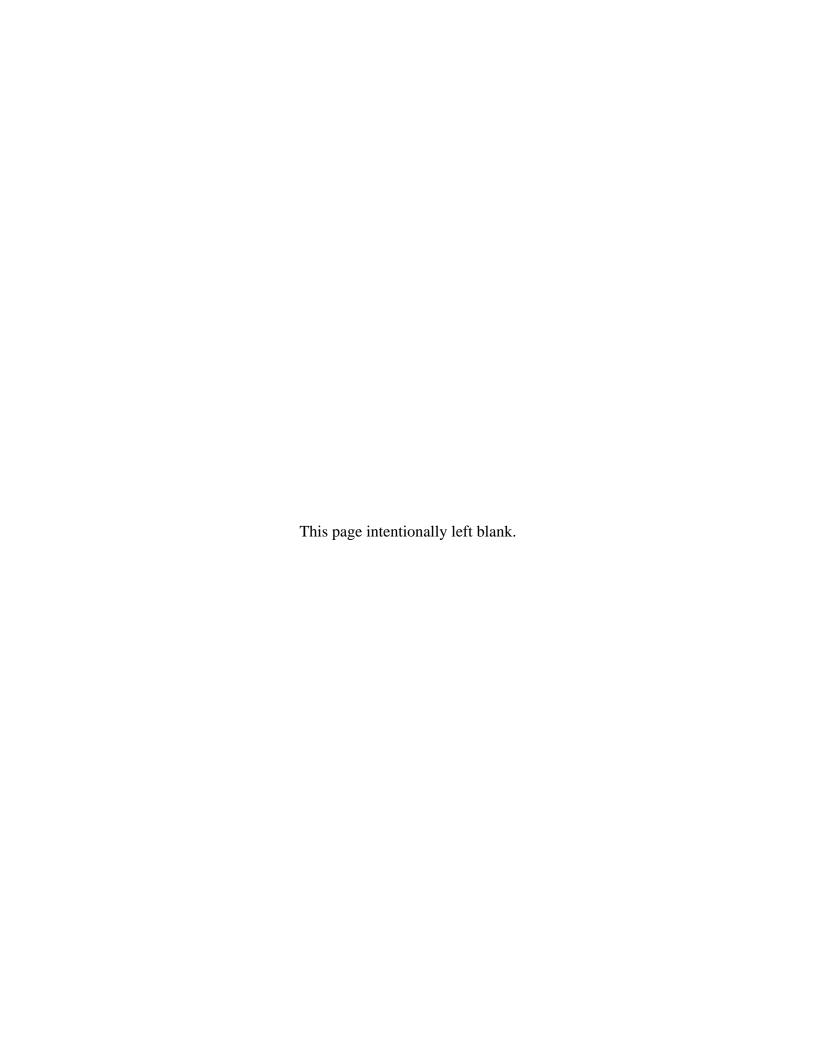


## INITIAL DISTRIBUTION SYSTEM EVALUATION GUIDANCE MANUAL

# FOR THE FINAL STAGE 2 DISINFECTANTS AND DISINFECTION BYPRODUCTS RULE

### **APPENDIX E**

http://www.epa.gov/safewater/disinfection/stage2/compliance.html



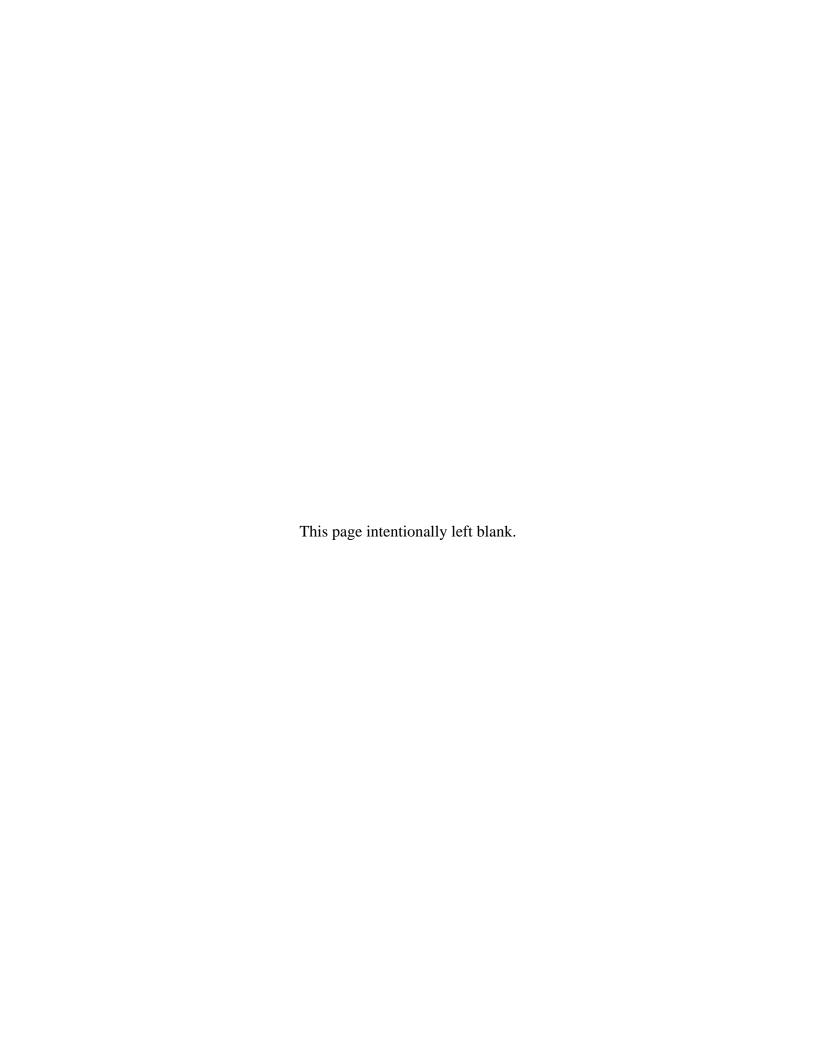
### Appendix E

Example IDSE Existing Monitoring Results System Specific Study Plan and Report for a Surface Water System Serving 40,000 People

This appendix is provided as an example IDSE study plan and report for a Subpart H system serving 40,000 people and opting to complete a System Specific Study (SSS) using existing monitoring results. The system in this example has a surface water intake with a treatment plant and two additional wells that are each disinfected at the well locations. In all, the system has three treatment plants. Because the water blends in the distribution system, the entire system is categorized as a Subpart H system.

Since the system has three treatment plants, it is required to collect four samples per treatment plant each quarter for Stage 1 DBPR compliance. The system therefore satisfies the minimum number of sampling locations required for an Existing Monitoring Results SSS. If the system submits two years of its Stage 1 DBPR compliance data, it also satisfies the requirement for minimum number of TTHM and HAA5 samples. The Stage 1 DBPR sampling locations are representative of the distribution system, so the system is not proposing to do any additional monitoring and is submitting both their IDSE Plan and their IDSE Report by their plan deadline.

