

JOHN CROSBY

CITY OF PORTLAND
BUREAU OF WATER WORKSEXHIBIT OF 20 FOOT WIDE
WATERLINE &
WELLSITE EASEMENT

DATE: 01/17/2002

PROJ. NO. 3047

DRAWN BY: PRE.
SHEET 2 OF 2

SCALE: 1" = 200 FT.

NOTE:

THE COURSES SHOWN HEREON ARE BASED ON OREGON NORTH ZONE GRID COORDINATES. ANY ATTEMPT TO RETRACE THIS DESCRIPTION USING TERRESTRIAL SURVEY METHODS SHOULD BE PRECEDED BY USING THE APPROPRIATE GRID TO GROUND CONVERSION TO THE COURSE DISTANCES. COMBINED SCALE FACTOR IS: 0.99991655.

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WATER RESOURCES DEPT
SALEM, OREGON

EXHIBIT "I"

LEGAL DESCRIPTION
FOR
AN EASEMENT FOR A
WATERLINE AND RELATED STRUCTURES
(EASEMENT NO. 1)
PORTLAND WATER BUREAU
January 17, 2002

A TRACT OF LAND BEING A PORTION OF THAT TRACT OF LAND DESCRIBED IN DEED TO METRO, DATED APRIL 10, 1997 RECORDED AS FEE NO. 97-052900, MULTNOMAH COUNTY DEED RECORDS, SITUATED IN THE NE. 1/4 OF SECTION 20, THE NORTH HALF OF SECTION 21 AND A PORTION IN THE JOHN CROSBY DLC., ALL IN TOWNSHIP 1 NORTH, RANGE 3 EAST, WILLAMETTE MERIDIAN, MULTNOMAH COUNTY, STATE OF OREGON, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING AT A POINT ON THE EAST RIGHT OF WAY LINE OF NE. INTERLACHEN LANE, COUNTY ROAD NO. 4036 AS ESTABLISHED IN COUNTY ORDINANCE DATED MAY 29, 1969, AND SHOWN ON MULTNOMAH COUNTY HIGHWAY DEPT. SURVEY D25/9, SAID POINT OF BEGINNING BEARS SOUTH 38°46'18" EAST AND A DISTANCE OF 882.07 FEET FROM THE NE CORNER OF THE GEORGE B. PULLEN, DLC. BEING A 4 1/4" DIA. BRASS DISK IN CONCRETE; THENCE SOUTH 79°07'13" EAST, LEAVING THE SAID EAST RIGHT OF WAY LINE A DISTANCE OF 645.27 FEET TO A POINT; THENCE SOUTH 82°24'33" EAST A DISTANCE OF 95.84 FEET TO A POINT; THENCE NORTH 60°01'56" EAST A DISTANCE OF 81.57 FEET TO A POINT; THENCE SOUTH 29°28'29" EAST A DISTANCE OF 188.38 FEET TO A POINT; THENCE NORTH 60°31'31" EAST A DISTANCE OF 20.00 FEET TO A POINT; THENCE NORTH 29°28'29" WEST A DISTANCE OF 188.36 FEET TO A POINT; THENCE NORTH 60°47'15" EAST A DISTANCE OF 209.52 FEET TO A POINT; THENCE SOUTH 80°33'36" EAST A DISTANCE OF 446.37 FEET TO A POINT; THENCE NORTH 17°34'51" EAST A DISTANCE OF 203.02 FEET TO A POINT; THENCE SOUTH 78°54'00" EAST A DISTANCE OF 390.28 FEET; THENCE NORTH 85°48'05" EAST A DISTANCE OF 80.31 FEET TO A POINT; THENCE NORTH 60°59'27" EAST A DISTANCE OF 125.33 FEET TO A POINT; THENCE NORTH 73°14'52" EAST A DISTANCE OF 152.00 FEET TO A POINT; THENCE NORTH 85°11'56" EAST A DISTANCE OF 196.67 FEET TO A POINT; THENCE NORTH 82°53'48" EAST A DISTANCE OF 69.02 FEET TO A POINT; THENCE NORTH 86°20'42" EAST A DISTANCE OF 540.02 FEET TO A POINT; THENCE NORTH 85°52'21" EAST A DISTANCE OF 199.19 FEET TO A POINT ON THE WEST RIGHT OF WAY LINE OF BLUE LAKE ROAD, BEING A 60 FOOT WIDE COUNTY ROAD NO. 1469, AS CONVEYED IN COUNTY ORDINANCE DATED APRIL 16, 1932 AND IN BOOK 2232, PAGE 1336, DATED 1989; THENCE NORTH 40°28'49" WEST ALONG SAID RIGHT OF WAY LINE A DISTANCE OF 24.83 FEET TO A POINT; THENCE LEAVING SAID WEST RIGHT OF WAY LINE, SOUTH 85°52'21" WEST DISTANCE OF 160.66 FEET TO A POINT; THENCE NORTH 04°25'34" WEST A DISTANCE OF 219.63 FEET TO A POINT ON THE SAID WEST RIGHT OF WAY LINE OF BLUE LAKE ROAD, SAID POINT IS ON A CIRCULAR CURVE CONCAVE SOUTHWESTERLY AND HAVING A RADIUS OF 949.93 FEET AND A CHORD BEARING OF NORTH 42°24'48" WEST AND A DISTANCE OF 32.50 FEET; THENCE ALONG THE ARC OF SAID CIRCULAR CURVE THROUGH A CENTRAL ANGLE OF 01°57'36" FOR A DISTANCE OF 32.50 FEET TO A POINT; THENCE LEAVING THE SAID WEST RIGHT OF WAY LINE, SOUTH 04°25'34" EAST A DISTANCE OF 240.69 FEET TO A POINT; THENCE SOUTH 46°54'35" WEST A DISTANCE OF 7.04 FEET TO A POINT; THENCE SOUTH 86°20'42" WEST A DISTANCE OF 538.76 FEET TO A POINT; THENCE SOUTH 82°53'48" WEST A DISTANCE

SHEET 1 OF 2

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WATER RESOURCES DEPT
SALEM, OREGON

OF 69.21 FEET TO A POINT; THENCE SOUTH 85°11'56" WEST A DISTANCE OF 198.38 FEET TO A POINT; THENCE SOUTH 73°14'52" WEST A DISTANCE OF 156.24 FEET TO A POINT; THENCE SOUTH 60°59'27" WEST A DISTANCE OF 123.08 FEET TO A POINT; THENCE SOUTH 85°48'05" WEST A DISTANCE OF 73.22 FEET TO A POINT; THENCE NORTH 78°54'00" WEST A DISTANCE OF 392.17 FEET TO A POINT; THENCE NORTH 17°20'22" EAST A DISTANCE OF 303.54 FEET TO A POINT; THENCE NORTH 35°06'11" EAST A DISTANCE OF 34.39 FEET TO A POINT; THENCE NORTH 54°53'49" WEST A DISTANCE OF 93.50 FEET TO A POINT ON THE SOUTH LINE OF A SLOPE EASEMENT CONVEYED TO MULTNOMAH COUNTY IN BOOK 281, PAGE 864 DATED JANUARY 1963; THENCE ALONG SAID SOUTH LINE, SOUTH 83°37'23" WEST A DISTANCE OF 35.37 FEET TO A POINT; THENCE LEAVING SAID SOUTH LINE, SOUTH 35°06'11" WEST A DISTANCE OF 66.57 FEET TO A POINT; THENCE SOUTH 54°53'49" EAST A DISTANCE OF 116.81 FEET TO A POINT; THENCE SOUTH 17°20'22" WEST A DISTANCE OF 267.94 FEET TO A POINT; THENCE SOUTH 27°47'44" EAST A DISTANCE OF 9.45 FEET TO A POINT; THENCE SOUTH 17°34'51" WEST A DISTANCE OF 181.94 FEET TO A POINT; THENCE NORTH 80°33'36" WEST A DISTANCE OF 436.04 FEET TO A POINT; THENCE SOUTH 60°47'15" WEST A DISTANCE OF 231.70 FEET TO A POINT; THENCE SOUTH 60°01'56" WEST A DISTANCE OF 79.87 FEET TO A POINT; THENCE NORTH 82°24'33" WEST A DISTANCE OF 88.46 FEET TO A POINT; THENCE NORTH 79°07'13" WEST A DISTANCE OF 604.84 FEET TO A POINT; THENCE NORTH 04°19'02" EAST A DISTANCE OF 22.66 FEET TO A POINT; THENCE SOUTH 79°07'11" EAST A DISTANCE OF 95.48 FEET TO A POINT; THENCE NORTH 10°52'49" EAST A DISTANCE OF 90.00 FEET TO A POINT; THENCE NORTH 79°07'11" WEST A DISTANCE OF 120.00 FEET TO A POINT; THENCE SOUTH 10°52'49" WEST A DISTANCE OF 51.81 FEET TO A POINT; THENCE SOUTH 04°19'02" WEST A DISTANCE OF 56.38 FEET TO A POINT; THENCE SOUTH 49°19'15" WEST A DISTANCE OF 5.98 FEET TO A POINT; THENCE NORTH 79°07'13" WEST A DISTANCE OF 30.45 FEET TO A POINT ON THE SAID EAST LINE OF NE. INTERLACHEN LANE; THENCE ALONG SAID EAST LINE ON A CIRCULAR CURVE CONCAVE NORTHEASTERLY HAVING A RADIUS OF 547.96 FEET AND A CHORD BEARING OF SOUTH 25°57'25" EAST AND A DISTANCE OF 24.99 FEET; THENCE ALONG THE ARC OF SAID CIRCULAR CURVE THROUGH A CENTRAL ANGLE OF 02°36'48" FOR A DISTANCE OF 24.99 FEET TO THE POINT OF BEGINNING.

CONTAINING 2.40 ACRES, MORE OR LESS.

THE COURSES OF THE AFOREMENTIONED LEGAL DESCRIPTION ARE BASED ON OREGON NORTH ZONE GRID COORDINATES. ANY ATTEMPT TO RETRACE THIS DESCRIPTION USING TERRESTRIAL SURVEY METHODS SHOULD BE PRECEDED BY USING AN APPROPRIATE GRID TO GROUND CONVERSION TO THE COURSE DISTANCES. THE COMBINED SCALE FACTOR IS: 0.99991655.

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SHEET 2 OF 2

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WATER RESOURCES DEPT
SALEM, OREGON

N.E. MARINE DRIVE

COLUMBIA SLOUGH

64-29-276 FEE 'MULTCO'

SCALE 1" = 200 FEET



FOUND 1/2" DIA. IRON PIPE SET
IN A MONUMENT CAN IN THE CENTER
LINE OF BLUE LAKE ROAD - ENG STA
543+02.42 PER MULTN CO. HWY
DEPT. SURVEY B3/1

METRO
FEE 97-052900
(PARCEL III)
T.L. 400

CO. OR. 4-22-65

TRUE POINT OF
BEGINNING

REGISTERED
PROFESSIONAL
LAND SURVEYOR

OREGON
JULY 14, 1998
PAUL R. EJJGIRD
2858

EXPIRES: 12/31/03

LIMITS OF 20 FOOT WIDE
WATERLINE EASEMENT

LIMITS OF 20 FOOT WIDE
WATERLINE EASEMENT

METRO
FEE 97-052900
(PARCEL III)
T.L. 400

EXHIBIT "J"



CITY OF PORTLAND
BUREAU OF WATER WORKS

EXHIBIT OF 20 FOOT WIDE
WATERLINE &
WELLSITE EASEMENT

DATE: 01/17/2002

PROJ. NO. 3047

DRAWN BY: PRE.

SCALE: 1" = 200 FT.

NOTE:

THE COURSES SHOWN HEREON ARE BASED ON OREGON NORTH ZONE GRID
COORDINATES. ANY ATTEMPT TO RETRACE THIS DESCRIPTION USING TERRESTRIAL
SURVEY METHODS SHOULD BE PRECEDED BY USING THE APPROPRIATE GRID TO
GROUND CONVERSION TO THE COURSE DISTANCES. COMBINED SCALE FACTOR
IS: 0.99991655.

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WATER RESOURCES DEPT.
SALEM, OREGON

EXHIBIT "K"
LEGAL DESCRIPTION
FOR
**AN EASEMENT FOR A
WATERLINE AND RELATED STRUCTURES**
(EASEMENT NO. 2)
PORTLAND WATER BUREAU
January 17, 2002

A TRACT OF LAND BEING A PORTION OF THAT TRACT OF LAND DESCRIBED IN DEED TO METRO, DATED APRIL 10, 1997 RECORDED AS FEE NO. 97-052900, MULTNOMAH COUNTY DEED RECORDS, SITUATED IN THE JOHN CROSBY DLC. AND IN THE NORTH HALF OF SECTION 21, TOWNSHIP 1 NORTH, RANGE 3 EAST, WILLAMETTE MERIDIAN, MULTNOMAH COUNTY, STATE OF OREGON, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCING AT A POINT IN THE CENTERLINE OF BLUE LAKE ROAD, COUNTY ROAD NO. 1469 BEING A 60 FOOT WIDE ROAD AS CONVEYED IN COUNTY ORDINANCE 4-16-32 AND ALSO IN BOOK 2232, PAGE 1336 MULTNOMAH COUNTY DEED RECORDS. SAID POINT IS ALSO SHOWN ON SN. 17,527 AS ENGINEERS STATION 554+20.60 BC. DATED MAY 1960; THENCE NORTH 40°28'49" WEST ALONG THE SAID CENTERLINE OF BLUE LAKE ROAD 1118.09 FEET TO AN IRON PIPE. SAID IRON PIPE IS SHOWN AS ENGINEERS STATION 543+02.42 ON SAID SN. 17,527; THENCE NORTH 49°31'11" EAST A DISTANCE OF 30.00 FEET TO THE EAST RIGHT OF WAY LINE OF SAID BLUE LAKE ROAD; THENCE ALONG THE SAID RIGHT OF WAY SOUTH 40°28'49" EAST A DISTANCE OF 301.16 FEET TO THE TRUE POINT OF BEGINNING OF THIS HEREIN DESCRIBED TRACT; THENCE LEAVING SAID BLUE LAKE ROAD RIGHT OF WAY, NORTH 85°52'23" EAST FOR A DISTANCE OF 33.71 FEET TO A POINT; THENCE SOUTH 80°17'53" EAST A DISTANCE OF 501.91 FEET TO A POINT; THENCE NORTH 65°50'50" EAST A DISTANCE OF 9.15 FEET TO A POINT; THENCE NORTH 08°42'16" EAST A DISTANCE OF 235.98 FEET TO A POINT; THENCE NORTH 10°01'55" EAST A DISTANCE OF 202.12 FEET TO A POINT; THENCE SOUTH 76°33'42" WEST A DISTANCE OF 66.97 FEET TO A POINT; THENCE NORTH 13°26'18" WEST A DISTANCE OF 90.00 FEET TO A POINT; THENCE NORTH 76°33'42" EAST A DISTANCE OF 120.00 FEET TO A POINT; THENCE SOUTH 13°26'18" EAST A DISTANCE OF 90.00 FEET TO A POINT; THENCE SOUTH 76°33'42" WEST A DISTANCE OF 31.22 FEET TO A POINT; THENCE SOUTH 10°01'55" WEST A DISTANCE OF 210.55 FEET TO A POINT; THENCE SOUTH 08°42'16" WEST A DISTANCE OF 242.35 FEET TO A POINT; THENCE SOUTH 82°10'22" EAST A DISTANCE OF 256.35 FEET TO A POINT; THENCE SOUTH 79°39'09" EAST A DISTANCE OF 184.33 FEET TO A POINT; THENCE NORTH 67°10'15" EAST A DISTANCE OF 42.12 FEET TO A POINT; THENCE NORTH 66°07'42" EAST A DISTANCE OF 606.14 FEET TO A POINT; THENCE NORTH 42°53'23" WEST A DISTANCE OF 15.60 FEET TO A POINT; THENCE NORTH 46°06'37" EAST A DISTANCE OF 120.00 FEET TO A POINT; THENCE SOUTH 43°53'23" EAST A DISTANCE OF 90.00 FEET TO A POINT; THENCE SOUTH 46°06'37" WEST A DISTANCE OF 120.00 FEET TO A POINT; THENCE NORTH 43°53'23" WEST A DISTANCE OF 53.11 FEET TO A POINT; THENCE SOUTH 66°07'42" WEST A DISTANCE OF 596.27 FEET TO A POINT; THENCE SOUTH 77°08'47" EAST A DISTANCE OF 90.96 FEET TO A POINT; THENCE SOUTH 12°51'13" WEST A DISTANCE OF 90.00 FEET TO A POINT; THENCE NORTH 77°08'47" WEST A DISTANCE OF 120.00 FEET TO A POINT; THENCE NORTH 12°51'13" EAST A DISTANCE OF 50.36

SHEET 1 OF 2

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WATER RESOURCES DEPT
SALEM, OREGON

FEET TO A POINT; THENCE NORTH 75°21'48" WEST A DISTANCE OF 29.07 FEET TO A POINT; THENCE NORTH 79°39'09" WEST A DISTANCE OF 184.84 FEET TO A POINT; THENCE NORTH 82°10'22" WEST A DISTANCE OF 255.91; THENCE NORTH 78°01'41" WEST A DISTANCE OF 28.39 FEET TO A POINT; THENCE NORTH 80°17'53" WEST A DISTANCE OF 499.49 FEET TO A POINT; THENCE SOUTH 85°52'23" WEST A DISTANCE OF 16.56 FEET TO A POINT ON THE SAID RIGHT OF WAY LINE OF SAID BLUE LAKE ROAD; THENCE ALONG THE RIGHT OF WAY NORTH 40°28'49" WEST A DISTANCE OF 24.83 FEET TO THE TRUE POINT OF BEGINNING.

