

Appendix M. Initial Distribution System Evaluation Report



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IDSE Report for Standard Monitoring

I. GENERAL INFORMATION

A. PWS Information*

B. Date Submitted* 12/24/2008

PWSID: WA5336350
 PWS Name: City of Issaquah
 Mailing Address: P.O. Box 1307
 City: Issaquah State: WA Zip: 98027
 Population Served: 15,000

System Type: (X)	Source Water Type: (X)	Buying / Selling Relationships: (X)
<input checked="" type="checkbox"/> CWS	<input checked="" type="checkbox"/> Subpart H	<input checked="" type="checkbox"/> Consecutive System
<input type="checkbox"/> NTNCWS	<input type="checkbox"/> Ground	<input type="checkbox"/> Wholesale System
		<input type="checkbox"/> Neither

C. PWS Operations

Residual Disinfectant Type: (X)
 Chlorine Chloramines Other: _____
 Number of Disinfected Sources:
 Surface GWUDI Ground Purchased

D. Contact Person*

Name: Gregory P. Keith, MPA
 Title: Water Manager
 Phone #: (425)-837-3470 Fax #: (425)-837-3479
 E-mail: GregK@ci.issaquah.wa.us

II. STAGE 2 REQUIREMENTS*

A. Number of Compliance Monitoring Sites

B. Schedule

C. Compliance Monitoring Frequency

Existing Stage 1
 Highest TTHM
 Highest HAA5
 Total

Schedule 1
 Schedule 2
 Schedule 3
 Schedule 4

During peak historical month
 (1 monitoring period)
 Every 90 days (4 monitoring periods)

IDSE Report for Standard Monitoring

III. MONITORING RESULTS*

A. Did you deviate in any way from your approved standard monitoring plan? Yes No

If YES, explain (attach additional pages if necessary):

Please see attachment.

B. Where were your TTHM and HAA5 samples analyzed?

In-House

Is your in-house laboratory certified? Yes No

Certified Laboratory

Name of certified laboratory: Pace Analytical(formally Laucks)/Underwriter Labs/ Edge

C. What method(s) was used to analyze your TTHM and HAA5 samples?

TTHM	HAA5
<input type="checkbox"/> EPA 502.2	<input type="checkbox"/> EPA 552.1
<input checked="" type="checkbox"/> EPA 524.2	<input checked="" type="checkbox"/> EPA 552.2
<input type="checkbox"/> EPA 551.1	<input type="checkbox"/> EPA 552.3
	<input type="checkbox"/> SM 6251 B

IDSE Report for Standard Monitoring

III. MONITORING RESULTS (Continued)*

D. IDSE Standard Monitoring Results - TTHM

Site ID ¹	Data Type	TTHM (mg/L)						LRAA
		10/2/2007	12/5/2007	2/5/2008	4/7/2008	6/3/2008	8/5/2008	
Standard Monitoring Site #1	Sample Date	10/2/2007	12/5/2007	2/5/2008	4/7/2008	6/3/2008	8/5/2008	
	Sample Result	0.0189	0.0660	0.0088	0.0197	0.0257	0.0152	0.0257
Standard Monitoring Site #2	Sample Date	10/2/2007	12/5/2007	2/5/2008	4/7/2008	6/3/2008	8/5/2008	
	Sample Result	0.0666	0.0619	0.0367	0.0375	0.0425	0.0461	0.0486
Standard Monitoring Site #3	Sample Date	10/2/2007	12/5/2007	2/5/2008	4/7/2008	6/3/2008	8/5/2008	
	Sample Result	0.0664	0.0649	0.0366	0.0364	0.0425	0.0451	0.0487
Standard Monitoring Site #4	Sample Date	10/2/2007	12/5/2007	2/5/2008	4/7/2008	6/3/2008	8/5/2008	
	Sample Result	0.0015	0.0006	0.0000	0.0000	0.0006	0.0000	0.0005
Standard Monitoring Site #5	Sample Date	10/2/2007	12/5/2007	2/5/2008	4/7/2008	6/3/2008	8/5/2008	
	Sample Result	0.0708	0.0200	0.0418	0.0375	0.0340	0.0045	0.0348
Standard Monitoring Site #6	Sample Date	10/2/2007	12/5/2007	2/5/2008	4/7/2008	6/3/2008	8/5/2008	
	Sample Result	0.0645	0.0618	0.0377	0.0343	0.0416	0.0440	0.0473
Standard Monitoring Site #7	Sample Date	10/2/2008	12/5/2007	2/5/2008	4/7/2008	6/3/2008	8/5/2008	
	Sample Result	0.0583	0.0616	0.0313	0.0269	0.0330	0.0387	0.0416
Standard Monitoring Site #8	Sample Date	10/2/2007	12/85/07	2/5/2008	4/7/2008	6/3/2008	8/5/2008	
	Sample Result	0.0027	0.0000	0.0000	0.0000	0.0013	0.0000	0.0007