Chapter 5 presents detailed guidance on the requirements for performing an existing monitoring results SSS; selection of Stage 2 compliance monitoring locations; and preparing the existing monitoring results IDSE report. The application of the basic guidance on the use of existing monitoring results to select locations meeting the standard monitoring location criteria and the use of the data to select Stage 2 compliance monitoring locations is shown in this example.



| Form 2: Exis          | sting Monitorir          | ng Re   | sults SSS Plan Page 1 of 16   |
|-----------------------|--------------------------|---|-------------------------------|
| I. GENERAL INFORM     | MATION                   |   |                               |
| A. PWS Information    | *                        |   | B. Date Submitted*            |
| PWSID:                | US0000000                |   | Sept. 1, 2007                 |
| PWS Name:             | City of Magnolia         |   |                               |
| PWS Address:          | PO Box 1234              | _   |                               |
| City:                 | Magnolia City            |   | State: US Zip: 11111          |
| Population Served:    | 40,000                   |   |                               |
|                       |                          |   |                               |
| System Type:          | Source Water Type:       | Buying /  | Selling Relationships:        |
| ⊠ CWS                 | ⊠ Subpart H              | □ Cons  | secutive System               |
| □ NTNCWS              | □ Ground                 | □ Who   | lesale System                 |
|                       |                          | Neith     Neith | ner                           |
| C. PWS Operations     |                          |   |                               |
| Residual Disinfectant | Type:   □ Chlorine □     | Chloramii   | nes □ Other                   |
|                       |                          |   | WUDI <u>2</u> GroundPurchased |
| D. Contact Person*    |                          |   |                               |
| Name:                 | Ms. Mary Flower, P.E.    |   |                               |
| Title:                | City Engineer            |   |                               |
| Phone #:              | 234-555-1111             |   | Fax #: 234-555-2222           |
| E-mail:               | MFlower@ci.magnolia.     | .us   |                               |
|                       |                          |   |                               |
| II. SSS REQUIREME     | NTS*                     |   |                               |
| A. Minimum Numbe      | r of Monitoring Location | ons <u>12</u>   |                               |
| B. Minimum Numbe      | r of Required Samples    |   |                               |
| <u>72</u> TTHM        | <u>72</u> HA             | A5  |                               |
|                       |                          |   |                               |
| C. IDSE Schedule      |                          |   |                               |
| □ Schedule 1 □        | Schedule 2 ⊠ Schedu      | ıle 3 □   | Schedule 4                    |
|                       |                          |   |                               |

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### Form 2: Existing Monitoring Results SSS Plan Page 2 of 16 **III. PEAK HISTORICAL MONTH** Peak Historical Month\* July B. If Multiple Sources, Source Used to Determine Peak Historical Month (write "N/A" if only one source in your system) Surface water source C. Peak Historical Month Based On (check as many as needed) ☐ High HAA5 ☑ High TTHM If you used other information to select your peak historical month, explain here (attach additional sheets if needed): IV. PREVIOUSLY COLLECTED MONITORING RESULTS\* A. Where were your TTHM and HAA5 samples analyzed? □ In-House Is your in-house laboratory certified? ☐ Yes □ No □ Certified Laboratory Name of certified laboratory: ACME Analytical Services What method(s) was used to analyze your TTHM and HAA5 samples? TTHM HAA5 ☐ EPA 502.2 ☑ EPA 552.1 ☐ EPA 524.2 ☐ EPA 552.2 ☑ EPA 551.1 □ EPA 552.3 □ SM 6251 B

### IV. PREVIOUSLY COLLECTED MONITORING RESULTS (Continued)\*

### C. TTHM Results

| Site ID <sup>1</sup>             | 12-<br>month<br>period | Data<br>Qualifies<br>(yes/no) | Data Type     |         |         | TTHM    | (mg/L)   |  | LRAA  |
|----------------------------------|------------------------|-------------------------------|---------------|---------|---------|---------|----------|--|-------|
| #1 - Stage 1 SW<br>Plant Average | Jan 05-<br>Jan 06      | Yes                           | Sample Date   | 1/13/05 | 4/13/05 | 7/13/05 | 10/12/05 |  |       |
| Residence Time                   | Jan 00                 |                               | Sample Result | 0.028   | 0.034   | 0.035   | 0.030    |  | 0.032 |
| #1 - Stage 1 SW<br>Plant Average | Jan 06-<br>Jan 07      | Yes                           | Sample Date   | 1/11/06 | 4/12/06 | 7/12/06 | 10/11/06 |  |       |
| Residence Time                   | Jan 07                 |                               | Sample Result | 0.024   | 0.033   | 0.037   | 0.031    |  | 0.031 |
| #1 - Stage 1 SW                  | Jan 07-                | Yes                           | Sample Date   | 1/10/07 | 4/11/07 | 7/11/07 |          |  |       |
| Plant Average<br>Residence Time  | July 07                |                               | Sample Result | 0.029   | 0.034   | 0.036   |          |  | 0.033 |
| #2 -Stage 1 SW                   | Jan 05-<br>Jan 06      | Yes                           | Sample Date   | 1/13/05 | 4/13/05 | 7/13/05 | 10/12/05 |  |       |
| Average<br>Residence Time        | Jan 06                 |                               | Sample Result | 0.049   | 0.056   | 0.063   | 0.057    |  | 0.056 |
| #2 - Stage 1 SW                  | Jan 06-<br>Jan 07      | Yes                           | Sample Date   | 1/11/06 | 4/12/06 | 7/12/06 | 10/11/06 |  |       |
| Average<br>Residence Time        | Jan 07                 |                               | Sample Result | 0.045   | 0.052   | 0.060   | 0.054    |  | 0.053 |
| #2 - Stage 1 SW                  | Jan 07-<br>July 07     | Yes                           | Sample Date   | 1/10/07 | 4/11/07 | 7/11/07 |          |  |       |
| Average<br>Residence Time        | July 07                |                               | Sample Result | 0.046   | 0.055   | 0.063   |          |  | 0.055 |

<sup>&</sup>lt;sup>1</sup> Verify that site IDs match the site IDs on your distribution system schematic.