CONTAINING 1.71 ACRES, MORE OR LESS.

THE COURSES OF THE AFOREMENTIONED LEGAL DESCRIPTION ARE BASED ON OREGON NORTH ZONE GRID COORDINATES. ANY ATTEMPT TO RETRACE THIS DESCRIPTION USING TERRESTRIAL SURVEY METHODS SHOULD BE PRECEDED BY USING AN APPROPRIATE GRID TO GROUND CONVERSION TO THE COURSE DISTANCES. THE COMBINED SCALE FACTOR IS: 0.99991655.

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SHEET 2 OF 2

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WATER RESOURCES DEPT
SALEM, OREGON

WATER RESOURCES DEPT
SALEM, OREGON



C-1	C-2
R=1009.93'	R=1009.93'
L=92.69'	L=29.80'
$\Delta=05^{\circ}15'31''$	$\Delta=01^{\circ}41'26''$
CB=N43°06'34"W	CB=N46°35'03"W
CD=92.66'	CD=29.80'

NOTE:

THE COURSES SHOWN HEREON ARE BASED ON OREGON NORTH ZONE GRID COORDINATES. ANY ATTEMPT TO RETRACE THIS DESCRIPTION USING TERRESTRIAL SURVEY METHODS SHOULD BE PRECEDED BY USING THE APPROPRIATE GRID TO GROUND CONVERSION TO THE COURSE DISTANCES. COMBINED SCALE FACTOR IS: 0.99991655.



CITY OF PORTLAND
BUREAU OF WATER WORKS

EXHIBIT OF 20 FOOT WIDE
WATERLINE &
WELLSITE EASEMENT

DATE: 01/17/2002

PROJ. NO. 3047

DRAWN BY: PRE.

SCALE: 1" = 200 FT.

EXHIBIT "M"
LEGAL DESCRIPTION
FOR
**AN EASEMENT FOR A
WATERLINE AND RELATED STRUCTURES**
(EASEMENT NO. 3)
PORTLAND WATER BUREAU
January 17, 2002

A TRACT OF LAND BEING A PORTION OF THAT TRACT OF LAND DESCRIBED IN DEED TO METRO, DATED APRIL 10, 1997 RECORDED AS FEE NO. 97-052900, MULTNOMAH COUNTY DEED RECORDS, SITUATED IN THE JOHN CROSBY DLC. AND IN THE NORTH HALF OF SECTION 21, TOWNSHIP 1 NORTH, RANGE 3 EAST, WILLAMETTE MERIDIAN, MULTNOMAH COUNTY, STATE OF OREGON, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCING AT A POINT IN THE CENTERLINE OF BLUE LAKE ROAD, COUNTY ROAD NO. 1469 BEING A 60 FOOT WIDE ROAD AS CONVEYED IN COUNTY ORDINANCE DATED 4-16-32 AND IN BOOK 2232, PAGE 1336 MULTNOMAH COUNTY DEED RECORDS. SAID POINT IS ALSO SHOWN ON SN. 17,527 AS ENGINEERS STATION 554+20.60 BC. DATED MAY 1960; THENCE NORTH 40°28'49" WEST ALONG THE SAID CENTERLINE OF BLUE LAKE ROAD 1118.09 FEET TO AN IRON PIPE. SAID IRON PIPE IS SHOWN AS ENGINEERS STATION 543+02.42 ON SAID SN. 17,527; THENCE NORTH 49°31'11" EAST A DISTANCE OF 30.00 FEET TO THE EAST LINE OF BLUE LAKE ROAD, SAID POINT BEING ON A CIRCULAR CURVE CONCAVE TO THE SOUTHWEST AND HAVING A RADIUS OF 1009.93 FEET AND A CHORD BEARING OF NORTH 43°06'34" WEST AND A DISTANCE OF 92.66 FEET; THENCE ALONG THE ARC OF SAID CIRCULAR CURVE THROUGH A CENTRAL ANGLE OF 05°15'31" FOR A DISTANCE OF 92.69 FEET TO THE **TRUE POINT OF BEGINNING** OF THIS HEREIN DESCRIBED TRACT; THENCE CONTINUING ALONG SAID EAST SIDELINE OF BLUE LAKE ROAD ON A CIRCULAR CURVE CONCAVE TO THE SOUTHWEST AND HAVING A RADIUS OF 1009.93 FEET AND A CHORD BEARING OF NORTH 46°35'03" WEST AND A DISTANCE OF 29.80 FEET; THENCE ALONG THE ARC OF SAID CIRCULAR CURVE THROUGH A CENTRAL ANGLE OF 01°41'26" FOR A DISTANCE OF 29.80 FEET; THENCE LEAVING SAID BLUE LAKE ROAD NORTH 04°25'34" WEST FOR A DISTANCE OF 53.14 FEET TO A POINT; THENCE NORTH 82°30'26" WEST A DISTANCE OF 49.41 FEET TO A POINT; THENCE NORTH 07°29'34" E A DISTANCE OF 90.00 FEET TO A POINT; THENCE S 82°30'26" EAST FOR A DISTANCE OF 120.00 FEET TO A POINT; THENCE SOUTH 07°29'34" WEST FOR A DISTANCE OF 90.00 FEET TO A POINT; THENCE NORTH 82°30'26" WEST FOR A DISTANCE OF 50.15 FEET TO A POINT; THENCE SOUTH 04°25'34" EAST FOR A DISTANCE OF 71.01 FEET TO THE TRUE POINT OF BEGINNING.

CONTAINING 12,039 SQUARE FEET, MORE OR LESS.

THE COURSES OF THE AFOREMENTIONED LEGAL DESCRIPTION ARE BASED ON OREGON NORTH ZONE GRID COORDINATES. ANY ATTEMPT TO RETRACE THIS DESCRIPTION USING TERRESTRIAL SURVEY METHODS SHOULD BE PRECEDED BY USING AN APPROPRIATE GRID TO GROUND CONVERSION TO THE COURSE DISTANCES. THE COMBINED SCALE FACTOR IS: 0.99991655.

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MAY 02 2012

WATER RESOURCES DEPT
SALEM, OREGON

JUN 15 1982

DUPLICATE

20102

RECEIVED

EXHIBIT N

MAY 02 2012

INTERGOVERNMENTAL AGREEMENT

WATER RESOURCES DEPT
SALEM, OREGON

THIS AGREEMENT is made and entered into by and between the CITY OF PORTLAND, a municipal corporation of the State of Oregon, hereinafter referred to as "City" and MULTNOMAH COUNTY, a home rule subdivision of the State of Oregon, hereinafter referred to as "County".

WITNESSETH:

WHEREAS, in connection with the City's Bureau of Water Works Ground Water Development Program, City desires to drill five test wells, drill three production wells with necessary appurtenances and construct a water pipeline, all to be located in Blue Lake Park, which is property owned by County; and

WHEREAS, in connection with the above-described water facilities development by City, City requires the consent of the County to enter upon Blue Lake Park property for the purpose of inspecting, surveying, constructing, operating, and maintaining facilities; and

WHEREFORE, County desires to permit such access subject to the following terms and conditions:

NOW, THEREFORE, IT IS AGREED between the City and County:

1. County grants to City permission to enter upon the County property known as Blue Lake Park located in Sections 20 and 21, T1N, R3E, W.M., Tax Lots 11, 13, 26, 37 and 40, Multnomah County, Oregon, for the purpose of surveying, inspecting, constructing, operating, and maintaining certain ground water development facilities described as five test wells, three production wells and a water pipeline serving those wells, all as depicted on an aerial photograph marked Exhibit A, attached hereto and by this reference made a part hereof.

2. The location of the water pipeline will be as mutually agreed upon by the City and County and shall be located in one of three possible routes across County's property as identified in Exhibit A. The final route chosen shall be subject to approval of an archeologist to be selected by the City. The approval of the archeologist shall be given following his or her investigation to ensure that no Indian burial sites will be disturbed. The City agrees to hold the County harmless and indemnify County from any and all claims that may arise in connection with the construction and operation of the water facilities on or near Indian burial sites.

3. At such time as County and City may mutually agree upon the location of the water pipeline, County agrees to convey to City permanent easements to the real property upon which is situated the above described water facilities and reasonable access thereto across County-owned property. All easements will be subject to the following terms and conditions:

- A. No surface or underground structure, permanent or temporary, shall be constructed upon the easement without the written consent of the Chief Engineer of the City's Bureau of Water Works, which consent shall not be unreasonably withheld.
- B. No grade change in excess of one (1) foot in elevation shall be allowed without the written consent of the Chief Engineer of the City's Bureau of Water Works, which consent shall not be unreasonably withheld.
- C. No trees shall be planted in the easement, without the written consent of the Chief Engineer of the City's Bureau of Water Works, which consent shall not be unreasonably withheld.
- D. No materials storage shall be permitted upon the easement without the written consent of the Chief Engineer of the City's Bureau of Water Works, which consent shall not be unreasonably withheld.
- E. Grantor may place fences upon and across the easement; however, such fences shall have gates or removable panels so as to allow a minimum opening of nine (9) feet in width to permit equipment access for the purpose of maintaining and repairing the waterline.
- F. The grantors retain the right to use the easement for all agricultural purposes, excepting the cultivation of trees.
- G. The City will restore as nearly as practicable, the surface of the easement within a reasonable time after completion of construction or maintenance work.
- H. The width of the easement shall be 40 feet with 10 feet to the northerly side of the waterline and 30 feet to the southerly side.
- I. When the City is generating electricity at the Groundwater Pump Station and determines that surplus water is available, upon request by the County, the City agrees to furnish water to Blue Lake. The City makes no guarantee as to the quality or quantity of the water furnished and the County agrees to obtain all necessary permits and licenses required to discharge the water to Blue Lake.
- J. The City will construct an outlet structure to Blue Lake from the pipeline similar to the structure shown on the drawing marked Exhibit "B". The design of the outlet structure shall be subject to the approval of the County Engineer and shall conform to all state and local health regulations.
- K. The City will furnish and install 12-inch perforated concrete drain pipe in any existing irrigation ditch and backfill the ditch to match the existing grade of the surrounding area where the waterline is installed in the ditch.
- L. The City will furnish and install a 12-inch perforated concrete drain pipe in the irrigation ditch to the north of the proposed waterline as shown in Exhibit "A", and backfill the ditch to match the existing grade of the surrounding area.

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MAY 02 2012

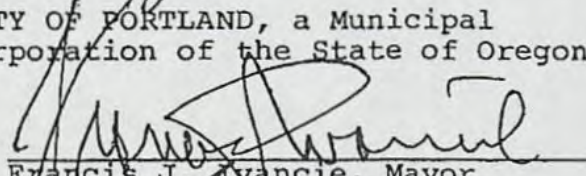
**WATER RESOURCES DEPT
SALEM, OREGON**

4. The City agrees to hold County harmless from and indemnify County from any claim, liability or damage associated with the construction, installation, use and maintenance of the water facilities constructed by the City.

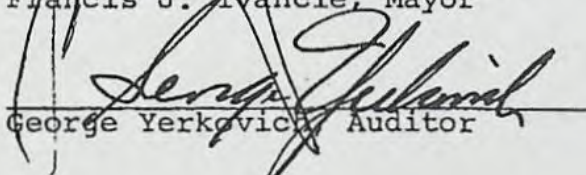
DATED this 15 day of June, 198 2.