¹Verify that site IDs for IDSE standard monitoring sites match the site IDs in your Standard Monitoring Plan.

Attach additional sheets as needed for IDSE standard monitoring results.

IDSE Report for Standard Monitoring

III. MONITORING RESULTS (Continued)*

E. IDSE Standard Monitoring Results - HAA5

Site ID ¹	Data Type	HAA5 (mg/L)						LRAA
Standard Monitoring Site #1	Sample Date	10/2/2007	12/5/2007	2/22/2008	4/7/2008	6/3/2008	8/5/2008	
	Sample Result	0.0274	0.0310	0.0254	0.0215	0.0304	0.0274	0.0272
Standard Monitoring Site #2	Sample Date	10/2/2007	12/5/2007	2/22/2008	4/7/2008	6/3/2008	8/5/2008	
	Sample Result	0.0179	0.0289	0.0253	0.0240	0.0108	0.0226	0.0216
Standard Monitoring Site #3	Sample Date	10/2/2007	12/5/2007	2/22/2008	4/7/2008	6/3/2008	8/5/2008	
	Sample Result	0.0194	0.0287	0.0265	0.0302	0.0129	0.0295	0.0245
Standard Monitoring Site #4	Sample Date	10/2/2007	12/5/2007	2/22/2008	4/7/2008	6/3/2008	8/5/2008	
	Sample Result	0.0000	0.0000	0.0000	0.0000	0.0000	0.0050	0.0008
Standard Monitoring Site #5	Sample Date	10/2/2007	12/5/2007	2/22/2008	4/7/2008	6/3/2008	8/5/2008	
	Sample Result	0.0181	0.0223	0.0230	0.0281	0.0219	0.0014	0.0191
Standard Monitoring Site #6	Sample Date	10/2/2007	12/5/2007	2/22/2008	4/7/2008	6/3/2008	8/5/2008	
	Sample Result	0.0249	0.0303	0.0250	0.0258	0.0149	0.0517	0.0288
Standard Monitoring Site #7	Sample Date	10/2/2007	12/5/2007	2/22/2008	4/7/2008	6/3/2008	8/5/2008	
	Sample Result	0.0268	0.0330	0.0300	0.0246	0.0231	0.0449	0.0304
Standard Monitoring Site #8	Sample Date	10/2/2007	12/5/2007	2/22/2008	4/7/2008	6/3/2008	8/5/2008	
	Sample Result	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

¹Verify that site IDs for IDSE standard monitoring sites match the site IDs in your Standard Monitoring Plan.

Attach additional sheets as needed for IDSE standard monitoring results.

IDSE Report for Standard Monitoring

III. MONITORING RESULTS (Continued)*

F. Stage 1 DBPR Compliance Monitoring Results - TTHM

Site ID ¹	Data Type	TTHM (mg/L)				LRAA
		12/5/2007	3/4/2008	6/3/2008	9/4/2008	
Stage 1 Site #1	Sample Date	12/5/2007	3/4/2008	6/3/2008	9/4/2008	
	Sample Result	0.0045	0.0018	0.0045	0.0067	0.0044
	Sample Date	12/5/2007	3/4/2008	6/3/2008	9/4/2008	
Stage 1 Site #2	Sample Result	0.0005	0.0006	0.0015	0.0024	0.0013
	Sample Date	12/5/2007	3/4/2008	6/3/2008	9/4/2008	
	Sample Result	0.0017	0.0000	0.0026	0.0056	0.0025
Stage 1 Site #4	Sample Date	12/5/2007	3/4/2008	6/3/2008	9/4/2008	
	Sample Result	0.0000	0.0000	0.0000	0.0000	0.0000
	Sample Date	12/5/2007	3/4/2008	6/3/2008	9/4/2008	
Stage 1 Site #5	Sample Result	0.0000	0.0000	0.0000	0.0000	0.0000
	Sample Date	12/5/2007	3/4/2008	6/3/2008	9/4/2008	
	Sample Result	0.0019	0.0000	0.0015	0.0047	0.0020
Stage 1 Site #6	Sample Date	2/1/5/07	3/4/2008	6/3/2008	9/4/2008	
	Sample Result	0.0055	0.0022	0.0053	0.0074	0.0051
	Sample Date	12/5/2007	3/4/2008	6/3/2008	9/4/2008	
Stage 1 Site #8	Sample Result	0.0018	0.0005	0.0017	0.0015	0.0014