### IV. PREVIOUSLY COLLECTED MONITORING RESULTS (Continued)\*

### C. TTHM Results

| Site ID <sup>1</sup>      | 12-<br>month<br>period | Data<br>Qualifies<br>(yes/no) | lifies        |         |         |         |          |  |       |
|---------------------------|------------------------|-------------------------------|---------------|---------|---------|---------|----------|--|-------|
| #3 - Stage 1 SW           | Jan 05-                | Yes                           | Sample Date   | 1/13/05 | 4/13/05 | 7/13/05 | 10/12/05 |  |       |
| Average<br>Residence Time | Jan 06                 |                               | Sample Result | 0.038   | 0.047   | 0.065   | 0.052    |  | 0.050 |
| #3 - Stage 1 SW           | Jan 06-                | Yes                           | Sample Date   | 1/11/06 | 4/12/06 | 7/12/06 | 10/11/06 |  |       |
| Average<br>Residence Time | Jan 07                 |                               | Sample Result | 0.040   | 0.046   | 0.068   | 0.037    |  | 0.048 |
| #3 - Stage 1 SW           | Jan 07-                | Yes                           | Sample Date   | 1/10/07 | 4/11/07 | 7/11/07 |          |  |       |
| Average<br>Residence Time | July 07                |                               | Sample Result | 0.036   | 0.042   | 0.070   |          |  | 0.049 |
| #4 -Stage 1 SW            | Jan 05-                | Yes                           | Sample Date   | 1/13/05 | 4/13/05 | 7/13/05 | 10/12/05 |  |       |
| Maximum<br>Residence Time | Jan 06                 |                               | Sample Result | 0.032   | 0.060   | 0.074   | 0.062    |  | 0.057 |
| #4 - Stage 1 SW           | Jan 06-                | Yes                           | Sample Date   | 1/11/06 | 4/12/06 | 7/12/06 | 10/11/06 |  |       |
| Maximum<br>Residence Time | Jan 07                 |                               | Sample Result | 0.042   | 0.069   | 0.082   | 0.071    |  | 0.066 |
| #4 - Stage 1 SW           | Jan 07-                | Yes                           | Sample Date   | 1/10/07 | 4/11/07 | 7/11/07 |          |  |       |
| Maximum<br>Residence Time | July 07                |                               | Sample Result | 0.044   | 0.059   | 0.081   |          |  | 0.061 |

<sup>&</sup>lt;sup>1</sup> Verify that site IDs match the site IDs on your distribution system schematic.

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### IV. PREVIOUSLY COLLECTED MONITORING RESULTS (Continued)\*

### C. TTHM Results

| Site ID <sup>1</sup>             | 12-<br>month<br>period | Data<br>Qualifies<br>(yes/no) | Data Type     |         |         | TTHM    | (mg/L)   | LRAA  |
|----------------------------------|------------------------|-------------------------------|---------------|---------|---------|---------|----------|-------|
| #5 - Stage 1<br>Well 1 Average   | Jan 05-<br>Jan 06      | Yes                           | Sample Date   | 1/13/05 | 4/13/05 | 7/13/05 | 10/12/05 |       |
| Residence Time                   | Jan 06                 |                               | Sample Result | 0.038   | 0.025   | 0.030   | 0.032    | 0.031 |
| #5 - Stage 1                     | Jan 06-<br>Jan 07      | Yes                           | Sample Date   | 1/11/06 | 4/12/06 | 7/12/06 | 10/11/06 |       |
| Well 1 Average<br>Residence Time | Jan 07                 |                               | Sample Result | 0.026   | 0.031   | 0.030   | 0.024    | 0.028 |
| #5 - Stage 1                     | Jan 07-                | Yes                           | Sample Date   | 1/10/07 | 4/11/07 | 7/11/07 |          |       |
| Well 1 Average<br>Residence Time | July 07                |                               | Sample Result | 0.011   | 0.027   | 0.032   |          | 0.023 |
| #6 - Stage 1                     | Jan 05-                | Yes                           | Sample Date   | 1/13/05 | 4/13/05 | 7/13/05 | 10/12/05 |       |
| Well 1 Average<br>Residence Time | Jan 06                 |                               | Sample Result | 0.032   | 0.051   | 0.058   | 0.042    | 0.046 |
| #6 - Stage 1                     | Jan 06-                | Yes                           | Sample Date   | 1/11/06 | 4/12/06 | 7/12/06 | 10/11/06 |       |
| Well 1 Average<br>Residence Time | Jan 07                 |                               | Sample Result | 0.024   | 0.046   | 0.050   | 0.049    | 0.042 |
| #6 - Stage 1                     | Jan 07-                | Yes                           | Sample Date   | 1/10/07 | 4/11/07 | 7/11/07 |          |       |
| Well 1 Average<br>Residence Time | July 07                |                               | Sample Result | 0.030   | 0.041   | 0.051   |          | 0.041 |

<sup>&</sup>lt;sup>1</sup> Verify that site IDs match the site IDs on your distribution system schematic.

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### IV. PREVIOUSLY COLLECTED MONITORING RESULTS (Continued)\*

### C. TTHM Results

| Site ID <sup>1</sup>             | 12-<br>month<br>period | Data<br>Qualifies<br>(yes/no) | Data Type     |         |         | TTHM    | (mg/L)   |  |  |       |  |  |  |
|----------------------------------|------------------------|-------------------------------|---------------|---------|---------|---------|----------|--|--|-------|--|--|--|
| #7 -Stage 1 Well                 | Jan 05-                | Yes                           | Sample Date   | 1/13/05 | 4/13/05 | 7/13/05 | 10/12/05 |  |  |       |  |  |  |
| 1 Average<br>Residence Time      | Jan 06                 |                               | Sample Result | 0.031   | 0.037   | 0.045   | 0.033    |  |  | 0.037 |  |  |  |
| #7 - Stage 1                     | Jan 06-                | Yes                           | Sample Date   | 1/11/06 | 4/12/06 | 7/12/06 | 10/11/06 |  |  |       |  |  |  |
| Well 1 Average<br>Residence Time | Jan 07                 |                               | Sample Result | 0.019   | 0.028   | 0.038   | 0.051    |  |  | 0.034 |  |  |  |
| #7 Stage 1 Well                  | Jan 07-                | Yes                           | Sample Date   | 1/10/07 | 4/11/07 | 7/11/07 |          |  |  |       |  |  |  |
| 1 Average<br>Residence Time      | July 07                |                               | Sample Result | 0.022   | 0.035   | 0.046   |          |  |  | 0.034 |  |  |  |
| #8 - Stage 1                     | Jan 05-                | Yes                           | Sample Date   | 1/13/05 | 4/13/05 | 7/13/05 | 10/12/05 |  |  |       |  |  |  |
| Well 1 Maximum<br>Residence Time | Jan 06                 |                               | Sample Result | 0.038   | 0.051   | 0.075   | 0.073    |  |  | 0.059 |  |  |  |
| #8 - Stage 1                     | Jan 06-                | Yes                           | Sample Date   | 1/11/06 | 4/12/06 | 7/12/06 | 10/11/06 |  |  |       |  |  |  |
| Well 1 Maximum<br>Residence Time | Jan 07                 |                               | Sample Result | 0.049   | 0.064   | 0.075   | 0.072    |  |  | 0.065 |  |  |  |
| #8 - Stage 1                     | Jan 07-                | Yes                           | Sample Date   | 1/10/07 | 4/11/07 | 7/11/07 |          |  |  |       |  |  |  |
| Well 1 Maximum<br>Residence Time | July 07                |                               | Sample Result | 0.036   | 0.060   | 0.080   |          |  |  | 0.059 |  |  |  |

<sup>&</sup>lt;sup>1</sup> Verify that site IDs match the site IDs on your distribution system schematic.