CITY OF PORTLAND, a Municipal
Corporation of the State of Oregon

By

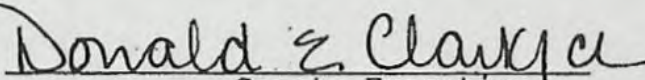

Francis J. Ivancie, Mayor

By

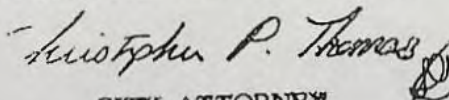

George Yerkovich, Auditor

MULTNOMAH COUNTY, a Home Rule
Subdivision of the State of Oregon

By


County Executive

APPROVED AS TO FORM

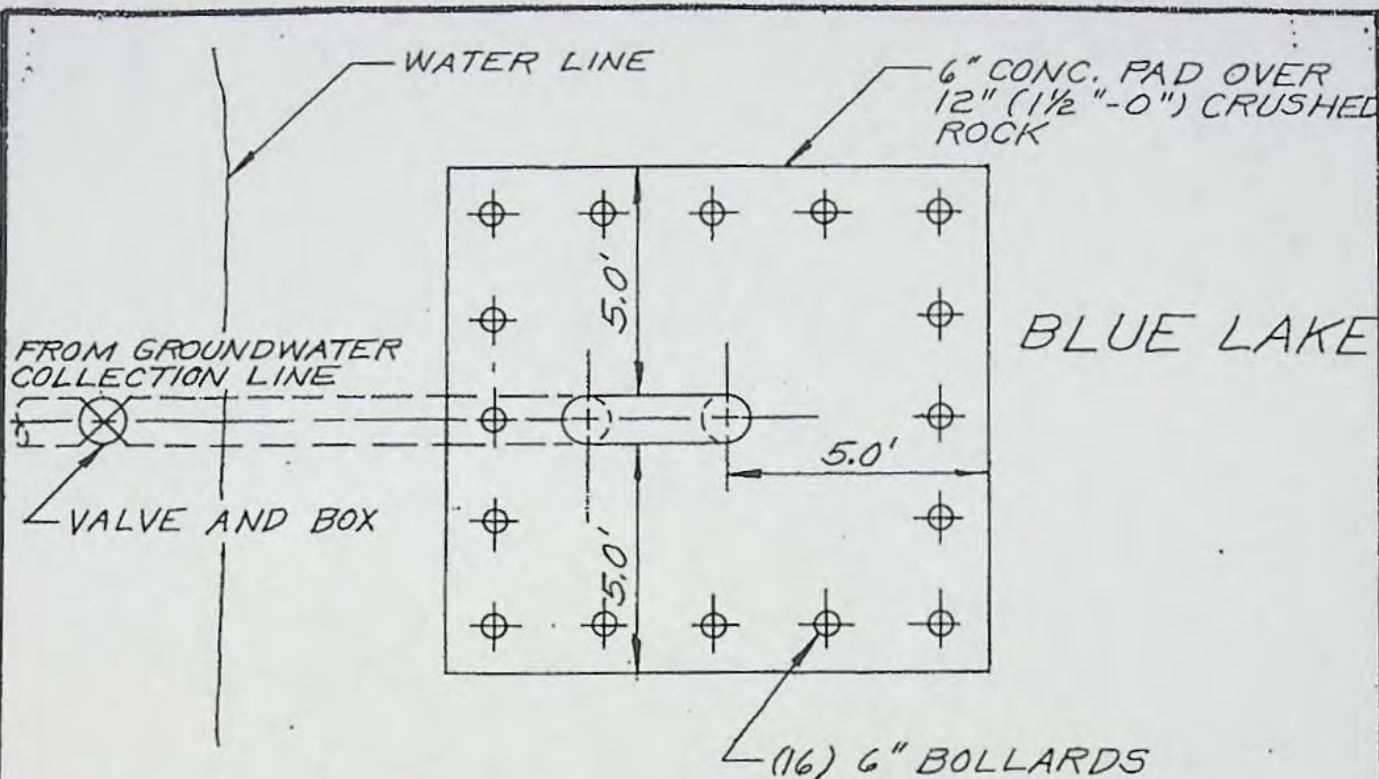

CITY ATTORNEY

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MAY 02 2012

WATER RESOURCES DEPT
SALEM, OREGON

EXHIBIT D



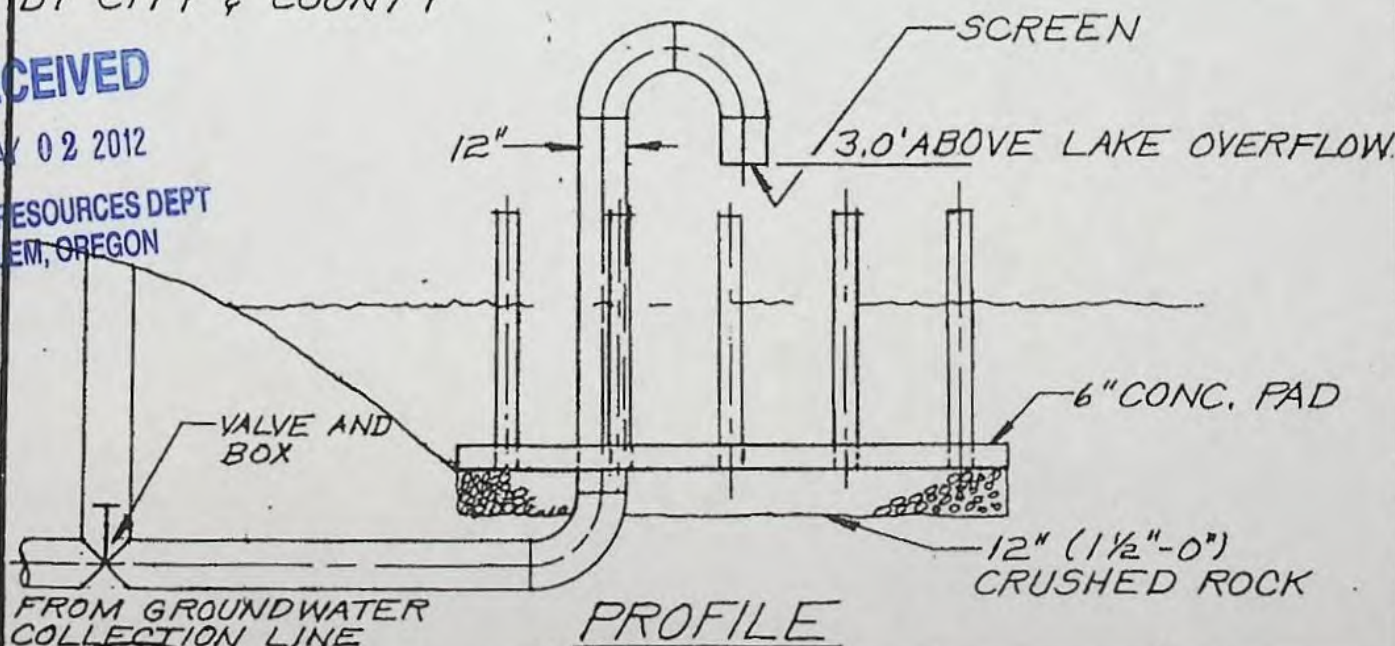
DESIGN MAY BE MODIFIED AS AGREED BY CITY & COUNTY

PLAN

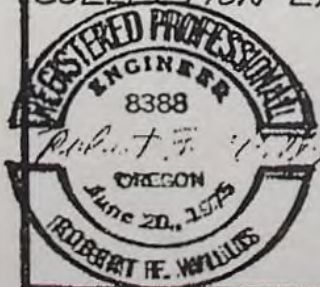
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MAY 02 2012

WATER RESOURCES DEPT
SALEM, OREGON



PROFILE



CITY OF PORTLAND		DATE FEB, '82	1/4 SEC
BUREAU OF WATER WORKS		SCALE NONE	ACTIVITY NO'S
1800 SW. 6TH AVE. PORTLAND, OREGON 97201		DESIGNED M.L.	
BLUE LAKE DISCHARGE STRUCTURE		DRAWN J.J.O.	
APPROVED <i>E. J. Waples</i>		CHECKED	
CHIEF ENGINEER - REG PROF ENG NO 4137		SUB	

ORDINANCE NO. 153048

GL
Production Well

Ph. III

Ordinance #15304

4-7-82

An Ordinance authorizing an Intergovernmental Agreement with Multnomah County permitting the City access to Blue Lake Park for the purpose of surveying, inspecting, constructing, operating and maintaining certain water facilities in Blue Lake Park for the Groundwater Development Program and declaring an emergency.

The City of Portland ordains:

Section 1: The Council finds:

1. The Water Bureau needs to construct three production wells, five test wells, and a water pipeline serving those wells within Multnomah County owned Blue Lake Park for the City's Groundwater Development Program.
2. The Water Bureau has located three pipeline route alternatives that are acceptable to Multnomah County. The route selected will be determined after an archeologist contracted by the City investigates the routes to ensure that no Indian burial sites will be disturbed.
3. That Multnomah County will convey permanent easements for the mentioned water facilities, and reasonable access to the facilities across County owned land when the County and the City mutually agree upon the location of the water pipeline as described in the Intergovernmental Agreement, attached to the original only hereof, marked Supplement No. 1, and by this reference made a part hereof.

NOW, THEREFORE, the Council directs:

- a. The Mayor and the Auditor are hereby authorized to execute an Intergovernmental Agreement, marked Supplement No. 1, with Multnomah County for the purpose of surveying, inspecting, constructing, operating and maintaining certain water facilities in Blue Lake Park for the City's Groundwater Development Program. The executed agreement shall be returned to Denise Francis, 620 S.W. 5th, Room 408, Portland, Oregon 97201, Multnomah County's Counsel, for execution by Multnomah County.

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MAY 02 2012

WATER RESOURCES DEPT
SALEM, OREGON

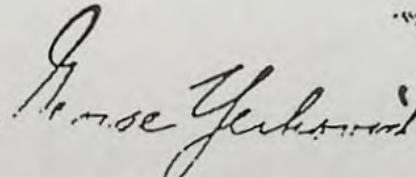
ORDINANCE No.

Section 2. The Council declares that an emergency exists because any delay in executing this agreement will unnecessarily delay the construction of the mentioned water facilities for the Groundwater Development Program, therefore, this Ordinance shall be in force and effect from and after its passage by Council.

Passed by the Council, APR - 7 1982

Mayor Ivancie
March 25, 1982
M. Lucas:nk

Attest:



Auditor of the City of Portland

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MAY 02 2012

**WATER RESOURCES DEPT
SALEM, OREGON**

AUG 10 1983

EXHIBIT O
AMENDMENT NO. 1
TO
INTERGOVERNMENTAL AGREEMENT

(CONTRACT NO. 20102)

THIS AMENDMENT NO. 1 is made and entered into by and between the CITY OF PORTLAND, a municipal corporation of the State of Oregon, hereinafter referred to as "City" and MULTNOMAH COUNTY, a home rule subdivision of the State of Oregon, hereinafter referred to as "County".

WITNESSETH:

WHEREAS, in connection with the Intergovernmental Agreement (Contract No. 20102) between City and County, City desires to add additional wells, pipelines, and access roads; increase pipeline sizes, and make pipeline alignment changes in Blue Lake Park for the City Groundwater Development Program, all as described in Exhibit A (Revised), which the City desires to have supersede Exhibit A of said agreement; and

WHEREAS, City requires consent of County to make said additions and changes and to have said Exhibit A (Revised) supersede Exhibit A of said agreement; and

WHEREFORE, County desires to permit said additions and changes, to permit Exhibit A (Revised) to supersede Exhibit A of said agreement; and

WHEREFORE, County desires to make some revisions and clarifications in the terms and conditions of the easements to be granted by the County for these facilities as part of said agreement; and

WHEREFORE, City desires to permit said revisions and clarifications;

NOW THEREFORE, IT IS AGREED between the City and County to make the following additions and changes to said agreement:

1. County grants the City permission to add the additional wells, pipelines, and access roads; increase the pipeline sizes, and make the pipeline alignment changes, all as described in Exhibit A (Revised), attached hereto, which by this reference supersedes Exhibit A and becomes a part hereof. Therefore, Paragraph 1 is hereby revised to have facilities described as eight test wells rather than five, six production wells rather than three and to refer to Exhibit A (Revised) rather than Exhibit A.
2. In Paragraph 2, substitute "Exhibit A (Revised)" for "Exhibit A".

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MAY 02 2012

WATER RESOURCES DEPT
SALEM, OREGON

3. Add a second sentence to Paragraph 3A as follows:

City may construct only such structures within the easement as are required for the water facilities.

4. Add a second sentence to Paragraph 3D as follows:

No public health hazard or hazardous materials as defined by Chapter 333 of the Oregon Administrative Rules of the Oregon State Health Division may be stored within 100 feet of any water production or test well.

5. The term "Grantor" used in Paragraph 3E is hereby defined as the County. Add a second sentence to Paragraph 3E of said agreement as follows:

City shall not place fences upon and across any easement without written consent of County, said consent not to be unreasonably withheld.

6. Delete Paragraph 3F and substitute the following:

County retains the right to use any pipeline easement and that portion of any access roadway easement outside of the roadway surface for roadways, recreational activities, landscaping or agricultural purposes other than the cultivation of trees. County retains the right to construct utility lines, including sprinkler system lines, across any pipeline or access roadway easements on conditions that said construction does not interfere with the water facilities and that the Oregon State Health Standards are met.

7. In Paragraph 3G, delete the words, "as nearly as practicable", and substitute the words, "to a condition of equal or better".

8. Delete Paragraph 3H and substitute the following:

The width of the permanent water line easements shall be twenty (20) feet. By this agreement, the County grants a temporary working easement of an additional fifteen (15) feet on each side of the permanent easements for the initial construction work and temporary working easements as required for future maintenance work. The County agrees to maintain the surface of the permanent and the temporary water line easements after County acceptance of the City restoration work.

The width of the permanent access road easements shall be thirty (30) feet with fifteen (15) feet on each side of the roadway centerline. County agrees to maintain the surface of these easements lying

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WATER RESOURCES DEPT
SALEM, OREGON

outside of the road surface and the City agrees to maintain the road surface. City agrees to keep the roadway surface properly oiled with an asphalt binder if the surface is rock or to maintain an asphaltic concrete surface at the City's option.

The permanent well site easements shall be 90 feet by 120-feet in area and this area shall be oriented as determined by the City to encompass the well site facilities including the fill slopes. By this agreement, County grants a temporary easement for an additional fifteen (15) feet around the perimeter of said permanent easements for the initial construction work and temporary working easements as required for future maintenance work. County agrees that within 100 feet of any water production or test well, the construction of any surface or underground structures, permanent or temporary, or the storage of any materials shall be subject to the approval of the Oregon State Health Division and shall conform to all State and local health regulations. County agrees to maintain any grass surfacing within the well site easements.

City agrees that electrical services to the well sites will be underground and that these underground facilities will be constructed in the road access or pipeline easements.

9. Delete Paragraph 3I and substitute the following three paragraphs:

Upon request by the County, the City agrees to furnish a minimum of three (3) million cubic feet of surplus water each year to Blue Lake from the City's wells in Blue Lake Park and the County agrees to reimburse the City for the direct cost of operating wells for this purpose. Surplus water is defined for this agreement as water not necessary to meet the water supply demands of the water system.

When the City is generating electricity at the Groundwater Pump Station and determines that surplus water is available, upon request by the County, the City agrees to furnish water to Blue Lake at no cost to the County.

The City makes no guarantee as to the quality of the water furnished to Blue Lake or to the quantity of surplus Bull Run River water and the County agrees to obtain all necessary permits and licenses required to discharge the water to Blue Lake.

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MAY 02 2012

WATER RESOURCES DEPT
SALEM, OREGON

10. Delete the first sentence of Paragraph 3J and all of Exhibit B and substitute the following:

The City will construct for the purpose of filling Blue Lake from the City's wells a water supply outlet on the northerly shoreline of Blue Lake consisting of a precast concrete vault with an engineered fill sloped to that portion of the vault extending above existing ground, and rip rap on a filter blanket to be placed on the lake bottom. This outlet will be supplied from a 24-inch water line off the 42-inch collection main as shown in Exhibit A (Revised). The City will maintain all of this facility except for the ground surface, the rip rap and the filter blanket.

11. Delete Paragraph 3K and 3L and substitute the following:

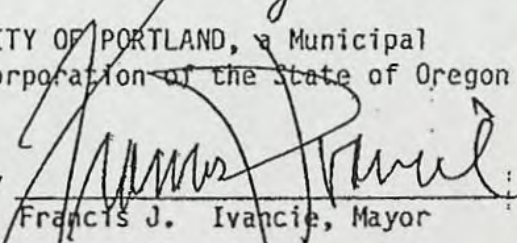
The City will furnish and install a 12-inch, Class III ASTM C14, extra strength, non-reinforced concrete storm drain with rubber gaskets near the existing northerly/southerly drainage ditch and backfill both this ditch and the existing easterly/westerly drainage ditch to match the existing grades of the surrounding area, all as shown on Exhibit A (Revised).

12. All other terms and conditions of said agreement not amended herein will remain in effect.

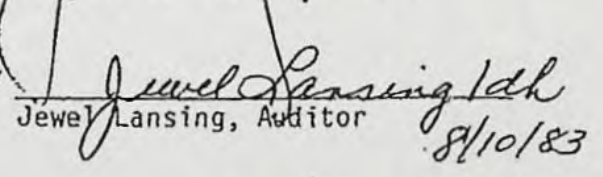
DATED this 10 day of August, 1983.