¹Verify that site IDs for IDSE standard monitoring sites match the site IDs in your Standard Monitoring Plan.

Attach additional sheets as needed for IDSE standard monitoring results.

IDSE Report for Standard Monitoring

III. MONITORING RESULTS (Continued)* F. Stage 1 DBPR Compliance Monitoring Results - TTHM

Site ID ¹	Data Type	TTHM (mg/L)						LRAA
		12/5/2007	3/4/2008	6/3/2008	9/4/2008			
Stage 1 Site #9	Sample Date	12/5/2007	3/4/2008	6/3/2008	9/4/2008			
	Sample Result	0.0534	0.0329	0.0383	0.0548			0.0449
	Sample Date	12/5/2007	3/4/2008	6/3/2008	9/4/2008			
Stage 1 Site #10	Sample Result	0.0221	0.0095	0.0133	0.0218			0.0167
	Sample Date	12/5/2007	3/4/2008	6/3/2008	9/4/2008			
	Sample Result	0.0525	0.0307	0.0413	0.0063			0.0327
Stage 1 Site #11	Sample Date	12/5/2007	3/4/2008	6/3/2008	9/4/2008			
	Sample Result	0.0637	0.0153	0.0186	0.0364			0.0335
	Sample Date							
Stage 1 Site #12	Sample Result							
	Sample Date							
	Sample Result							
	Sample Date							
	Sample Result							
	Sample Date							
	Sample Result							
	Sample Date							
	Sample Result							
	Sample Date							
	Sample Result							
	Sample Date							
	Sample Result							
	Sample Date							
	Sample Result							

*Verify that site IDs for IDSE standard monitoring sites match the site IDs in your Standard Monitoring Plan.
Attach additional sheets as needed for IDSE standard monitoring results.

IDSE Report for Standard Monitoring

III. MONITORING RESULTS (Continued)*

G. Stage 1 DBPR Compliance Monitoring Results - HAA5

Site ID ¹	Data Type	HAA5 (mg/L)				LRAA
		12/5/2007	3/4/2008	6/3/2008	9/4/2008	
Stage 1 site #1	Sample Date	12/5/2007	3/4/2008	6/3/2008	9/4/2008	
	Sample Result	0.0000	0.0000	0.0012	0.0000	0.0003
Stage 1 site #2	Sample Date	12/5/2007	3/4/2008	6/3/2008	9/4/2008	
	Sample Result	0.0000	0.0000	0.0000	0.0000	0.0000
Stage 1 site #3	Sample Date	12/5/2007	3/4/2008	6/3/2008	9/4/2008	
	Sample Result	0.0000	0.0000	0.0007	0.0000	0.0002
Stage 1 site #4	Sample Date	12/5/2007	3/4/2008	6/3/2008	9/4/2008	
	Sample Result	0.0000	0.0000	0.0000	0.0000	0.0000
Stage 1 site #5	Sample Date	12/5/2007	3/4/2008	6/3/2008	9/4/2008	
	Sample Result	0.0000	0.0000	0.0000	0.0000	0.0000
Stage 1 site #6	Sample Date	12/5/2007	3/4/2008	6/3/2008	9/4/2008	
	Sample Result	0.0000	0.0000	0.0008	0.0000	0.0002
Stage 1 site #7	Sample Date	12/5/2007	3/4/2008	6/3/2008	9/4/2008	
	Sample Result	0.0000	0.0000	0.0019	0.0000	0.0005
Stage 1 site #8	Sample Date	12/5/2007	3/4/2008	6/3/2008	9/4/2008	
	Sample Result	0.0000	0.0000	0.0008	0.0000	0.0002

¹Verify that site IDs for IDSE standard monitoring sites match the site IDs in your Standard Monitoring Plan.