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### IV. PREVIOUSLY COLLECTED MONITORING RESULTS (Continued)\*

#### C. TTHM Results

| Site ID <sup>1</sup>             | 12-<br>month<br>period | Data<br>Qualifies<br>(yes/no) | Data Type     |         |         | ТТНМ    | (mg/L)   | LRAA  |
|----------------------------------|------------------------|-------------------------------|---------------|---------|---------|---------|----------|-------|
| #9 - Stage 1                     | Jan 05-                | Yes                           | Sample Date   | 1/14/05 | 4/14/05 | 7/14/05 | 10/13/05 |       |
| Well 2 Average<br>Residence Time | Jan 06                 |                               | Sample Result | 0.022   | 0.029   | 0.026   | 0.033    | 0.028 |
| #9 - Stage 1                     | Jan 06-<br>Jan 07      | Yes                           | Sample Date   | 1/12/06 | 4/13/06 | 7/13/06 | 10/12/06 |       |
| Well 2 Average<br>Residence Time | Jan 07                 |                               | Sample Result | 0.024   | 0.022   | 0.031   | 0.026    | 0.026 |
| #9 - Stage 1                     | Jan 07-                | Yes                           | Sample Date   | 1/11/07 | 4/12/07 | 7/12/07 |          |       |
| Well 2 Average<br>Residence Time | July 07                |                               | Sample Result | 0.010   | 0.021   | 0.023   |          | 0.018 |
| #10 - Stage 1                    | Jan 05-                | Yes                           | Sample Date   | 1/14/05 | 4/14/05 | 7/14/05 | 10/13/05 |       |
| Well 2 Average<br>Residence Time | Jan 06                 |                               | Sample Result | 0.024   | 0.035   | 0.045   | 0.042    | 0.037 |
| #10 - Stage 1                    | Jan 06-                | Yes                           | Sample Date   | 1/12/06 | 4/13/06 | 7/13/06 | 10/12/06 |       |
| Well 2 Average<br>Residence Time | Jan 07                 |                               | Sample Result | 0.016   | 0.043   | 0.060   | 0.051    | 0.043 |
| #10 - Stage 1                    | Jan 07-                | Yes                           | Sample Date   | 1/11/07 | 4/12/07 | 7/12/07 |          |       |
| Well 2 Average<br>Residence Time | July 07                |                               | Sample Result | 0.011   | 0.052   | 0.083   |          | 0.049 |

<sup>&</sup>lt;sup>1</sup> Verify that site IDs match the site IDs on your distribution system schematic.

### IV. PREVIOUSLY COLLECTED MONITORING RESULTS (Continued)\*

### C. TTHM Results

| Site ID <sup>1</sup>             | 12-<br>month<br>period | Data<br>Qualifies<br>(yes/no) | Data Type     | Type TTHM (mg/L) |         |         |          |  |  |       |
|----------------------------------|------------------------|-------------------------------|---------------|------------------|---------|---------|----------|--|--|-------|
| #11 - Stage 1                    | Jan 05-<br>Jan 06      | Yes                           | Sample Date   | 1/14/05          | 4/14/05 | 7/14/05 | 10/13/05 |  |  |       |
| Well 2 Average<br>Residence Time | Januo                  |                               | Sample Result | 0.027            | 0.032   | 0.068   | 0.059    |  |  | 0.047 |
| #11 - Stage 1                    | Jan 06-<br>Jan 07      | Yes                           | Sample Date   | 1/12/06          | 4/13/06 | 7/13/06 | 10/12/06 |  |  |       |
| Well 2 Average<br>Residence Time | Jan 07                 |                               | Sample Result | 0.021            | 0.047   | 0.060   | 0.045    |  |  | 0.043 |
| #11 - Stage 1                    | Jan 07-                | Yes                           | Sample Date   | 1/11/07          | 4/12/07 | 7/12/07 |          |  |  |       |
| Well 2 Average<br>Residence Time | July 07                |                               | Sample Result | 0.018            | 0.025   | 0.065   |          |  |  | 0.036 |
| #12 - Stage 1                    | Jan 05-                | Yes                           | Sample Date   | 1/14/05          | 4/14/05 | 7/14/05 | 10/13/05 |  |  |       |
| Well 2 Maximum<br>Residence Time | Jan 06                 |                               | Sample Result | 0.068            | 0.073   | 0.085   | 0.074    |  |  | 0.075 |
| #12 - Stage 1<br>Well 2 Maximum  | Jan 06-                | Yes                           | Sample Date   | 1/12/06          | 4/13/06 | 7/13/06 | 10/12/06 |  |  |       |
| Residence Time                   | Jan 07                 |                               | Sample Result | 0.069            | 0.077   | 0.089   | 0.078    |  |  | 0.078 |
| #12 - Stage 1                    | Jan 07-                | Yes                           | Sample Date   | 1/11/07          | 4/12/07 | 7/12/07 |          |  |  |       |
| Well 2 Maximum<br>Residence Time | July 07                |                               | Sample Result | 0.067            | 0.075   | 0.086   |          |  |  | 0.076 |

<sup>&</sup>lt;sup>1</sup> Verify that site IDs match the site IDs on your distribution system schematic.

### IV. PREVIOUSLY COLLECTED MONITORING RESULTS (Continued)\*

### D. HAA5 Results

| Site ID <sup>1</sup>             | 12-<br>month<br>period | Data<br>Qualifies<br>(yes/no) | Data Type     | ype HAA5 (mg/L) |         |         |          |  |  | LRAA  |
|----------------------------------|------------------------|-------------------------------|---------------|-----------------|---------|---------|----------|--|--|-------|
| #1 - Stage 1 SW<br>Plant Average | Jan 05-<br>Jan 06      | Yes                           | Sample Date   | 1/13/05         | 4/13/05 | 7/13/05 | 10/12/05 |  |  |       |
| Residence Time                   | Jan 06                 |                               | Sample Result | 0.028           | 0.034   | 0.035   | 0.030    |  |  | 0.032 |
| #1 - Stage 1 SW<br>Plant Average | Jan 06-<br>Jan 07      | Yes                           | Sample Date   | 1/11/06         | 4/12/06 | 7/12/06 | 10/11/06 |  |  |       |
| Residence Time                   | Jan 07                 |                               | Sample Result | 0.024           | 0.033   | 0.037   | 0.031    |  |  | 0.031 |
| #1 - Stage 1 SW                  | Jan 07-                | Yes                           | Sample Date   | 1/10/07         | 4/11/07 | 7/11/07 |          |  |  |       |
| Plant Average<br>Residence Time  | July 07                |                               | Sample Result | 0.029           | 0.034   | 0.036   |          |  |  | 0.033 |
| #2 -Stage 1 SW                   | Jan 05-                | Yes                           | Sample Date   | 1/13/05         | 4/13/05 | 7/13/05 | 10/12/05 |  |  |       |
| Average<br>Residence Time        | Jan 06                 |                               | Sample Result | 0.049           | 0.059   | 0.063   | 0.057    |  |  | 0.057 |
| #2 - Stage 1 SW                  | Jan 06-                | Yes                           | Sample Date   | 1/11/06         | 4/12/06 | 7/12/06 | 10/11/06 |  |  |       |
| Average<br>Residence Time        | Jan 07                 |                               | Sample Result | 0.045           | 0.052   | 0.060   | 0.054    |  |  | 0.053 |
| #2 - Stage 1 SW                  | Jan 07-                | Yes                           | Sample Date   | 1/10/07         | 4/11/07 | 7/11/07 |          |  |  |       |
| Average<br>Residence Time        | July 07                |                               | Sample Result | 0.046           | 0.055   | 0.063   |          |  |  | 0.055 |