CITY OF PORTLAND, a Municipal
Corporation of the State of Oregon

By


Francis J. Ivancie, Mayor

By


Jewel Lansing, Auditor

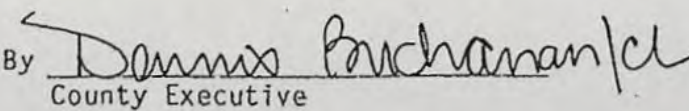
8/10/83

APPROVED AS TO FORM


CITY ATTORNEY

MULTNOMAH, a Home Rule Subdivision of the State
of Oregon

By


County Executive

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MAY 02 2012

WATER RESOURCES DEPT
SALEM, OREGON

JUL 18 1984
EXHIBIT P

SUPPLEMENT "1"

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MAY 02 2012

WATER RESOURCES DEPT
SALEM, OREGON

AMENDMENT NO. 2
TO
INTERGOVERNMENTAL AGREEMENT
(CONTRACT NO. 20102)

THIS AMENDMENT NO. 2 is made and entered into by and between the CITY OF PORTLAND, a municipal corporation of the State of Oregon, hereinafter referred to as "City" and MULTNOMAH COUNTY, a home rule subdivision of the State of Oregon, hereinafter referred to as "County".

WITNESSETH:

WHEREAS, City desires to provide an emergency water supply to the residents of the Interlachen, Inc., West Interlachen Water Co-Op, and Blue Lake Water Co-Op, in the event that the operation of City's wells adversely impacts the operation of existing wells serving said residents; and

WHEREAS, in connection with the Intergovernmental Agreement (Contract No. 20102) between City and County, City requires additional conditional pipeline easement in Blue Lake Park to provide said emergency water supply as described in Exhibit A (Revision 2), which the City desires to have supersede Exhibit A (Revised) of said agreement; and

WHEREAS, City requires consent of County to make said addition and to have said Exhibit A (Revision 2) supersede Exhibit A (Revised) of said agreement; and

WHEREAS, the County has signed Contract No. 20102 with the City of Portland, expressing its desire that the City be permitted to develop certain wells, pipelines, access roads, and necessary related structures in Blue Lake Park; and

WHEREAS, the County may, at some time in the future, desire to develop the undeveloped area currently proposed and agreed to as the site for Well No. 12, 13, 14, 17, 18 and 19; and

WHEREAS, County development of this area may require the relocation of the well(s), pipelines, necessary structures and access roads which relocation will be costly;

NOW THEREFORE, IT IS AGREED between the City and County to make the following additions and changes to said agreement:

1. County grants the City permission to add the additional pipeline as described in Exhibit A (Revision 2), attached hereto, which by this reference supersedes Exhibit A (Revised) and becomes a part hereof. Therefore, Paragraph 1 is hereby revised to refer to Exhibit A (Revision 2) rather than Exhibit A (Revised).
2. Upon request by the County, the City at no cost to the County agrees to relocate the pipeline providing emergency water supply to residents of the Interlachen, Inc., West Interlachen Water Co-Op and Blue Lake Water Co-Op, on condition that all of the following stipulations are satisfied:
 - a. County grants to City an additional conditional pipeline easement in Blue Lake Park to construct the said pipeline, if deemed necessary, at a location mutually agreed upon between the City and County.

Reviewed ?

- b. County agrees to notify the City of its desired pipeline relocation date far enough in advance to allow City a reasonable amount of time to plan, prepare engineering drawings and specifications and construct the new pipeline.
3. Upon request by the County, the City will agree to relocate any of said Well Site(s) and its (their) associated pipelines and structures which are shown on Exhibit A (Revision 2) to another location within Blue Lake Park, on condition that all of the following stipulations are satisfied:
- a. County bears all the costs associated with the relocation of Replacement Well Site(s), such as, but not limited to abandoning the existing facility, performing necessary geological exploration to locate suitable location(s) for replacement well(s) in Blue Lake Aquifer, constructing a new production and test well comparable in capacity and performance to the existing well(s) as determined by the City (County is required to pay for the cost of no more than one production and one test well for each replacement well), construction of the well site(s), and installation of required connecting pipeline(s) to the existing collection main.
 - b. County is able and does grant the City additional easements in Blue Lake Park for reconstruction of Replacement Well Site(s) under the same terms and conditions outlined in Amendment No. 1 to Intergovernmental Agreement (Contract No. 20102). The replacement well site(s) shall be constructed at the location(s) most suitable for its intended use as mutually agreed upon between the City and County.
 - c. City is able to secure a permit from the Oregon State Water Resources Department and the Oregon State Health Division for construction of production well(s) at the proposed new location(s) in Blue Lake Park and secure a transfer by the Oregon State Water Resources Department of the Water Right Permits complete with their existing date of priority from the existing well(s) to the replacement well(s).
 - d. County shall notify the City of its desired date of abandonment of Well Site(s) by City at least two years in advance.
3. All other terms and conditions of said agreement not amended herein will remain in effect.

DATED this ____ day of JUL 18 1984, 1983

CITY OF PORTLAND, a Municipal Corporation of the
State of Oregon

By _____
Francis J. Ivancie, Mayor

By _____
Jewel Lansing, Auditor

MULTNOMAH, a Home Rule Subdivision of the State of
Oregon

By _____
County Executive

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MAY 02 2012

**WATER RESOURCES DEPT
SALEM, OREGON**

EXHIBIT Q

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153048

Supplement 1

MAY 02 2012

INTERGOVERNMENTAL AGREEMENT

WATER RESOURCES DEPT
SALEM, OREGON

THIS AGREEMENT is made and entered into by and between the CITY OF PORTLAND, a municipal corporation of the State of Oregon, hereinafter referred to as "City" and MULTNOMAH COUNTY, a home rule subdivision of the State of Oregon, hereinafter referred to as "County".

WITNESSETH:

WHEREAS, in connection with the City's Bureau of Water Works Ground Water Development Program, City desires to drill five test wells, drill three production wells with necessary appurtenances and construct a water pipeline, all to be located in Blue Lake Park, which is property owned by County; and

WHEREAS, in connection with the above-described water facilities development by City, City requires the consent of the County to enter upon Blue Lake Park property for the purpose of inspecting, surveying, constructing, operating, and maintaining facilities; and

WHEREFORE, County desires to permit such access subject to the following terms and conditions:

NOW, THEREFORE, IT IS AGREED between the City and County:

1. County grants to City permission to enter upon the County property known as Blue Lake Park located in Sections 20 and 21, T1N, R3E, W.M., Tax Lots 11, 13, 26, 37 and 40, Multnomah County, Oregon, for the purpose of surveying, inspecting, constructing, operating, and maintaining certain ground water development facilities described as five test wells, three production wells and a water pipeline serving those wells, all as depicted on an aerial photograph marked Exhibit A, attached hereto and by this reference made a part hereof.

2. The location of the water pipeline will be as mutually agreed upon by the City and County and shall be located in one of three possible routes across County's property as identified in Exhibit A. The final route chosen shall be subject to approval of an archeologist to be selected by the City. The approval of the archeologist shall be given following his or her investigation to ensure that no Indian burial sites will be disturbed. The City agrees to hold the County harmless and indemnify County from any and all claims that may arise in connection with the construction and operation of the water facilities on or near Indian burial sites.

3. At such time as County and City may mutually agree upon the location of the water pipeline, County agrees to convey to City permanent easements to the real property upon which is situated the above described water facilities and reasonable access thereto across County-owned property. All easements will be subject to the following terms and conditions:

- A. No surface or underground structure, permanent or temporary, shall be constructed upon the easement without the written consent of the Chief Engineer of the City's Bureau of Water Works, which consent shall not be unreasonably withheld.
- B. No grade change in excess of one (1) foot in elevation shall be allowed without the written consent of the Chief Engineer of the City's Bureau of Water Works, which consent shall not be unreasonably withheld.
- C. No trees shall be planted in the easement, without the written consent of the Chief Engineer of the City's Bureau of Water Works, which consent shall not be unreasonably withheld.
- D. No materials storage shall be permitted upon the easement without the written consent of the Chief Engineer of the City's Bureau of Water Works, which consent shall not be unreasonably withheld.
- E. Grantor may place fences upon and across the easement; however, such fences shall have gates or removable panels so as to allow a minimum opening of nine (9) feet in width to permit equipment access for the purpose of maintaining and repairing the waterline.
- F. The grantors retain the right to use the easement for all agricultural purposes, excepting the cultivation of trees.
- G. The City will restore as nearly as practicable, the surface of the easement within a reasonable time after completion of construction or maintenance work.
- H. The width of the easement shall be 40 feet with 10 feet to the northerly side of the waterline and 30 feet to the southerly side.
- I. When the City is generating electricity at the Groundwater Pump Station and determines that surplus water is available, upon request by the County, the City agrees to furnish water to Blue Lake. The City makes no guarantee as to the quality or quantity of the water furnished and the County agrees to obtain all necessary permits and licenses required to discharge the water to Blue Lake.
- J. The City will construct an outlet structure to Blue Lake from the pipeline similar to the structure shown on the drawing marked Exhibit "B". The design of the outlet structure shall be subject to the approval of the County Engineer and shall conform to all state and local health regulations.
- K. The City will furnish and install 12-inch perforated concrete drain pipe in any existing irrigation ditch and backfill the ditch to match the existing grade of the surrounding area where the waterline is installed in the ditch.
- L. The City will furnish and install a 12-inch perforated concrete drain pipe in the irrigation ditch to the north of the proposed waterline as shown in Exhibit "A", and backfill the ditch to match the existing grade of the surrounding area.

4. The City agrees to hold County harmless from and indemnify County from any claim, liability or damage associated with the construction, installation, use and maintenance of the water facilities constructed by the City.

DATED this _____ day of _____, 198 _____.

CITY OF PORTLAND, a Municipal
Corporation of the State of Oregon

By _____
Francis J. Ivancie, Mayor

By _____
George Yerkovich, Auditor

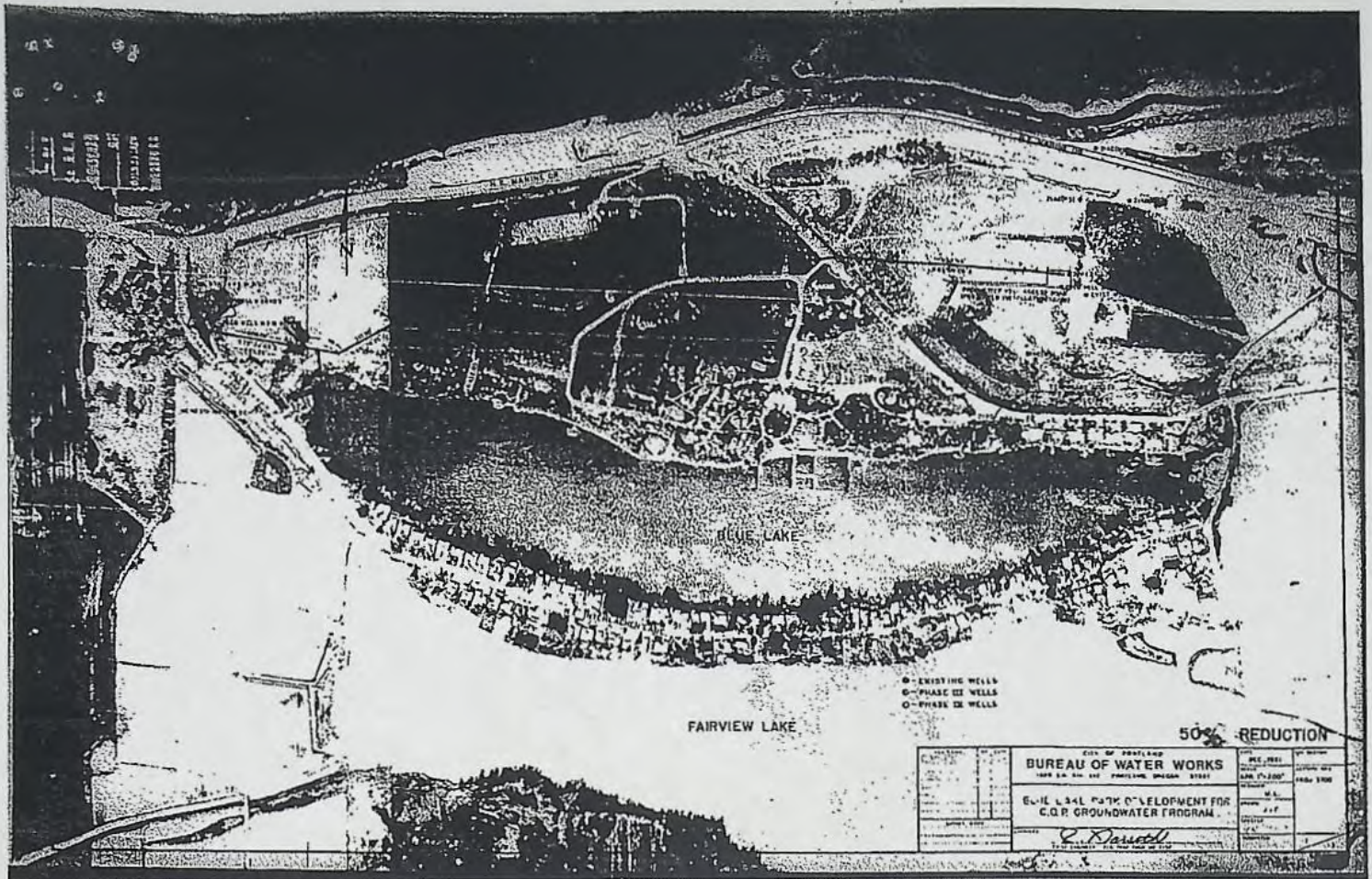
MULTNOMAH COUNTY, a Home Rule
Subdivision of the State of Oregon