Attach additional sheets as needed for IDSE standard monitoring results.

IDSE Report for Standard Monitoring

III. MONITORING RESULTS (Continued)* G. Stage 1 DBPR Compliance Monitoring Results - HAAS

Site ID ¹	Data Type	HAAS (mg/L)				LRAA
		12/5/2007	3/4/2008	6/3/2008	9/4/2008	
Stage 1 site #9	Sample Date	12/5/2007	3/4/2008	6/3/2008	9/4/2008	
	Sample Result	0.0309	0.0194	0.0194	0.0178	0.0219
Stage 1 site #10	Sample Date	12/5/2007	3/4/2008	6/3/2008	9/4/2008	
	Sample Result	0.0260	0.0120	0.0163	0.0153	0.0174
Stage 1 site #11	Sample Date	12/5/2007	3/4/2008	6/3/2008	9/4/2008	
	Sample Result	0.0248	0.0234	0.0247	0.0000	0.0182
Stage 1 site #12	Sample Date	12/5/2007	3/4/2008	6/3/2008	9/4/2008	
	Sample Result	0.0367	0.0163	0.0143	0.0180	0.0213
	Sample Date					
	Sample Result					#DIV/0!
	Sample Date					
	Sample Result					#DIV/0!
	Sample Date					
	Sample Result					#DIV/0!
	Sample Date					
	Sample Result					#DIV/0!

¹Verify that site IDs for IDSE standard monitoring sites match the site IDs in your Standard Monitoring Plan.

Attach additional sheets as needed for IDSE standard monitoring results.

IDSE Report for Standard Monitoring

IV. JUSTIFICATION OF STAGE 2 DBPR COMPLIANCE MONITORING SITES*

Stage 2 Compliance Monitoring Site ID	Site Type	Justification
Standard Monitoring site # 3	<input checked="" type="checkbox"/> Highest TTHM <input type="checkbox"/> Highest HAA5 <input type="checkbox"/> Stage 1 DBPR	This site had the highest TTHM LRAA among all of the sites.
Standard Monitoring site # 7	<input type="checkbox"/> Highest TTHM <input checked="" type="checkbox"/> Highest HAA5 <input type="checkbox"/> Stage 1 DBPR	This site had the highest HAA5 LRAA of all of the sites.
Stage 1 site #9	<input type="checkbox"/> Highest TTHM <input type="checkbox"/> Highest HAA5 <input checked="" type="checkbox"/> Stage 1 DBPR	This site had the highest HAA5 LRAA of all of the stage 1 sites.
Standard monitoring site # 2	<input checked="" type="checkbox"/> Highest TTHM <input type="checkbox"/> Highest HAA5 <input type="checkbox"/> Stage 1 DBPR	This site had the 2nd highest TTHM LRAA of all of the sites and had not been used yet.
	<input type="checkbox"/> Highest TTHM <input type="checkbox"/> Highest HAA5 <input type="checkbox"/> Stage 1 DBPR	
	<input type="checkbox"/> Highest TTHM <input type="checkbox"/> Highest HAA5 <input type="checkbox"/> Stage 1 DBPR	
	<input type="checkbox"/> Highest TTHM <input type="checkbox"/> Highest HAA5 <input type="checkbox"/> Stage 1 DBPR	
	<input type="checkbox"/> Highest TTHM <input type="checkbox"/> Highest HAA5 <input type="checkbox"/> Stage 1 DBPR	
	<input type="checkbox"/> Highest TTHM <input type="checkbox"/> Highest HAA5 <input type="checkbox"/> Stage 1 DBPR	

Attach additional copies of this sheet if you need more room.

IDSE Report for Standard Monitoring

V. PEAK HISTORICAL MONTH AND STAGE 2 DBPR COMPLIANCE MONITORING SCHEDULE

A. Peak Historical Month* October

B. Is Your Peak Historical Month the Same as in Your IDSE Standard Monitoring Plan?

Yes No

If no, explain how you selected your new peak historical month (attach additional sheets if needed)

Our original peak historical month was August. After conducting the IDSE standard monitoring the results showed that October actually had higher THM's.