<sup>&</sup>lt;sup>1</sup> Verify that site IDs match the site IDs on your distribution system schematic.

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### IV. PREVIOUSLY COLLECTED MONITORING RESULTS (Continued)\*

#### D. HAA5 Results

| Site ID <sup>1</sup>       | 12-<br>month<br>period | Data<br>Qualifies<br>(yes/no) | Data Type     |         |         | HAA5    | (mg/L)   |  | LRAA  |
|----------------------------|------------------------|-------------------------------|---------------|---------|---------|---------|----------|--|-------|
| #3 -Stage 1 SW             | Jan 05-<br>Jan 06      | Yes                           | Sample Date   | 1/13/05 | 4/13/05 | 7/13/05 | 10/12/05 |  |       |
| Average<br>Residence Time  | Jan 06                 |                               | Sample Result | 0.022   | 0.035   | 0.052   | 0.031    |  | 0.035 |
| #3 - Stage 1 SW            | Jan 06-                | Yes                           | Sample Date   | 1/11/06 | 4/12/06 | 7/12/06 | 10/11/06 |  |       |
| Average<br>Residence Time  | Jan 07                 |                               | Sample Result | 0.024   | 0.041   | 0.059   | 0.037    |  | 0.040 |
| #3 -Stage 1 SW             | Jan 07-                | Yes                           | Sample Date   | 1/10/07 | 4/11/07 | 7/11/07 |          |  |       |
| Average<br>Residence Time  | July 07                |                               | Sample Result | 0.017   | 0.045   | 0.065   |          |  | 0.042 |
| #4 -Stage 1 SW             | Jan 05-                | Yes                           | Sample Date   | 1/13/05 | 4/13/05 | 7/13/05 | 10/12/05 |  |       |
| Maximum<br>Residence Time  | Jan 06                 |                               | Sample Result | 0.039   | 0.049   | 0.058   | 0.041    |  | 0.047 |
| #4 - Stage 1 SW            | Jan 06-                | Yes                           | Sample Date   | 1/11/06 | 4/12/06 | 7/12/06 | 10/11/06 |  |       |
| Maximum<br>Residence Time  | Jan 07                 |                               | Sample Result | 0.023   | 0.044   | 0.052   | 0.039    |  | 0.040 |
| #4 - Stage 1 SW<br>Maximum | Jan 07-                | Yes                           | Sample Date   | 1/10/07 | 4/11/07 | 7/11/07 |          |  |       |
| Residence Time             | July 07                |                               | Sample Result | 0.027   | 0.051   | 0.060   |          |  | 0.046 |

<sup>&</sup>lt;sup>1</sup> Verify that site IDs match the site IDs on your distribution system schematic.

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### IV. PREVIOUSLY COLLECTED MONITORING RESULTS (Continued)\*

### D. HAA5 Results

| Site ID <sup>1</sup>             | 12-<br>month<br>period | Data<br>Qualifies<br>(yes/no) | Data Type     | Data Type HAA5 (mg/L) |         |         |          |  |       |
|----------------------------------|------------------------|-------------------------------|---------------|-----------------------|---------|---------|----------|--|-------|
| #5 - Stage 1                     | Jan 05-<br>Jan 06      | Yes                           | Sample Date   | 1/13/05               | 4/13/05 | 7/13/05 | 10/12/05 |  |       |
| Well 1 Average<br>Residence Time | Jan 06                 |                               | Sample Result | 0.029                 | 0.036   | 0.043   | 0.033    |  | 0.035 |
| #5 - Stage 1                     | Jan 06-                | Yes                           | Sample Date   | 1/11/06               | 4/12/06 | 7/12/06 | 10/11/06 |  |       |
| Well 1 Average<br>Residence Time | Jan 07                 |                               | Sample Result | 0.026                 | 0.034   | 0.046   | 0.037    |  | 0.036 |
| #5 - Stage 1                     | Jan 07-                | Yes                           | Sample Date   | 1/10/07               | 4/11/07 | 7/11/07 |          |  |       |
| Well 1 Average<br>Residence Time | July 07                |                               | Sample Result | 0.025                 | 0.035   | 0.049   |          |  | 0.036 |
| #6 - Stage 1                     | Jan 05-                | Yes                           | Sample Date   | 1/13/05               | 4/13/05 | 7/13/05 | 10/12/05 |  |       |
| Well 1 Average<br>Residence Time | Jan 06                 |                               | Sample Result | 0.040                 | 0.045   | 0.051   | 0.044    |  | 0.045 |
| #6 - Stage 1                     | Jan 06-                | Yes                           | Sample Date   | 1/11/06               | 4/12/06 | 7/12/06 | 10/11/06 |  |       |
| Well 1 Average<br>Residence Time | Jan 07                 |                               | Sample Result | 0.037                 | 0.043   | 0.050   | 0.044    |  | 0.044 |
| #6 - Stage 1                     | Jan 07-                | Yes                           | Sample Date   | 1/10/07               | 4/11/07 | 7/11/07 |          |  |       |
| Well 1 Average<br>Residence Time | July 07                |                               | Sample Result | 0.042                 | 0.048   | 0.053   |          |  | 0.048 |

<sup>&</sup>lt;sup>1</sup> Verify that site IDs match the site IDs on your distribution system schematic.