By _____
County Executive

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MAY 02 2012

WATER RESOURCES DEPT
SALEM, OREGON

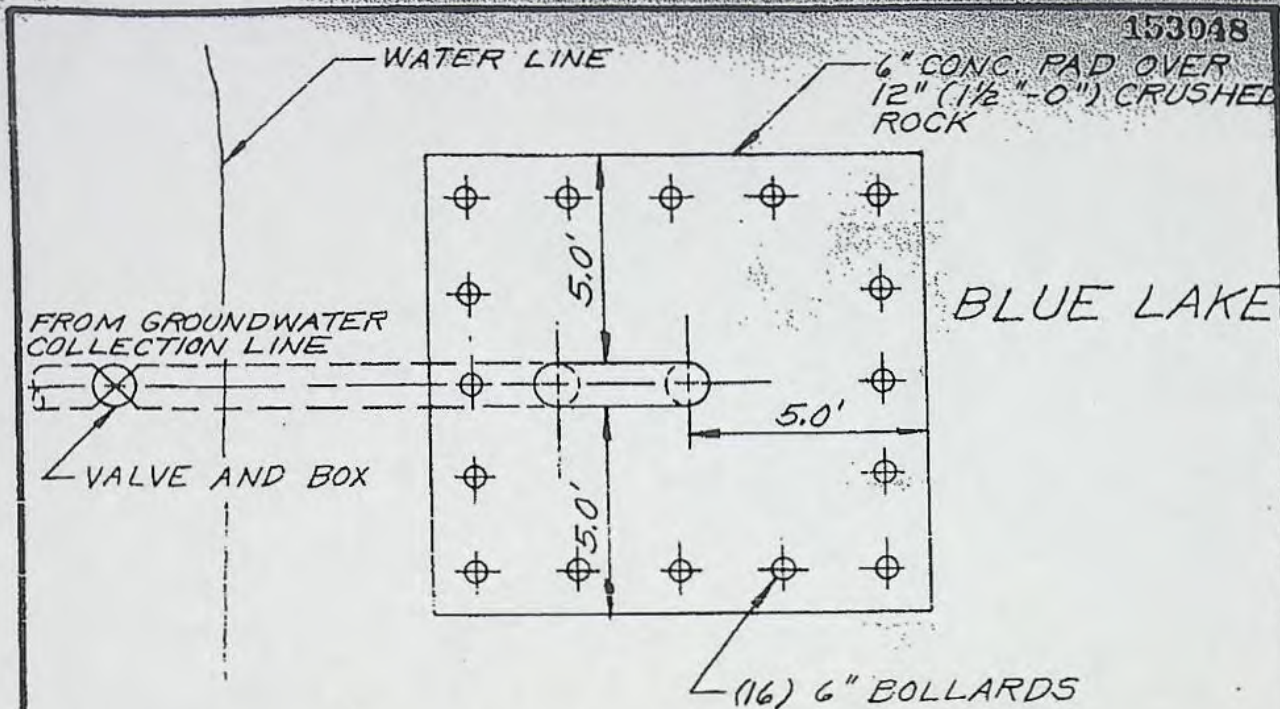


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MAY 02 2012

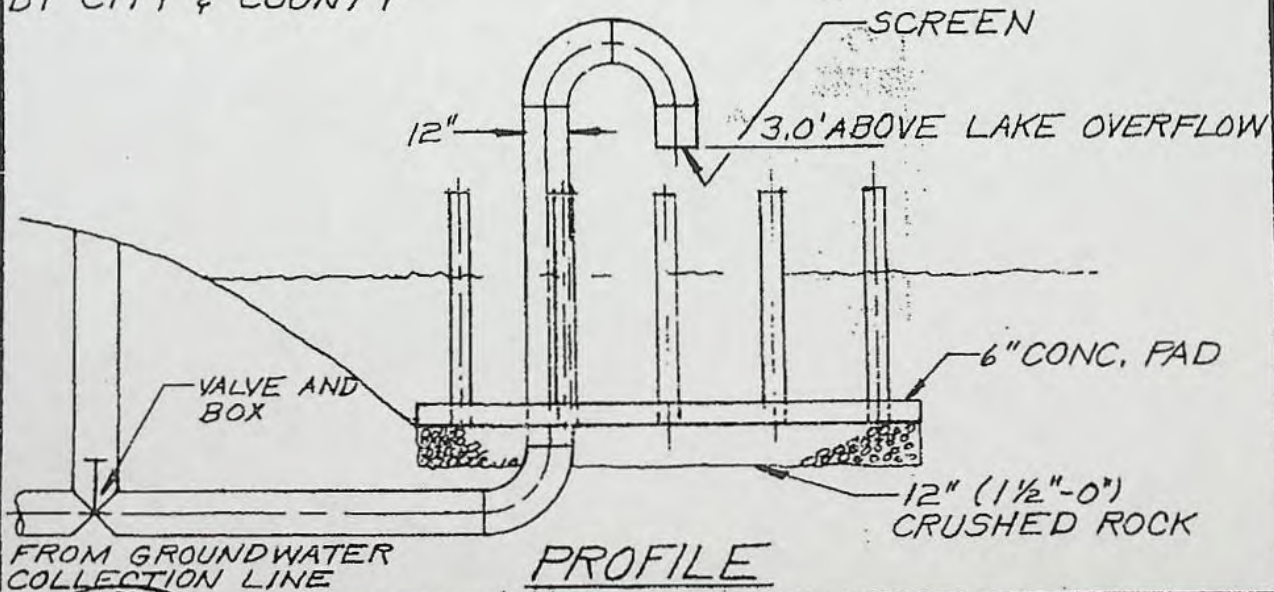
WATER RESOURCES DEPT
SALEM, OREGON

EXHIBIT "B"

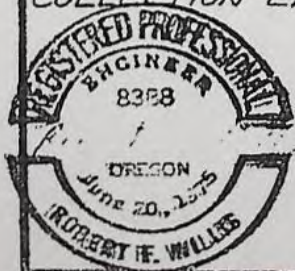


DESIGN MAY BE
MODIFIED AS AGREED
BY CITY & COUNTY

PLAN



PROFILE



CITY OF PORTLAND	
BUREAU OF WATER WORKS	
1800 SW 6TH AVE PORTLAND OREGON 97201	
BLUE LAKE DISCHARGE STRUCTURE	
APPROVED	<i>R. E. Willes</i> CHIEF ENGINEER - REG. PROF. ENG. NO. 8137

DATE	FEB, '82	1/8 SEC
SCALE	NONE	ACTIVITY NO'S
DESIGNED	M.L.	
DRAWN	J.J.O.	
CHECKED		
DWG		

RECEIVED

MAY 02 2012

WATER RESOURCES DEPT
SALEM, OREGON

ORDINANCE NO. 153048

An Ordinance authorizing an Intergovernmental Agreement with Multnomah County permitting the City access to Blue Lake Park for the purpose of surveying, inspecting, constructing, operating and maintaining certain water facilities in Blue Lake Park for the Groundwater Development Program and declaring an emergency.

The City of Portland ordains:

Section 1: The Council finds:

1. The Water Bureau needs to construct three production wells, five test wells, and a water pipeline serving those wells within Multnomah County owned Blue Lake Park for the City's Groundwater Development Program.
2. The Water Bureau has located three pipeline route alternatives that are acceptable to Multnomah County. The route selected will be determined after an archeologist contracted by the City investigates the routes to ensure that no Indian burial sites will be disturbed.
3. That Multnomah County will convey permanent easements for the mentioned water facilities, and reasonable access to the facilities across County owned land when the County and the City mutually agree upon the location of the water pipeline as described in the Intergovernmental Agreement, attached to the original only hereof, marked Supplement No. 1, and by this reference made a part hereof.

NOW, THEREFORE, the Council directs:

- a. The Mayor and the Auditor are hereby authorized to execute an Intergovernmental Agreement, marked Supplement No. 1, with Multnomah County for the purpose of surveying, inspecting, constructing, operating and maintaining certain water facilities in Blue Lake Park for the City's Groundwater Development Program. The executed agreement shall be returned to Denise Francis, 620 S.W. 5th, Room 408, Portland, Oregon 97201, Multnomah County's Counsel, for execution by Multnomah County.

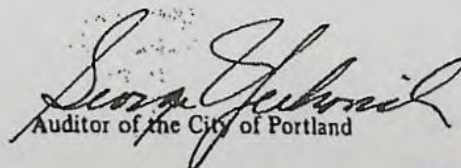
ORDINANCE No.

Section 2. The Council declares that an emergency exists because any delay in executing this agreement will unnecessarily delay the construction of the mentioned water facilities for the Groundwater Development Program, therefore, this Ordinance shall be in force and effect from and after its passage by Council.

Passed by the Council, APR 7 1982

Mayor Ivancie
March 25, 1982
M. Lucas:nk

Attest:


Auditor of the City of Portland

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MAY 02 2012

WATER RESOURCES DEPT
SALEM, OREGON

THE COMMISSIONERS VOTED AS FOLLOWS:		
	Yeas	Nays
JORDAN	/	
LINDBERG	/	
SCHWAB	/	
STRACHAN	/	
IVANCIE	/	

FOUR-FIFTHS CALENDAR	
JORDAN	
LINDBERG	
SCHWAB	
STRACHAN	
IVANCIE	

Calendar No. 872
ORDINANCE No. 153048

Title

An Ordinance authorizing an Inter-governmental Agreement with Multnomah County permitting the City access to Blue Lake Park for the purpose of surveying, inspecting, constructing, operating and maintaining certain water facilities in Blue Lake Park for the Groundwater Development Program and declaring an emergency.

Filed APR 2 1982

GEORGE YERKOVICH
Auditor of the CITY OF PORTLAND

By

Deputy

INTRODUCED BY
MAYOR IVANCIE
NOTED BY THE COMMISSIONER
Affairs
Finance and Administration <i>FJT</i>
Safety
Utilities
Works

BUREAU APPROVAL
Bureau: Water Works
Prepared By: M. Lucas:nk
Date: March 25, 1982
Budget Impact Review:
<input checked="" type="checkbox"/> Completed <input type="checkbox"/> Not required
Bureau Head: <i>Carl Goebel</i>
Carl Goebel, Administrator

CALENDAR
Consent <input checked="" type="checkbox"/> Regular

NOTED BY
City Attorney
City Auditor
City Engineer

RECEIVED

MAY 02 2012

WATER RESOURCES DEPT
SALEM, OREGON

EXHIBIT R

154500

AMENDMENT NO. 1
TO
INTERGOVERNMENTAL AGREEMENT

(CONTRACT NO. 20102)

THIS AMENDMENT NO. 1 is made and entered into by and between the CITY OF PORTLAND, a municipal corporation of the State of Oregon, hereinafter referred to as "City" and MULTNOMAH COUNTY, a home rule subdivision of the State of Oregon, hereinafter referred to as "County".

WITNESSETH:

WHEREAS, in connection with the Intergovernmental Agreement (Contract No. 20102) between City and County, City desires to add additional wells, pipelines, and access roads; increase pipeline sizes, and make pipeline alignment changes in Blue Lake Park for the City Groundwater Development Program, all as described in Exhibit A (Revised), which the City desires to have supersede Exhibit A of said agreement; and

WHEREAS, City requires consent of County to make said additions and changes and to have said Exhibit A (Revised) supersede Exhibit A of said agreement; and

WHEREFORE, County desires to permit said additions and changes, to permit Exhibit A (Revised) to supersede Exhibit A of said agreement; and

WHEREFORE, County desires to make some revisions and clarifications in the terms and conditions of the easements to be granted by the County for these facilities as part of said agreement; and

WHEREFORE, City desires to permit said revisions and clarifications;

NOW THEREFORE, IT IS AGREED between the City and County to make the following additions and changes to said agreement:

1. County grants the City permission to add the additional wells, pipelines, and access roads; increase the pipeline sizes, and make the pipeline alignment changes, all as described in Exhibit A (Revised), attached hereto, which by this reference supersedes Exhibit A and becomes a part hereof. Therefore, Paragraph 1 is hereby revised to have facilities described as eight test wells rather than five, six production wells rather than three and to refer to Exhibit A (Revised) rather than Exhibit A.
2. In Paragraph 2, substitute "Exhibit A (Revised)" for "Exhibit A".

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WATER RESOURCES DEPT
SALEM, OREGON

3. Add a second sentence to Paragraph 3A as follows:

City may construct only such structures upon the easement as are required for the water facilities stated in Paragraph 1.

4. Add a second sentence to Paragraph 3D as follows:

No public health hazard or hazardous materials as defined by Chapter 333 of the Oregon Administrative Rules of the Oregon State Health Division may be stored within 100 feet of any water production or test well.

5. The term "Grantor" used in Paragraph 3E is hereby defined as the County. Add a second sentence to Paragraph 3E of said agreement as follows:

City shall not place fences upon and across any easement without written consent of County, said consent not to be unreasonably withheld.

6. Delete Paragraph 3F and substitute the following:

County retains the right to use any pipeline easement and that portion of any access roadway easement outside of the roadway surface for recreational activities, landscaping or agricultural purposes other than the cultivation of trees.

7. In Paragraph 3G, delete the words, "as nearly as practicable", and substitute the words, "to a condition of equal or better".

8. Delete Paragraph 3H and substitute the following:

The width of the permanent water line easements shall be twenty (20) feet with ten (10) feet on each side of the pipeline centerline. The permanent water line easements shall contain a provision allowing the City a temporary easement of an additional fifteen (15) feet on each side of the permanent easements for the initial construction work and whenever future reconstruction or maintenance work is necessary. Also, another provision shall be included requiring the County to maintain the surface of the permanent and the temporary water line easements after County acceptance of the City restoration work.

The width of the permanent access road easements shall be thirty (30) feet with fifteen (15) feet on each side of the roadway centerline. The access road easements shall contain a provision requiring the County to maintain the surface of these easements lying outside of the road surface and the City to maintain the road surface. Also, another provision shall be included to require the City to keep the roadway surface properly oiled with an asphalt binder if the surface is rock or to maintain an asphaltic concrete surface at the City's option.

The permanent well site easements shall be 90 feet by 120 feet in area and this area shall be oriented as determined by the City to encompass the well site facilities including the fill slopes. The permanent well site easements shall contain a provision allowing the City a temporary easement for an additional fifteen (15) feet around the perimeter of said permanent easements for the initial construction work and whenever future reconstruction or maintenance work is necessary. The well site easements shall also contain a provision that, within 100 feet of any water production or test well, the construction of any surface or underground structures, permanent or temporary, or the storage of any materials shall be subject to the approval of the Oregon State Health Division and shall conform to all State and local health regulations. Other provisions shall be included to require the County to maintain any grass surfacing within the well site easements and to require the City to construct and maintain underground electrical services to all of the well sites.

9. Add the following to Paragraph I:

Surplus water is defined for this agreement as water not necessary to meet the water supply demands of the water system or water supply requirements upon the system of Federal and State permits and regulations. Upon request by the County and determination by the City that the well capacity is surplus water, the City will furnish a minimum of 3 million cubic feet of water each year to Blue Lake from the City's wells in Blue Lake Park and the County will reimburse the City for the direct cost of operating wells for this purpose.

10. Delete the first sentence of Paragraph 3J and all of Exhibit B and substitute the following:

The City will construct a water supply outlet on the northerly shoreline of Blue Lake consisting of a precast concrete vault with an engineered fill sloped to that portion of the vault extending above existing ground, and rip rap on a filter blanket to be placed on the lake bottom. This outlet will be supplied from a 24-inch water line off the 42-inch collection main as shown in Exhibit A (Revised). The City will maintain all of this facility except for the ground surface, the rip rap and the filter blanket.

11. Delete Paragraph 3K and 3L and substitute the following:

The City will furnish and install a 12-inch, Class III ASTM C14, extra strength, non-reinforced concrete storm drain with rubber gaskets near the existing northerly/southerly drainage ditch and backfill both this ditch and the existing easterly/westerly drainage ditch to match the existing grades of the surrounding area, all as shown on Exhibit A (Revised).

12. All other terms and conditions of said agreement not amended herein will remain in effect.

DATED this _____ day of _____, 1983.