After reviewing the data it was determine that October would be our new Peak Historical Month.

C. Proposed Stage 2 DBPR Compliance Monitoring Schedule*

Stage 2 Compliance Monitoring Site ID	Projected Sampling Date (date or week) ¹			
	period 1	period 2	period 3	period 4
SM site # 3	wk 1 January	wk 1 April	wk 1 July	wk 1 October
SM site # 7	wk 1 January	wk 1 April	wk 1 July	wk 1 October
Stage 1 #9	wk 1 January	wk 1 April	wk 1 July	wk 1 October
SM site # 2	wk 1 January	wk 1 April	wk 1 July	wk 1 October

¹ period = monitoring period. Complete for the number of monitoring periods from Section II.C.

Attach additional copies of this sheet if you need more room.

VI. DISTRIBUTION SYSTEM SCHEMATIC*

ATTACH a schematic of your distribution system if it has changed since you submitted your Standard Monitoring Plan.

VII. ATTACHMENTS

- ~ Additional sheets for explaining how and why you deviated from your standard monitoring plan (Section III).
- ~ Additional sheets for Standard Monitoring Results (Section III). **REQUIRED** if you are a subpart H system serving **more than 49,999 people** or a ground water system serving **more than 499,999 people**.
- ~ Additional sheets for Stage 2 DBPR Compliance Monitoring Sites (Section IV). **REQUIRED** if you are a subpart H system serving **more than 249,999 people**.
- ~ Additional sheets for explaining how you selected the peak historical month (Section V).
- ~ Additional sheets for proposed Stage 2 DBPR peak historical month and compliance monitoring schedule (Section V). **REQUIRED** if you are a subpart H system serving **more than 249,999 people**.
- ~ Distribution system schematic* (Section VI). **REQUIRED if it has changed from your approved IDSE standard monitoring plan.**
- ~ Compliance calculation procedures (for Stage 2 Compliance Monitoring Plan).

Total Number of Pages in Your Report: 13 plus Schematic

Note: Fields with an asterisk (*) are required by the Stage 2 DBPR.

LEGEND

OUTSIDE OF ISSAQUAH WATER SERVICE AREA

S1DBPR SAMPLING SITES

- FOREST HAVEN RESERVOIR
- WILDBOON PUMP STATION
- STYACRE RESERVOIR
- 2ND AVE SE SAMPLE STAND
- DOTY SAMPLE STAND
- 1801 NW SAMMARSH RD (HYD. #703)
- COUGAR RIDGE RESERVOIR
- TERRA II PUMP STATION
- MONTRIEUX SAMPLE STAND
- LAKEMONT & NEWPORT WAY - SAMPLE STAND
- 752 RESERVOIR
- 15TH AVE NE SAMPLE STAND

S2DBPR SAMPLING SITES

- 16TH AVE & NEWPORT WAY SAMPLE STAND
- NE NATALE WAY SAMPLE STAND
- SUMMIT RESERVOIR SAMPLE STAND
- 1100 BLK. 6TH AVE SE
- 2105 BIG TREE DRIVE
- SAMPLE STAND 20th COURT (NEXT TO PARK)
- CENTRAL PARK PUMP STATION
- MT HOOD PUMP STATION