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### IV. PREVIOUSLY COLLECTED MONITORING RESULTS (Continued)\*

### D. HAA5 Results

| Site ID <sup>1</sup>             | 12-<br>month<br>period | Data<br>Qualifies<br>(yes/no) | Data Type     | Data Type HAA5 (mg/L) |         |         |          |  |       |
|----------------------------------|------------------------|-------------------------------|---------------|-----------------------|---------|---------|----------|--|-------|
| #7 -Stage 1 Well                 | Jan 05-                | Yes                           | Sample Date   | 1/13/05               | 4/13/05 | 7/13/05 | 10/12/05 |  |       |
| 1 Average<br>Residence Time      | Jan 06                 |                               | Sample Result | 0.049                 | 0.055   | 0.064   | 0.056    |  | 0.056 |
| #7 - Stage 1                     | Jan 06-                | Yes                           | Sample Date   | 1/11/06               | 4/12/06 | 7/12/06 | 10/11/06 |  |       |
| Well 1 Average<br>Residence Time | Jan 07                 |                               | Sample Result | 0.045                 | 0.052   | 0.061   | 0.054    |  | 0.053 |
| #7 Stage 1 Well                  | Jan 07-                | Yes                           | Sample Date   | 1/10/07               | 4/11/07 | 7/11/07 |          |  |       |
| 1 Average<br>Residence Time      | July 07                |                               | Sample Result | 0.048                 | 0.057   | 0.065   |          |  | 0.057 |
| #8 - Stage 1                     | Jan 05-                | Yes                           | Sample Date   | 1/13/05               | 4/13/05 | 7/13/05 | 10/12/05 |  |       |
| Well 1 Maximum<br>Residence Time | Jan 06                 |                               | Sample Result | 0.030                 | 0.057   | 0.066   | 0.053    |  | 0.052 |
| #8 - Stage 1                     | Jan 06-                | Yes                           | Sample Date   | 1/11/06               | 4/12/06 | 7/12/06 | 10/11/06 |  |       |
| Well 1 Maximum<br>Residence Time | Jan 07                 |                               | Sample Result | 0.026                 | 0.042   | 0.053   | 0.054    |  | 0.044 |
| #8 - Stage 1                     | Jan 07-                | Yes                           | Sample Date   | 1/10/07               | 4/11/07 | 7/11/07 |          |  |       |
| Well 1 Maximum<br>Residence Time | July 07                |                               | Sample Result | 0.028                 | 0.045   | 0.064   |          |  | 0.046 |

<sup>&</sup>lt;sup>1</sup> Verify that site IDs match the site IDs on your distribution system schematic.

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### IV. PREVIOUSLY COLLECTED MONITORING RESULTS (Continued)\*

### D. HAA5 Results

| Site ID <sup>1</sup>             | 12-<br>month<br>period | Data<br>Qualifies<br>(yes/no) | Data Type     | Type HAA5 (mg/L) |         |         |          |  |       |
|----------------------------------|------------------------|-------------------------------|---------------|------------------|---------|---------|----------|--|-------|
| #9 - Stage 1                     | Jan 05-<br>Jan 06      | Yes                           | Sample Date   | 1/14/05          | 4/14/05 | 7/14/05 | 10/13/05 |  |       |
| Well 2 Average<br>Residence Time | Jan 06                 |                               | Sample Result | 0.032            | 0.038   | 0.046   | 0.035    |  | 0.038 |
| #9 - Stage 1                     | Jan 06-                | Yes                           | Sample Date   | 1/12/06          | 4/13/06 | 7/13/06 | 10/12/06 |  |       |
| Well 2 Average<br>Residence Time | Jan 07                 |                               | Sample Result | 0.030            | 0.041   | 0.048   | 0.039    |  | 0.040 |
| #9 - Stage 1                     | Jan 07-                | Yes                           | Sample Date   | 1/11/07          | 4/12/07 | 7/12/07 |          |  |       |
| Well 2 Average<br>Residence Time | July 07                |                               | Sample Result | 0.031            | 0.036   | 0.045   |          |  | 0.037 |
| #10 - Stage 1                    | Jan 05-                | Yes                           | Sample Date   | 1/14/05          | 4/14/05 | 7/14/05 | 10/13/05 |  |       |
| Well 2 Average<br>Residence Time | Jan 06                 |                               | Sample Result | 0.031            | 0.037   | 0.056   | 0.044    |  | 0.042 |
| #10 - Stage 1                    | Jan 06-                | Yes                           | Sample Date   | 1/12/06          | 4/13/06 | 7/13/06 | 10/12/06 |  |       |
| Well 2 Average<br>Residence Time | Jan 07                 |                               | Sample Result | 0.037            | 0.044   | 0.053   | 0.042    |  | 0.044 |
| #10 - Stage 1                    | Jan 07-                | Yes                           | Sample Date   | 1/11/07          | 4/12/07 | 7/12/07 |          |  |       |
| Well 2 Average<br>Residence Time | July 07                |                               | Sample Result | 0.038            | 0.043   | 0.051   |          |  | 0.044 |

<sup>&</sup>lt;sup>1</sup> Verify that site IDs match the site IDs on your distribution system schematic.

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### IV. PREVIOUSLY COLLECTED MONITORING RESULTS (Continued)\*

### D. HAA5 Results

| Site ID <sup>1</sup>             | 12-<br>month<br>period | Data<br>Qualifies<br>(yes/no) | Data Type     |         |         | HAA5    | (mg/L)   | LRAA        |         |         |         |          |  |
|----------------------------------|------------------------|-------------------------------|---------------|---------|---------|---------|----------|-------------|---------|---------|---------|----------|--|
| #11 - Stage 1                    | Jan 05-<br>Jan 06      | Yes                           | Sample Date   | 1/14/05 | 4/14/05 | 7/14/05 | 10/13/05 |             |         |         |         |          |  |
| Well 2 Average<br>Residence Time | Jan 06                 |                               | Sample Result | 0.038   | 0.043   | 0.050   | 0.044    | 0.044       |         |         |         |          |  |
| #11 - Stage 1                    | Jan 06-                | Yes                           | Sample Date   | 1/12/06 | 4/13/06 | 7/13/06 | 10/12/06 |             |         |         |         |          |  |
| Well 2 Average<br>Residence Time | Jan 07                 |                               | Sample Result | 0.042   | 0.046   | 0.053   | 0.045    | 0.047       |         |         |         |          |  |
| #11 - Stage 1                    | Jan 07-                | Yes                           | Sample Date   | 1/11/07 | 4/12/07 | 7/12/07 |          |             |         |         |         |          |  |
| Well 2 Average<br>Residence Time | July 07                |                               | Sample Result | 0.037   | 0.042   | 0.051   |          | 0.043       |         |         |         |          |  |
| #12 - Stage 1                    | Jan 05-                |                               |               |         |         |         | Yes      | Sample Date | 1/14/05 | 4/14/05 | 7/14/05 | 10/13/05 |  |
| Well 2 Maximum<br>Residence Time | Jan 06                 |                               | Sample Result | 0.040   | 0.045   | 0.048   | 0.043    | 0.044       |         |         |         |          |  |
| #12 - Stage 1                    | Jan 06-                | Yes                           | Sample Date   | 1/12/06 | 4/13/06 | 7/13/06 | 10/12/06 |             |         |         |         |          |  |
| Well 2 Maximum<br>Residence Time | Jan 07                 |                               | Sample Result | 0.043   | 0.047   | 0.052   | 0.046    | 0.047       |         |         |         |          |  |
| #12 - Stage 1                    | Jan 07-                | Yes                           | Sample Date   | 1/11/07 | 4/12/07 | 7/12/07 |          |             |         |         |         |          |  |
| Well 2 Maximum<br>Residence Time | July 07                |                               | Sample Result | 0.040   | 0.048   | 0.056   |          | 0.048       |         |         |         |          |  |

<sup>&</sup>lt;sup>1</sup> Verify that site IDs match the site IDs on your distribution system schematic.