CITY OF PORTLAND, a Municipal
Corporation of the State of Oregon

By _____
Francis J. Ivancie, Mayor

BY _____
Jewel Lansing, Auditor

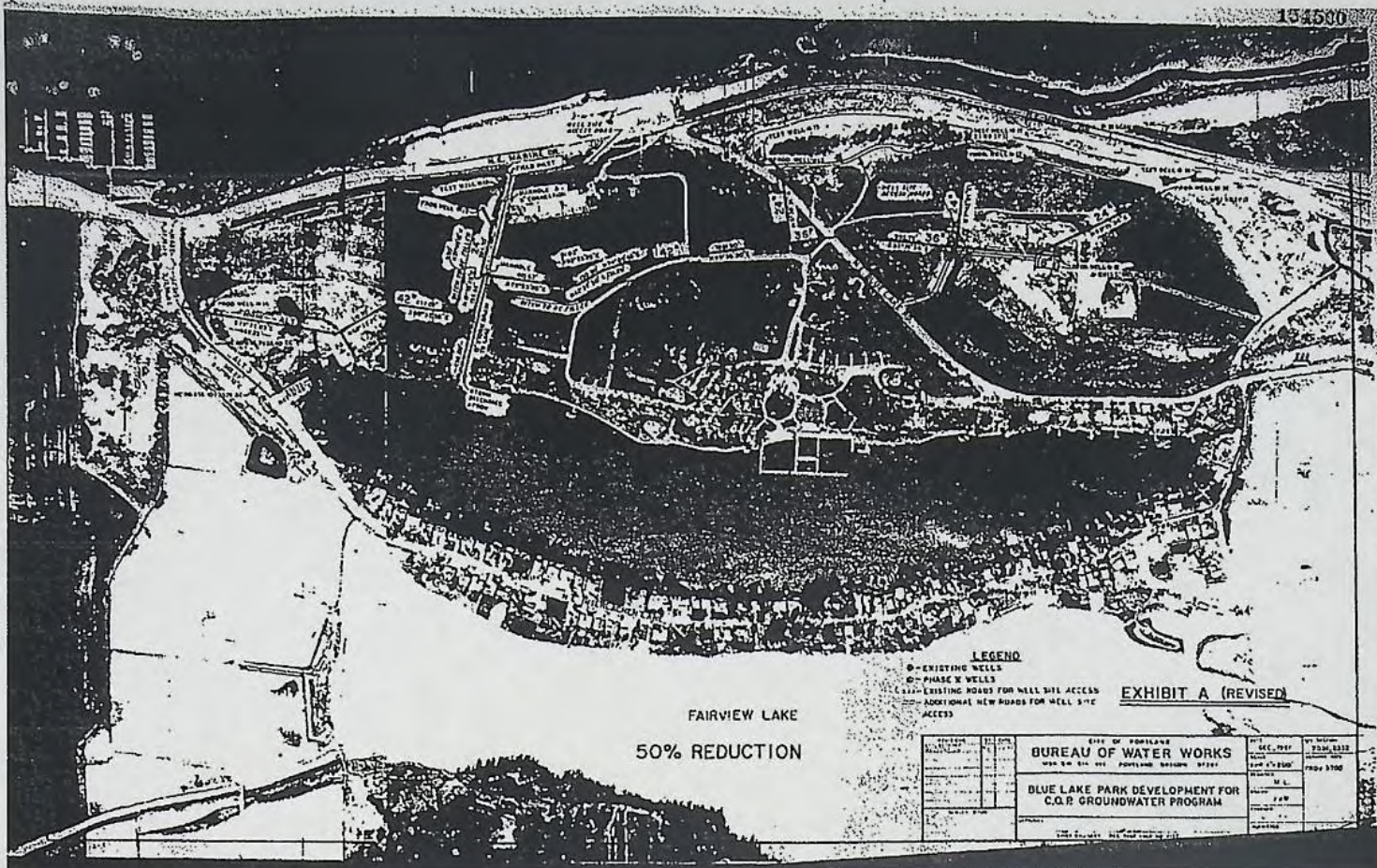
MULNOMAH, a Home Rule Subdivision
of the State of Oregon

By _____
County Executive

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WATER RESOURCES DEPT
SALEM, OREGON



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MAY 02 2012

WATER RESOURCES DEPT
SALEM, OREGON

ORDINANCE NO. 154500

An Ordinance authorizing Amendment No. 1 to Contract No. 20102, which is an intergovernmental agreement with Multnomah County permitting the City to construct, operate, and maintain wells, pipelines, and access roads in Blue Lake Park for the Groundwater Development Program, providing for additional similar facilities, changes in some facilities already authorized and declaring an emergency.

The City of Portland ordains:

Section 1. The Council finds:

1. The City has entered into Contract No. 20102, which is an intergovernmental agreement with Multnomah County permitting the City to construct, operate, and maintain wells, pipelines, and access roads in Blue Lake Park for the Groundwater Development Program.
2. After entering into Contract No. 20102, test wells constructed in Blue Lake Park and other studies have indicated the existence of a more productive groundwater aquifer than anticipated. For this reason, it is desirable to add three additional production wells and three additional test wells in Blue Lake Park, with the necessary additional collection mains and access roads. Due to the addition of these production wells and an increase in the flows in two of the production wells already authorized, it is also necessary to authorize increases in pipeline sizes and changes in some alignments in order to complete the design of this project. Multnomah County agrees to these additions and changes but also desires to make certain revisions and clarifications in the terms and conditions of the easements to be granted by the County for these facilities as part of the original agreement. The Water Bureau has no objections to these revisions and clarifications.
3. The additions and changes stated in Paragraph 2 are described in Amendment No. 1 with its Exhibit A (Revised), and both of these documents are similar to the copies attached to the original only hereof, marked Supplement No. 1, and by this reference made a part hereof.
4. These contract amendments, under the terms stated herein, were recommended by the Administrator of the Bureau of Water Works, and approved by the Commissioner-in-Charge.

NOW, THEREFORE, the Council directs:

- a. The Mayor and the Auditor are hereby authorized to execute Amendment No. 1 to Contract No. 20102 with its Exhibit A (Revised), marked Supplement No. 1 with Multnomah County providing for additional wells, pipelines, and access roads; increases in pipeline sizes, pipeline alignment changes and certain revisions and clarifications

154500

ORDINANCE No.

to easements to be granted, all facilities to be located in Blue Lake Park for the Groundwater Development Program. The executed amendment shall be delivered to Denise Francis, 620 S.W. 5th Avenue, Room 408, Portland, Oregon, 97201, Multnomah County's Counsel, for execution by Multnomah County.

Section 2. The Council declares that an emergency exists because any delay in executing this amendment will unnecessarily delay the construction of the mentioned water facilities; therefore, this Ordinance shall be in force and effect from and after its passage by Council.

Passed by the Council, MAY 4 1983

Mayor Ivancie
April 26, 1983
R. Rector:rjm
BUC No. 186000374
Project No.

Jewel Lansing
Auditor of the City of Portland
By

Elena Cervera Deputy

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MAY 02 2012

WATER RESOURCES DEPT
SALEM, OREGON

THE COMMISSIONERS VOTED AS FOLLOWS:		
	Yeas	Nays
JORDAN	/	
LINDBERG	/	
SCHWAB	/	
STRACHAN	/	
IVANCIE	/	

FOUR-FIFTHS CALENDAR	
JORDAN	
LINDBERG	
SCHWAB	
STRACHAN	
IVANCIE	

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 MAY 02 2012
 WATER RESOURCES DEPT
 SALEM, OREGON

Calendar No. 1101

ORDINANCE No. 154500

Title

An Ordinance authorizing Amendment No. 1 to Contract No. 20102, which is an intergovernmental agreement with Multnomah County permitting the City to construct, operate, and maintain wells, pipelines, and access roads in Blue Lake Park for the Groundwater Development Program, providing for additional similar facilities, changes in some facilities already authorized and declaring an emergency.

Filed APR 28 1983

JEWEL LANSING
Auditor of the CITY OF PORTLAND

By *[Signature]*
Deputy

INTRODUCED BY
Mayor Francis J. Ivancie
NOTED BY THE COMMISSIONER
Affairs
Finance and Administration <i>[Signature]</i>
Safety
Utilities
Works

BUREAU APPROVAL
Bureau:
Water Bureau
Prepared By: Date:
R. Rector:rjm April 26, 1983
Budget Impact Review:
<input checked="" type="checkbox"/> Completed <input type="checkbox"/> Not required
Bureau Head:
Carl Goebel, Administrator

CALENDAR
Consent X Regular

NOTED BY
City Attorney
City Auditor
City Engineer

EXHIBIT S

AMENDMENT NO. 2
TO
INTERGOVERNMENTAL AGREEMENT
(CONTRACT NO. 20102)

THIS AMENDMENT NO. 2 is made and entered into by and between the CITY OF PORTLAND, a municipal corporation of the State of Oregon, hereinafter referred to as "City" and MULTNOMAH COUNTY, a home rule subdivision of the State of Oregon, hereinafter referred to as "County".

WITNESSETH:

WHEREAS, City desires to provide an emergency water supply to the residents of the Interlachen, Inc., West Interlachen Water Co-Op, and Blue Lake Water Co-Op, in the event that the operation of City's wells adversely impacts the operation of existing wells serving said residents; and

WHEREAS, in connection with the Intergovernmental Agreement (Contract No. 20102) between City and County, City requires additional conditional pipeline easement in Blue Lake Park to provide said emergency water supply as described in Exhibit A (Revision 2), which the City desires to have supersede Exhibit A (Revised) of said agreement; and

WHEREAS, City requires consent of County to make said addition and to have said Exhibit A (Revision 2) supersede Exhibit A (Revised) of said agreement; and

WHEREAS, the County has signed Contract No. 20102 with the City of Portland, expressing its desire that the City be permitted to develop certain wells, pipelines, access roads, and necessary related structures in Blue Lake Park; and

WHEREAS, the County may, at some time in the future, desire to develop the undeveloped area currently proposed and agreed to as the site for Well No. 12, 13, 14, 17, 18 and 19; and

WHEREAS, County development of this area may require the relocation of the well(s), pipelines, necessary structures and access roads which relocation will be costly;

NOW THEREFORE, IT IS AGREED between the City and County to make the following additions and changes to said agreement:

1. County grants the City permission to add the additional pipeline as described in Exhibit A (Revision 2), attached hereto, which by this reference supersedes Exhibit A (Revised) and becomes a part hereof. Therefore, Paragraph 1 is hereby revised to refer to Exhibit A (Revision 2) rather than Exhibit A (Revised).
2. Upon request by the County, the City at no cost to the County agrees to relocate the pipeline providing emergency water supply to residents of the Interlachen, Inc., West Interlachen Water Co-Op and Blue Lake Water Co-Op, on condition that all of the following stipulations are satisfied:
 - a. County grants to City an additional conditional pipeline easement in Blue Lake Park to construct the said pipeline, if deemed necessary, at a location mutually agreed upon between the City and County.

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WATER RESOURCES DEPT
SALEM, OREGON

- b. County agrees to notify the City of its desired pipeline relocation date far enough in advance to allow City a reasonable amount of time to plan, prepare engineering drawings and specifications and construct the new pipeline.
3. Upon request by the County, the City will agree to relocate any of said Well Site(s) and its (their) associated pipelines and structures which are shown on Exhibit A (Revision 2) to another location within Blue Lake Park, on condition that all of the following stipulations are satisfied:
 - a. County bears all the costs associated with the relocation of Replacement Well Site(s), such as, but not limited to abandoning the existing facility, performing necessary geological exploration to locate suitable location(s) for replacement well(s) in Blue Lake Aquifer, constructing a new production and test well comparable in capacity and performance to the existing well(s) as determined by the City (County is required to pay for the cost of no more than one production and one test well for each replacement well), construction of the well site(s), and installation of required connecting pipeline(s) to the existing collection main.
 - b. County is able and does grant the City additional easements in Blue Lake Park for reconstruction of Replacement Well Site(s) under the same terms and conditions outlined in Amendment No. 1 to Intergovernmental Agreement (Contract No. 20102). The replacement well site(s) shall be constructed at the location(s) most suitable for its intended use as mutually agreed upon between the City and County.
 - c. City is able to secure a permit from the Oregon State Water Resources Department and the Oregon State Health Division for construction of production well(s) at the proposed new location(s) in Blue Lake Park and secure a transfer by the Oregon State Water Resources Department of the Water Right Permits complete with their existing date of priority from the existing well(s) to the replacement well(s).
 - d. County shall notify the City of its desired date of abandonment of Well Site(s) by City at least two years in advance.
3. All other terms and conditions of said agreement not amended herein will remain in effect.

DATED this ____ day of _____, 1983

CITY OF PORTLAND, a Municipal Corporation of the
State of Oregon

By _____

Francis J. Ivancie, Mayor

By _____

Jewel Lansing, Auditor

MULTNOMAH, a Home Rule Subdivision of the State of
Oregon

By _____

County Executive

MA:czb

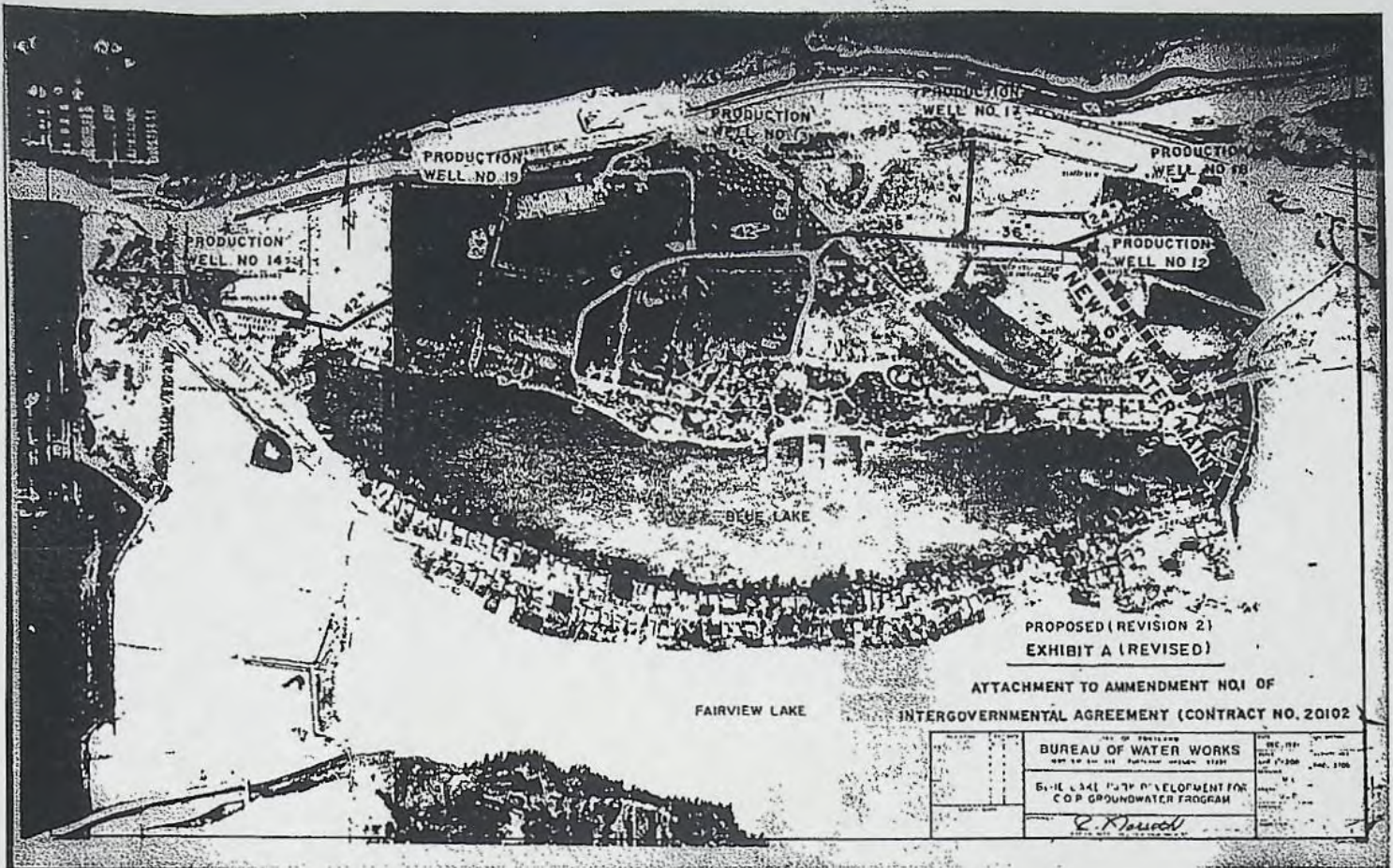
ADM/LLE-Amend2

approval as to form
Shirley Seal

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MAY 02 2012

**WATER RESOURCES DEPT
SALEM, OREGON**



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MAY 02 2012

WATER RESOURCES DEPT
SALEM, OREGON

ORDINANCE NO. 156248

An Ordinance authorizing Amendment No. 2 to Contract No. 20102, which is an intergovernmental agreement with Multnomah County permitting the City to construct, operate and maintain wells, pipelines and access roads in Blue Lake Park for the Groundwater Development Program, providing for the addition of the Blue Lake Groundwater Resource Replacement Water System, allowing the County to relocate, at its own cost, well site facilities for possible future park development and declaring an emergency.