WATER ENTRY SOURCES

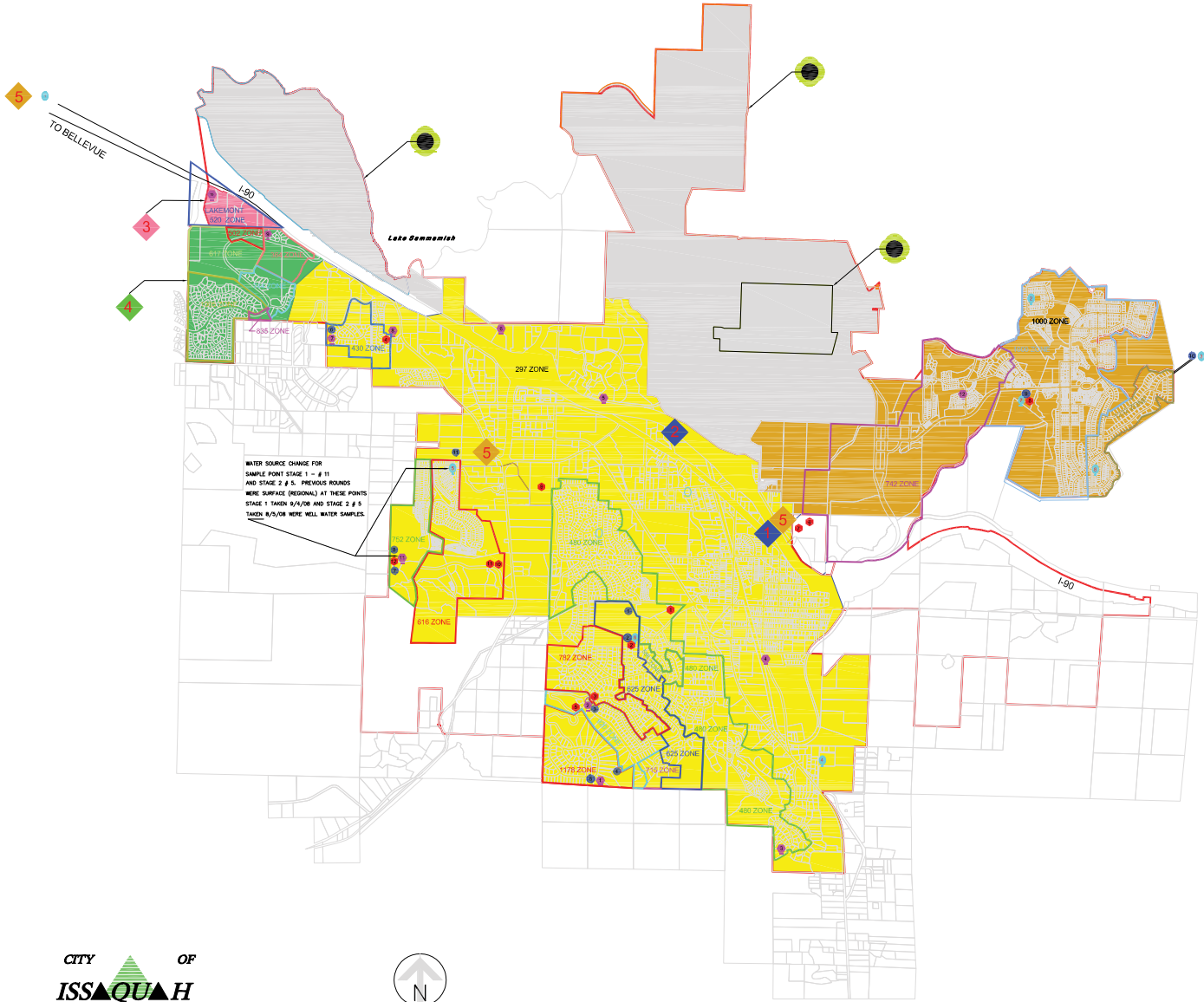
- REGION WELLS
- CLEAN WELLS - WATER IS BLENDED
- LAKEMONT SUBPART II (CITY OF BELLEVUE CONNECTION)
- MONTRIEUX SUBPART II (CITY OF BELLEVUE CONNECTION)
- REGIONAL CONNECTION SUBPART II

RESERVOIR SITES

- CEMETERY RESERVOIR
- MT. HOOD RESERVOIR
- WILDBOON RESERVOIR
- HIGHWOOD RESERVOIR
- FOREST HAVEN RESERVOIR
- COUGAR RIDGE RESERVOIR
- TALUS 616 RESERVOIR
- TALUS 752 RESERVOIR
- HIGHLANDS CENTRAL PARK RESERVOIR
- HIGHLANDS SUMMIT RESERVOIR
- WESTSIDE RESERVOIR

PUMP STATIONS

- MT. PARK
- MT. HOOD
- WILDBOON
- TERRA II
- FOREST HAVEN
- HOLLY ST I
- HOLLY ST II
- CENTRAL PARK
- 12TH AVE
- TALUS DRIVE I
- TALUS DRIVE II
- 616



SCALE 1" = 1000'
DRAWN BY RNB
12/19/08

STAGE 2 DISINFECTANTS AND BYPRODUCTS PLAN/ IDSE MONITORING REPORT