### Form 2: Existing Monitoring Results SSS Plan Page 15 of 16

### **V. CERTIFICATION OF DATA\***

I hereby certify that:

- The reported monitoring results include all compliance and non-compliance results generated during the time period beginning with the first reported result and ending with the most recent Stage 1 DBPR results.
- The samples are representative of the entire distribution system.
- Treatment and the distribution system have not changed significantly since the samples were collected.

| Signature: | Mary  | Flower, | P.E. |  |
|------------|-------|---------|------|--|
| Date:      | May 3 | 0, 2007 |      |  |

#### VI. PROPOSED SSS MONITORING SCHEDULE\*

Skip if you are submitting your IDSE Report at the same time as your plan

| SSS Site ID             | Projected Sampling Date (date or week) <sup>2</sup> |          |          |          |          |          |  |
|-------------------------|---|----------|----------|----------|----------|----------|--|
| (from map) <sup>1</sup> | period 1  | period 2 | period 3 | period 4 | period 5 | period 6 |  |
|                         |   |          |          |          |          |          |  |
|                         |   |          |          |          |          |          |  |
|                         |   |          |          |          |          |          |  |
|                         |   |          |          |          |          |          |  |
|                         |   |          |          |          |          |          |  |
|                         |   |          |          |          |          |          |  |
|                         |   |          |          |          |          |          |  |
|                         |   |          |          |          |          |          |  |

<sup>&</sup>lt;sup>1</sup> Verify that site IDs match IDs on your distribution system schematic (See Section VII of this form). Attach additional copies of this sheet if necessary.

<sup>&</sup>lt;sup>2</sup> period = monitoring period. Can list exact date or week (e.g., week of 7/9/07)

### Form 2: Existing Monitoring Results SSS Plan Page 16 of 16

#### **VII. DISTRIBUTION SYSTEM SCHEMATIC\***

#### ATTACH a schematic of your distribution system.

Distribution system schematics are not confidential and should not contain information that poses a **security risk** to your system. EPA recommends that you use one of two options:

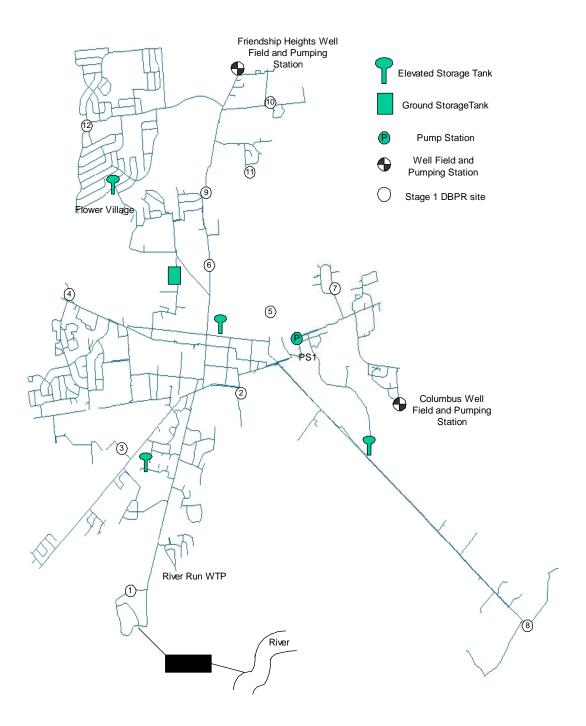
Option 1: Distribution system schematic with no landmarks or addresses indicated. Show locations of sources, entry points, storage facilities, operational monitoring locations, and Stage 1 compliance monitoring locations (required). Also include pressure zone boundaries and locations of pump stations. Provide map scale.

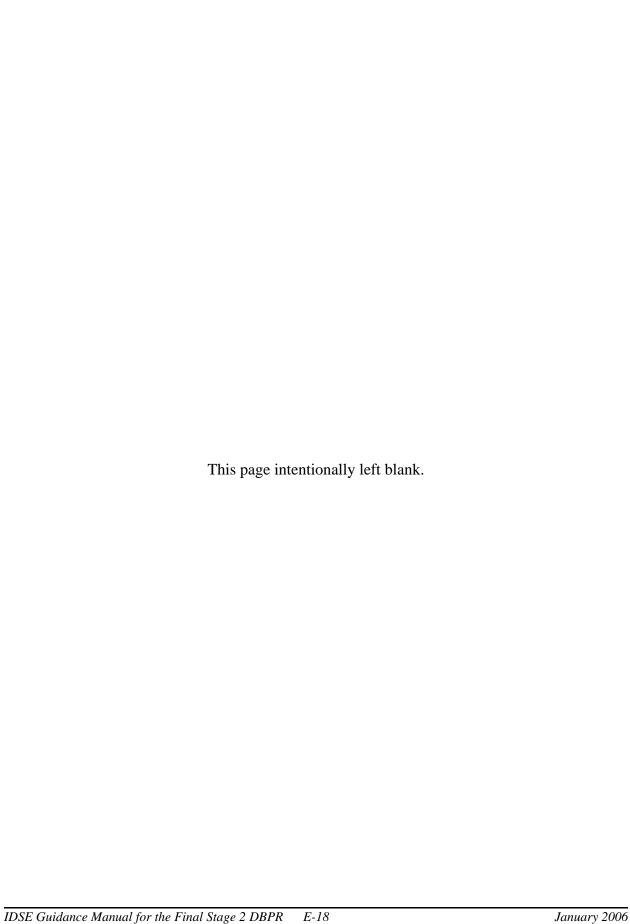
Option 2: City map without locations of pipes indicated. Show locations of sources, entry points, storage facilities, operational monitoring locations, and Stage 1 compliance monitoring locations (required). Also include boundaries of the distribution system, pressure zone boundaries and locations of pump stations. Provide map scale.