The City of Portland ordains:

Section 1. The Council finds:

1. The City has entered into Contract No. 20102 and its subsequent Amendment No. 1, which is an intergovernmental agreement with Multnomah County permitting the City to construct, operate and maintain wells, pipelines and access roads in Blue Lake Park for the Groundwater Development Program.
2. The Bureau of Water Works has developed plans to construct and operate six (6) production well facilities in Blue Lake Park.
3. The Bureau has applied to Multnomah County for Community Service Use Permit for these well sites.
4. The Board of County Commissioners has agreed to grant the City the Community Service Use Permit for these well sites provided that the Bureau of Water Works designs and constructs the Blue Lake Groundwater Resource Replacement Water System for the benefit of Interlachen, Inc., West Interlachen Water Co-op, and Blue Lake Water Co-op residents. Also, the Bureau of Water Works agrees to relocate any of its Blue Lake well site facilities at the County's request and cost to allow for the possible future development in the Blue Lake Park by Multnomah County.
5. The additions and changes stated in paragraph four of Section 1 are described in Amendment No. 2 with its Exhibit A (Revision 2), and both of these documents are similar to the copies attached to the original only hereof, marked Supplement 1 and by this reference made a part hereof.
6. These contract amendments, under the terms as stated herein, were requested by the Board of County Commissioners and executed by the County Executive. This Amendment No. 2 was recommended by the Administrator of the Bureau of Water Works, and approved by the Commissioner-in-Charge.

NOW, THEREFORE, the Council directs:

- a. The Auditor and the Mayor are hereby authorized to execute Amendment No. 2 to Contract No. 20102 with its Exhibit A (Revision 2), with Multnomah County.

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MAY 02 2012

WATER RESOURCES DEPT
SALEM, OREGON

ORDINANCE No.

Section 2. The Council declares that an emergency exists because any delay in executing this amendment will unnecessarily delay the construction of the subject water facilities; therefore, this Ordinance shall be in force and effect from and after its passage by the Council.

Passed by the Council. **JUL 11 1984**

Mayor Ivancie
June 26, 1984
M. Anoushiravani:czb GW0/0-20102

Jewel Lansing

Auditor of the City of Portland

By

Eana Cervoni

Deputy

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MAY 02 2012

**WATER RESOURCES DEPT
SALEM, OREGON**

WATER RESOURCES DEPT
SALEM, OREGON

MAY 02 2012

RECEIVED

THE COMMISSIONERS VOTED AS FOLLOWS		
	Yeas	Nays
JORDAN		
LINDBERG	/	
SCHWAB	/	
STRACHAN	/	
IVANCIE	/	

FOUR-FIFTHS CALENDAR	
JORDAN	
LINDBERG	
SCHWAB	
STRACHAN	
IVANCIE	

Calendar No. 15

ORDINANCE No. 156248

Title

An Ordinance authorizing Amendment No. 2 to Contract No. 20102, which is an intergovernmental agreement with Multnomah County permitting the City to construct, operate and maintain wells, pipelines and access roads in Blue Lake Park for the Groundwater Development Program, providing for the addition of the Blue Lake Groundwater Resource Replacement Water System, allowing the County to relocate, at its own cost, well site facilities for possible future park development and declaring an emergency.

Filed JUN 29 1984

JEWEL LANSING
Auditor of the CITY OF PORTLAND

By Dennis W. B.
Deputy

INTRODUCED BY
MAYOR IVANCIE

NOTED BY THE COMMISSIONER
Attains
Finance and Administration <i>F-51 by JKS</i>
Safety
Utilities
Works

BUREAU APPROVAL
Bureau WATER WORKS
Prepared By Date:
M. Anoushiravani June 26, 1984
Budget Impact Review:
<input type="checkbox"/> Completed <input type="checkbox"/> Not required
Bureau Head:
Carl Goebel Administrator

CALENDAR
Consent <input checked="" type="checkbox"/> Regular

NOTED BY
City Attorney
City Auditor
City Engineer

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WATER RESOURCES DEPT
SALEM, OREGON

Oregon Water Resources Department
Water Rights Division



Water Rights Application
Number G-10906

Final Order
Extension of Time for Permit Number G-10124

PW #5 17, 18, 19

Appeal Rights

This is a final order in other than a contested case. This order is subject to judicial review under ORS 183.484. A request for judicial review must be filed within the 60 day time period specified by ORS 183.484(2). Pursuant to ORS 536.075 and OAR 137-004-0080 you may either file for judicial review, or petition the Director for reconsideration of this order. A petition for reconsideration may be granted or denied by the Director, and if no action is taken within 60 days following the date the petition was filed, the petition shall be deemed denied.

Application History

The Department issued Permit G-10124 on October 28, 1983. The permit called for completion of construction by October 1, 1985, and complete application of water to beneficial use by October 1, 1986. On October 31, 2003, the City of Portland submitted an application to the Department for an extension of time for Permit G-10124. In accordance with OAR 690-315-0050(2), on August 4, 2009, the Department issued a Proposed Final Order proposing to extend the time to complete construction to October 1, 2085 and to extend the time to fully apply water to beneficial use to October 1, 2085. The protest period closed September 18, 2009, in accordance with OAR 690-315-0060(1). No protest was filed.

At time of issuance of the Proposed Final Order the Department concluded that, based on the factors demonstrated by the applicant, the permit may be extended subject to the following conditions:

CONDITIONS

1. **Development Limitations**

Diversion of any water beyond 62.04 cfs under Permit G-10124 shall only be authorized upon issuance of a final order approving a Water Management and Conservation Plan (WMCP) under OAR Chapter 690, Division 86. The required WMCP shall be submitted to the Department within 3 years of an approved extension application. Use of water under Permit G-10124 must be consistent with this and subsequent WMCP's approved

8

under OAR Chapter 690, Division 86 on file with the Department.

The deadline established in this PFO for submittal of a WMCP shall not relieve a permit holder of any existing or future requirement for submittal of a WMCP at an earlier date as established through other orders of the Department. A WMCP submitted to meet the requirements of this order may also meet the WMCP submittal requirements of other Department orders.

2. **Persistence of Fish Conditions**

Minimum fish flow needs on the Columbia River as recommended by ODFW are in Table 1, below; flows must be measured as the total outflow discharge from Bonneville Dam (as determined by the U.S. Army Corps of Engineers Division of Water Management) or an equivalent measurement thereof.

Table 1

MINIMUM FISH FLOW NEEDS ON THE COLUMBIA RIVER AT BONNEVILLE DAM	
Month	Cubic Feet per Second
April 1 – April 30	183,000
May 1 – May 31	328,000
June 1 – June 30	471,000
July 1 – July 31	325,000
August 1 – August 31	184,000
Sept. 1 – Sept. 30	117,000

B. **Determining Water Use Reductions - Overview**

The use of the undeveloped portion of Permit G-10124 that impacts Columbia River surface water and legally can be diverted must be reduced in proportion to the amount by which the flows shown in Table 1 are not met based on a seven day rolling average of mean daily flows measured on the Columbia River at Bonneville Dam (measured as the total outflow discharge from Bonneville Dam - as determined by the U.S. Army Corps of Engineers Division of Water Management - or an equivalent measurement thereof). This reduction will be adjusted by (1) a Consumptive Use Percentage, when applicable, as per Item 2.D., below, and (2) all or a portion of the Actual HCP Flows as described in Item 2.E., below. The overall reduction to the maximum total amount of the undeveloped portion of the permit that impacts Columbia River surface water and legally can be diverted will not exceed 20%.

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C. Percent of the Undeveloped Portion with Impacts on Surface Water.

For the purpose of calculating the amount of the undeveloped portion of Permit G-10124 that can be diverted as a result of this fish persistence condition, 93.7% of the undeveloped portion under this permit impacts Columbia River surface water.

D. "Consumptive Use Percentages"

a. Initial Consumptive Use Percentages

Initial Consumptive Use Percentages for the City of Portland to adjust water use reductions for the purpose of calculating the amount of the undeveloped portion of Permit G-10124 that can be diverted as a result of this fish persistence condition are as shown in the Table 3, below. Utilization of Initial Consumptive Use Percentages is subject to an approval period described in 2.D.e, below.

Table 3

Month	Initial Consumptive Use Percentages
April	3.4%
May	15.4%
June	29.6%
July	42.7%
August	42.5%
September	29.1%

b. Consumptive Use Percentages Updates

Continuing the utilization of Consumptive Use Percentages for the purpose of calculating the amount of the undeveloped portion of Permit G-10124 that can be diverted as a result of this fish persistence condition beyond an approval period (as described in 2.D.e, below) is contingent upon the City submitting updated Consumptive Use Percentages and receiving the Water Resources Director's concurrence with the Consumptive Use Percentages Updates. Utilization of Consumptive Use Percentages Updates is subject to an approval period described in 2.D.e, below.

The updates to the Consumptive Use Percentages must (1) be specified as a percentage (may be to the nearest 1/10 percent) for each month, April through September, and (2) include a description and justification of the methods utilized to determine the percentages. The updates should be submitted on the *Consumptive Use Percentages Update Form* provided with the Final Order for this extension of time.

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MAY 02 2012

MAY 02 2012

WATER RESOURCES DEPT
SALEM, OREGON

c. Changes to Wastewater Technology and/or Wastewater Treatment Plant Practices

If there are changes to either wastewater technology or the practices at the Columbia Boulevard Wastewater Treatment Plant (WWTP) resulting in 25% or more reductions in average monthly return flows to the Columbia River, then the Consumptive Use Percentages in effect at that time may no longer be utilized for the purposes of calculating the amount of the undeveloped portion of Permit G-10124 that can be diverted as result of this fish persistence condition. The 25% reduction is based on a 10-year rolling average of monthly wastewater return flows to the Columbia River as compared to the average monthly wastewater return flows from the years 2000 to 2009.

If such changes to the Columbia Boulevard WWTP occur resulting in 25% reductions, further utilization of Consumptive Use Percentages is contingent upon the City submitting Consumptive Use Percentages Updates as per 2.D.b., above, and receiving the Water Resources Director's concurrence with the updated Consumptive Use Percentages.

d. Relocation of the Point(s) of Diversion(s) and/or Return Flows

If the point(s) of diversion(s) and/or return flows are relocated, Consumptive Use Percentages in effect at that time may no longer be utilized for the purposes of calculating the amount of the undeveloped portion of Permit G-10124 that can be diverted as result of this fish persistence condition.

After relocation of the point(s) of diversion(s) and/or return flows, further utilization of Consumptive Use Percentages is contingent upon the City (1) providing evidence in writing that ODFW has determined that any relocated withdrawal points and effluent discharge points are within reasonable proximity to each other, such that fish habitat between the two points is not impacted significantly, and (2) submitting Consumptive Use Percentages Updates as per 2.D.b., above, and receiving the Water Resources Director's concurrence with the updated Consumptive Use Percentages.

e. Approval Periods for Utilization of Consumptive Use Percentages

The utilization of Consumptive Use Percentages for the purpose of calculating the maximum total amount of the undeveloped portion of Permit G-10124 that can be diverted as a result of this fish persistence condition may continue for a 10 year approval period that begins from either (1) the date of the Extension Final Order, or (2) 10 years from the Water Resources Director's most recent date of concurrence with Consumptive Use Percentages Updates as evidenced by the record, unless sections 2.D.c, or 2.D.d. (above) are applicable.

Consumptive Use Percentages Updates which are submitted and receive the Director's concurrence will begin a new 10 year approval period. The approval period begins on the date of the Water Resources Director's concurrence with Consumptive Use Percentages Updates, as evidenced by the record. The City at its discretion may submit updates prior to the end of an approval period.

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SALEM, OREGONE. Adjustments by Actual HCP Flows

HCP Flows are defined as the instream flows provided to the Lower Bull Run River by the City of Portland in response to its Bull Run Water Supply Habitat Conservation Plan (HCP) habitat conservation measure 7.2.1 (UTL-2.07, Instream Flow Measures in the Lower Bull Run River, pgs 7-6 to 7-13). The quantification of HCP flows will be based on a seven day rolling average of mean daily flows measured on the Bull Run River near Bull Run, Oregon (USGS GAGE No. 1414000, or its equivalent). HCP flows based this seven day rolling average are referred to as Actual HCP Flows.

For the purpose of calculating the amount of the undeveloped portion of Permit G-10124 that can be diverted as a result of this fish persistence condition, all or a portion of the Actual HCP Flows may be utilized to offset water use reductions. The total sum of all HCP flow adjustments made to any combination of undeveloped portions reduced under Permits G-8755, G-10124, G-10455 and/or G-10479 as a result of extension fish persistence conditions may not exceed the Actual HCP Flows for any seven day rolling average period.

F. ExamplesExample 1:

If on April 15, the last seven mean daily flows were 208,100; 206,200; 201,400; 202,300; 190,900; 182,100; and 180,300 cfs; the seven day rolling average is 195,900 cfs. The use of the maximum total amount of the undeveloped portion of the permit that legally could be diverted would not be reduced because the 7 day average of mean daily flows is greater than the 183,000 cfs target flow during the month of April.

Example 2:

Step 1: If on July 15, the average of the last seven mean daily flows was 111,200 cfs, the target flow would be missed by 65.8%. The use of the maximum total amount of the undeveloped portion of the permit that legally could be diverted would be reduced because the 7 day average of mean daily flows is less than the 325,000 cfs target flow during the month of July.

$$(100 - [(111,200 / 325,000) \times 100\%]) = 65.8\%$$

Step 2: If the maximum total amount of the undeveloped portion of the permit that legally can be diverted under a permit is 20.0 cfs and 93.5% of the undeveloped portion impacts Columbia River surface water, then the maximum total amount of the undeveloped portion of the permit with surface water impacts and legally can be diverted would be 18.70 cfs.

$$(20.0 \text{ cfs} \times [93.5\% / 100]) = 18.7 \text{ cfs}$$

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Note: In Steps 3 – 5, the maximum total amount of the undeveloped portion of the permit with surface water impacts and legally can be diverted will be referred to as the “qualified undeveloped portion.”

Step 3: Assuming the Consumptive Use Percentage is 42.7% during the month of July and the utilization of this percentage is authorized, and the flow target is missed by 65.8% (from Step 1), then the reduction to the qualified undeveloped portion would 28.1%.

$$([65.8\% \times 42.7\%] / 100) = 28.1\%$$

(If adjustments are not to be made by a Consumptive Use Percentage, the qualified undeveloped portion would be reduced only by the % by which the target flow is missed – 65.8% in this example).

Step 4: In this example, the reduction to the qualified undeveloped portion due to the missed target flow percentage adjusted by the Consumptive Use Percentage would be 5.25 cfs.

$$(18.70 \text{ cfs} \times [28.1\% / 100]) = 5.25 \text{ cfs}$$

Step 5: Assuming the Actual HCP Flows were 20.0 cfs, and 16.6 cfs is utilized to offset reductions in other South Shore Columbia Well Field permits, 3.4 cfs of the Actual HCP Flows would be available to offset reductions in G-10124. The 5.25 cfs determined in Step 4 would be decreased by 3.4 cfs, ending with an overall reduction to the qualified undeveloped portion of 1.85 cfs.

$$(5.25 - [20.0 \text{ cfs} - 16.6 \text{ cfs}]) = 1.85 \text{ cfs}$$

Step 6: This 1.85 cfs reduction is 9.9% of 18.70 cfs (the maximum total amount of the undeveloped portion of the permit with surface water impacts and legally can be diverted as calculated in Step 2). This 9.9% does not exceed the 20% maximum overall reduction.

$$([1.85 / 18.70] \times 100\%) = 9.9\%$$

Step 7: In this example, the maximum total amount of the undeveloped portion of the permit that legally could be diverted under the permit under this condition would be 18.15 cfs

$$(20.0 \text{ cfs} - 1.85 \text{ cfs}) = 18.15 \text{ cfs}$$

The applicant has demonstrated good cause for the permit extension pursuant to ORS 537.630, 539.010(5) and OAR 690-315-0080(3).

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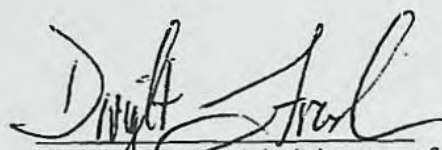
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Order

The extension of time for Application G-10906, Permit G-10124, therefore, is approved subject to conditions contained herein. The deadline for completing construction is extended to October 1, 2085. The deadline for applying water to full beneficial use is extended to October 1, 2085.

DATED: October 6, 2009


Dwight French, Administrator of
Water Rights and Adjudications
for
Phillip C. Ward, Director

If you have any questions about statements contained in this document, please contact Ann L. Reece at (503) 986-0827.

If you have other questions about the Department or any of its programs, please contact our Water Resources Customer Service Group at (503) 986-0900.

Oregon

WATER RESOURCES DEPARTMENT

April 19, 1993

THOM WARREN
PORTLAND BUREAU OF WATER WORKS
1120 SW FIFTH AVENUE
PORTLAND OR 97204 1926

RE: USER-ID # 1218

With regard to the pump test requirements for the following well and its associated water right:

POD-ID	Well	Application	Permit	Certificate	Status
26804	# 18	G-10906	G-10124	0	Approved

The Water Resources Department has reviewed and accepted the pump test results you submitted. The Department requires no further testing of this well at this time. However, you will be required to submit a static water level measurement of the well on the ten-year anniversary of the test you conducted.

We appreciate your cooperation in this program. If you have any questions, please contact Mike Zwart or Bill Ferber at the address below or by calling 378-8455.

Sincerely,

Wendy Mollgaard

for
FRED LISSNER, Manager
Groundwater/Hydrology Section

cc: Water Rights Section

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3850 Portland Rd NE
Salem, OR 97310
(503) 378-3739
FAX (503) 378-8130

9

The SAS system

Well owner:

Portland Bureau of Water Works
attn: Thom Warren
1120 S.W. 5th Avenue
Portland, OR. 97204-1926

Well location:

Township: 1N Range: 3E Section: 21
1/4 1/4 : SWNE 1/4 Sec. ID# : 2552
840 feet NORTH & 1090 feet EAST
from SW corner, section 2

Water right information:

Water district/location: PRODUCTION Well no: 18 Pod-id: 11978
Application no: G 10906 Permit no: G 10124 Certificate no: _____
Well depth: 193 Date drilled: 31OCT1983
Permit Rate 100.0 cfs This Well 33.3 cfs
Tax Lot Identifier 1N3E21AC County MULT
Priority Date 25MAR83

Pump test:

Test conducted by: OP ENG Well owner?(Y/N): Y Test date: 17AUG1992
Company: PORTLAND WATER BUREAU Address: 1120 SW 5TH AVE
City, State, Zip: PORTLAND, OR.
Method of discharge measurement: FLOWMETER
Method of water level measurement: PRESSURE TRANSDUCER
Depth of air line (if used): _____ Pump type: SUBMERSIBLE
Was pump test conducted during normal use of the well?(Y/N): Y
Point from which water level was measured: SEE METHOD
Is measuring point above or below ground level? ABOVE
Distance between measuring point and ground level: 7.4 FT
Are you aware of any wells, other than domestic or stock wells, pumping within
1000 feet of the well during the test or within 24 hours prior?(Y/N): Y
If yes: Give approximate distances and approximate pumping rate of each. If
possible, indicate if they were turned on or off during the test.
PRODUCTION WELL #12 650FT WSW: PUMP ON - 4900GPM
PRODUCTION WELL #13 1900FT WEST: PUMP ON - 7300GPM
Is there a lake, stream, or other surface water body within 1/4 mile?(Y/N): Y
If yes: Give approximate distance and elevation difference between the surface
water and well head. Approximate distance: 500 ft.
Approximate elevation difference: 10 ft.
Is well elevation above or below the surface water body? ABOVE

Static water level measurements: Three measurements at least 20 minutes apart
are required in the hour before pumping begins.

Time:	7:00:00	Depth to water:	19 (ft)	8 (in)
Time:	7:20:00	Depth to water:	19 (in)	1 (in)
Time:	7:40:00	Depth to water:	19 (in)	1 (in)

Discharge Measurements: A discharge measurement is required at the start of
pumping and once an hour during the test.

Time:	8:25:00	Discharge rate:	7500 (gpm)
Time:	9:25:00	Discharge rate:	7300 (gpm)
Time:	10:25:00	Discharge rate:	7300 (gpm)
Time:	11:25:00	Discharge rate:	7200 (gpm)
Time:	12:25:00	Discharge rate:	7500 (gpm)

Pump turned on: Date: 17AUG1992 Time: 8:25:00
Pump turned off: Date: 30SEP1992 Time: 22:30:00
Total pumping time: Hours: 1070 Minutes: 5
Well must be idle for at least 16 hours prior to the test!

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P.O.D.-ID 11978

All water level measurements must either be in 1) feet and inches, or 2) feet and decimal fractions. (Circle one)

WATER RESOURCES DEPT
SALEM, OREGON



Oregon

Theodore R. Kulongoski, Governor

Water Resources Department

North Mall Office Building
725 Summer Street NE, Suite A
Salem, OR 97301-1266
503-986-0900
FAX 503-986-0904

April 15, 2010

David G. Shaff, Administrator
City of Portland Water Bureau
1120 SW 5th Avenue
Portland, Oregon 97204

SUBJECT: Water Management and Conservation Plan

Dear. Mr. Shaff

Thank you for your response to my review of your water management and conservation plan.

Enclosed is the proposed final order approving your water management and conservation plan. Pursuant to OAR 690-086-0915 (2002), the City or any person who provided comments in response to the public notice of submittal of the plan may appeal this order to the Water Resources Commission within 30 days of the mailing of this notification.

We appreciate your cooperation in this effort. Please do not hesitate to call me at 503-986-0887 if you have any questions.

Sincerely,

Bill

Bill Fujii, NRS III
Field Services Division

Enclosure

C Lisa Brown WWO

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**BEFORE THE WATER RESOURCES DEPARTMENT
OF THE
STATE OF OREGON**

In the Matter of the Proposed Water)	NOTIFICATION AND PROPOSED
Management and Conservation Plan for)	FINAL ORDER APPROVING
City of Portland, Multnomah County)	WATER MANAGEMENT AND
)	CONSERVATION PLAN

Authority

OAR Chapter 690, Division 086, establishes the process and criteria for approving water management and conservation plans required under the conditions of permits, permit extensions and other orders of the Department. An approved water management plan may authorize the diversion and use of water under a permit extended pursuant to OAR Chapter 690, Division 315.

Background

On March 31, 2008, the City of Portland submitted a draft Water Management and Conservation Plan (WMCP) for review under OAR Chapter 690, Division 086 (November 2002). Submittal of the plan is required under a previously approved WMCP, under conditions of various permits and an order extending the authorized date on a permits.

The Department published notice of receipt of the plan on April 1, 2008. Comments were received from WaterWatch of Oregon.

The Department provided comments on the plan to the City on June 27, 2008 and, in response, the City submitted a revised plan on March 8, 2010.

Findings of Fact

1. The City of Portland Water Management and Conservation Plan contains all of the plan elements required under OAR 690-086-0125. The projections of future water needs in the plan demonstrate a need for over 53.39 million gallons per day of water available under Permits G-8755, G-10124, G-10455, and G-10479 to meet demands for the population anticipated in 20 years. These projections are reasonable and consistent with the City's land use plan. The City requires wholesale customers to submit a WMCP. Those WMCP's must be consistent with related land use plans for the local entities.
2. The plan includes 5-year benchmarks for implementation of rate study, pilot test of reuse, education program, technical services, meter testing and replacement. The

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system is fully metered and the rate structure includes a base rate and volumetric charge. Unaccounted-for water is estimated at six percent.

3. The plan includes 5-year benchmarks for evaluation, development, and implementation of programs to perform a rate study and a pilot test of reuse.
4. The plan identifies the Bull Run River, ground water and Crystal Springs Creek as the source of the City's water rights and accurately and completely describes the City's Habitat Conservation Plan (HCP) consistent with the Federal Endangered Species Act.
5. The water curtailment element included in the plan satisfactorily promotes water curtailment practices and includes a list of four stages of alert with concurrent curtailment actions.
6. The diversion of water in the existing well field will be expanded under Permits G-8755, G-10124, G-10455, and G-10479. Use from these permits will be initiated during the next 20 years and consistent with OAR 690-086-0130(7):
 - a. The plan includes a schedule for development of a combination of existing and new conservation measures that provide water at a cost that is equal to or lower than the cost the use of the existing and expanded well field.
 - b. Use of the additional wells in the well field increases the reliability of the City's water supplies particularly in times of shortage due to drought or catastrophe. Increased use from the source is the most feasible and appropriate water supply alternative available to the supplier.
 - c. The plan contains documentation that the supplier is complying with mitigation requirements under the HCP developed in cooperation with the Federal action agencies.

Determination and Proposed Action

The water management and conservation plan submitted by the City of Portland appears to be consistent with the criteria in OAR Chapter 690, Division 086. If appeals are not filed pursuant to OAR 690-086-0915(10), the water management and conservation plan will be approved.

If the water management and conservation plan is approved, the final order will include the following:

1. The City of Portland Water Management and Conservation Plan is approved and shall remain in effect until March 31, 2020 unless this approval is rescinded pursuant to OAR 690-086-0920.
2. The limitation of the diversion of water under Permits G-8755, G-10124, G-10455, and G-10479 established by the extension of time approved on October 6, 2009 is

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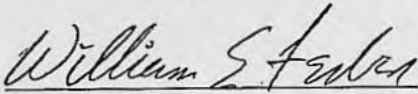
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removed and, subject to other limitations or conditions of the permit, the City of Portland is authorized to divert up to 82.59 cfs under Permits G-8755, G-10124, G-10455, and G-10479. This use does not allow the use of water in excess of any individual permit limitations.

3. The City of Portland shall submit an updated plan within ten years and no later than March 31, 2020 and shall submit a progress report containing the information required under OAR 690-086-0120(4) by March 31, 2015.

Dated at Salem, Oregon this 15th day of April, 2010


for Phillip C. Ward, Director

Appeals should be addressed to the attention of: Bill Fujii

Appeals deadline: **MAY 20 2010**

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					GPM PW17		GPM PW18		GPM PW19
11/14/2006 22:00	2623.31	157398.37	6152.00	369119.74	2480.41	148824.32	6446.10	386765.95	5847.15
11/14/2006 23:00	2669.09	160145.29	6219.14	373148.58	2411.92	144714.93	6438.04	386282.49	6013.67
11/15/2006 0:00	2650.78	159046.52	6181.54	370892.46	2480.41	148824.32	6385.67	383140.02	6070.08
11/15/2006 1:00	2646.20	158771.82	6165.43	369925.55	2425.34	145520.70	6363.51	381810.53	5804.18
11/15/2006 2:00	2535.40	152124.29	5976.07	358564.31	2409.23	144553.77	6423.94	385436.46	5840.43
11/15/2006 3:00	2616.90	157013.79	6068.73	364124.03	2419.97	145198.39	6387.68	383260.90	5972.04
11/15/2006 4:00	2659.93	159595.90	6209.74	372584.53	2403.86	144231.47	6411.85	384711.27	6020.39
11/15/2006 5:00	2589.43	155365.65	6021.73	361303.86	2419.97	145198.39	6500.49	390029.30	5714.20
11/15/2006 6:00	0.00	0.00	6462.21	387732.86	2636.19	158171.16	6693.87	401632.29	6553.53
11/15/2006 7:00	0.00	0.00	6350.75	381045.03	2624.10	157445.98	6748.26	404895.62	6443.41
11/15/2006 8:00	0.00	0.00	6323.89	379433.50	2632.16	157929.43	6792.58	407554.63	6417.90
11/15/2006 9:00	2841.23	170473.70	6294.35	377660.86	149.07	8943.96	6697.90	401874.02	6125.14

2543

6629

6230

5.7 cfs

14.8 cfs

13.9 cfs

34.4 cfs TOTAL

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GWPS SCADA MEASURED FLOW RATE

DATE	M60	GPM	GPH	
11/15/2006 1:00	87.96	61082.90	3664974.28	4211.11
11/15/2006 2:00	88.90	61732.89	3703973.59	4214.81
11/15/2006 3:00	88.49	61449.57	3686974.13	4218.50
11/15/2006 4:00	88.55	61491.23	3689474.02	4222.19
11/15/2006 5:00	88.66	61570.40	3694223.92	4225.88
11/15/2006 6:00	88.49	61449.57	3686974.13	4229.57
11/15/2006 7:00	88.02	61124.57	3667474.16	4233.24
11/15/2006 8:00	87.96	61082.90	3664974.28	4236.90
11/15/2006 9:00	88.37	61366.23	3681973.73	4240.58
11/15/2006 10:00	88.31	61328.73	3679723.71	4244.26

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	PW-18	22.68
Date	Correct PZ	GW Elevation PDX Datum
8/9/1994	-79.53	-56.85
10/28/1994	-16.16	6.52
3/1/1995	-10.37	12.31
5/3/1995	-9.29	13.39
7/18/1995		
9/21/1995	-16.06	6.62
10/20/1995	-15.25	7.43
11/20/1995	-11.54	11.14
1/2/1996	-13.86	8.82
2/27/1996	-2.29	20.39
4/5/1996	-8.69	13.99
5/6/1996	-5.6	17.08
7/8/1996	-9.07	13.61
8/15/1996	-11.92	10.76
9/24/1996	-37.17	-14.49
11/1/1996	-14.07	8.61
2/11/1997	-7	15.68
3/21/1997	-4.13	18.55
5/7/1997	-2.66	20.02
7/9/1999	-9.66	13.02
8/20/1999	-11.84	10.84
10/29/1999	-14.13	8.55
12/20/1999	-9.66	13.02
2/3/2000	-9.12	13.56
3/7/2000	-11.11	11.57
4/2/2000	-12.67	10.01
6/5/2000	-11.62	11.06
7/3/2000	-13.27	9.41
8/4/2000	-13.35	9.33
9/29/2000	-16.38	6.30
11/6/2000	-16.38	6.30
12/7/2000	-15.58	7.10
4/1/2002	-13.98	8.70
4/30/2002	-11.02	11.66
6/3/2002	-7.73	14.95
7/1/2002	-7.93	14.75
8/1/2002	-14.32	8.36
9/3/2002	-16.73	5.95
10/1/2002	-17.16	5.52
11/4/2002	-15.61	7.07
12/2/2002	-15.40	7.28

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