#### **VIII. ATTACHMENTS**

| <ul> <li>Additional sheets for explaining how you selected the peak historical month<br/>(Section III).</li> </ul> |
|--|
| $\hfill\Box$ Additional sheets for previously collected monitoring results (Section IV).                           |
| ☐ Additional sheets for proposed monitoring dates (Section VI).  |
| ☑ Distribution system schematic* (Section VII).  |
| Total Number of Pages in Your Plan:17_   |

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





### Form 3: IDSE Report for an Existing Monitoring **Results SSS** Page 1 of 5 I. GENERAL INFORMATION (Skip this section if you are submitting the plan and report at the same time) A. PWS Information\* B. Date Submitted\* PWSID: PWS Name: PWS Address: City: \_\_\_\_\_ State: \_\_\_ Zip: \_\_\_ Population Served: System Type: Source Water Type: Buying / Selling Relationships: □ CWS □ Subpart H □ Consecutive System □ NTNCWS ☐ Ground ☐ Wholesale System □ Neither C. PWS Operations Residual Disinfectant Type: ☐ Chlorine ☐ Chloramines ☐ Other\_\_\_\_\_ Number of Disinfected Sources: Surface GWUDI Ground Purchased D. Contact Person\* Name: Phone #: Fax #: E-mail: II. STAGE 2 DBPR REQUIREMENTS\* A. Number of required Stage 2 DBPR Compliance Monitoring Sites \_\_\_\_4\_\_ TOTAL \_\_\_\_\_\_ Highest TTHM \_\_\_\_\_ 1 Stage 1 DBPR \_\_\_\_\_ 1 Highest HAA5

### Form 3: IDSE Report for an Existing Monitoring **Results SSS** Page 2 of 5 II. STAGE 2 DBPR REQUIREMENTS (continued)\* **B. IDSE Schedule** C. Required Stage 2 DBPR Compliance Monitoring Frequency ☐ Schedule 1 ☐ During peak historical month (1 monitoring period) ☐ Schedule 2 ☑ Every 90 days (4 monitoring periods) Schedule 3 ☐ Schedule 4 III. ADDITIONAL SSS AND STAGE 1 COMPLIANCE MONITORING RESULTS\* (Skip this section if you are submitting the plan and report at the same time) Where were your TTHM and HAA5 samples analyzed? Α. □ In-House Is your in-house laboratory certified? □ Yes $\sqcap$ No ☐ Certified Laboratory Name of certified laboratory: В. What method(s) was used to analyze your TTHM and HAA5 samples? TTHM HAA5 □ EPA 502.2 ☐ EPA 552.1 ☐ EPA 524.2 ☐ EPA 552.2 ☐ EPA 551.1 ☐ EPA 552.3 ☐ SM 6251 B

## Form 3: IDSE Report for an Existing Monitoring Results SSS

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### IV. JUSTIFICATION OF STAGE 2 DBPR COMPLIANCE MONITORING SITES\*

| Stage 2<br>Compliance<br>Monitoring<br>Site ID         | Site Type  | Justification  |
|--|--|--|
| #12 - Stage 1<br>Well 2 Max<br>Residence<br>Time       | <ul><li>☑ Highest TTHM</li><li>☐ Highest HAA5</li><li>☐ Stage 1 DBPR</li></ul> | 1 <sup>st</sup> highest TTHM LRAA. Sampled quarterly at all sites, so compared LRAAs for all sites instead of comparing individual sample results from peak historical month. This is true for the selection of all Stage 2 compliance monitoring sites. |
| #2 - Stage 1<br>SW Plant Ave<br>Residence<br>Time Site | ☐ Highest TTHM ☑ Highest HAA5 ☐ Stage 1 DBPR                                   | 1 <sup>st</sup> highest HAA5; site #7 had the same LRAA result.<br>Site #7 is selected for the Stage 1 site.   |
| #7 - Stage 1<br>Well 1 Av<br>Residence<br>Time         | <ul><li>☐ Highest TTHM</li><li>☐ Highest HAA5</li><li>☒ Stage 1 DBPR</li></ul> | Stage 1 site with highest HAA5 LRAA  |
| # 4 - Stage 1<br>SW plant max<br>residence time        | <ul><li>☑ Highest TTHM</li><li>☐ Highest HAA5</li><li>☐ Stage 1 DBPR</li></ul> | 2 <sup>nd</sup> highest TTHM LRAA  |
|  | ☐ Highest TTHM☐ Highest HAA5☐ Stage 1 DBPR                                     |  |
|  | ☐ Highest TTHM☐ Highest HAA5☐ Stage 1 DBPR                                     |  |
|  | ☐ Highest TTHM☐ Highest HAA5☐ Stage 1 DBPR                                     |  |

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

### Form 3: IDSE Report for an Existing Monitoring **Results SSS**

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|     | 3  |  |
|-----|--|--|
| ٧.  | PEAK HISTORICAL MONTH  |  |
| A.  | Peak Historical Month* July  |  |
| В.  | Is Your Peak Historical Month the Same as In Your SSS Plan?  |  |
|     | ⊠ Yes □ No   |  |
|     | If no, explain how you selected your new peak historical month (attach additional sheets if needed): |  |
|     |  |  |
|     |  |  |
|     |  |  |
|     |  |  |
|     |  |  |
| VI. | PROPOSED STAGE 2 DBPR COMPLIANCE MONITORING SCHEDULE*  |  |

| Stage 2<br>Compliance | Projected Sampling Date (date or week) 1 |            |           |           |  |  |
|-----------------------|--|------------|-----------|-----------|--|--|
| Monitoring<br>Site ID | period 1                                 | period 2   | period 3  | period 4  |  |  |
| #12                   | 7/15/2013                                | 10/15/2013 | 1/15/2014 | 4/15/2014 |  |  |
| #2                    | 7/15/2013                                | 10/15/2013 | 1/15/2014 | 4/15/2014 |  |  |
| #7                    | 7/15/2013                                | 10/15/2013 | 1/15/2014 | 4/15/2014 |  |  |
| #4                    | 7/15/2013                                | 10/15/2013 | 1/15/2014 | 4/15/2014 |  |  |
|                       |  |            |           |           |  |  |
|                       |  |            |           |           |  |  |
|                       |  |            |           |           |  |  |
|                       |  |            |           |           |  |  |

<sup>&</sup>lt;sup>1</sup> 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.

## Form 3: IDSE Report for an Existing Monitoring Results SSS

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### **VII. DISTRIBUTION SYSTEM SCHEMATIC\***

(Skip this section if you are submitting the plan and report at the same time)

ATTACH a schematic of your distribution system if it has changed since you submitted your Existing Monitoring Results SSS Plan (Form 2).

| VIII. ATTACHMENTS   |
|---|
| □ Additional sheets for Additional SSS Monitoring Results (Section III).  |
| □ Additional sheets for Stage 2 DBPR Monitoring Sites (Section IV). <b>REQUIRED if you</b> are a subpart H system serving more than 249,999 people. |
| <ul> <li>□ Additional sheets for explaining how you selected the peak historical month (Section V).</li> </ul>                                      |
| □ Additional sheets for proposed compliance monitoring dates (Section VI). REQUIRED if you are a subpart H system serving more than 249,999 people. |
| ☐ Explanation of deviations from approved study plan.   |
| □ Distribution system schematic* (Section VII). <b>REQUIRED if it has changed from your approved SSS plan</b> .                                     |
| □ Compliance calculation procedures (for Stage 2 Compliance Monitoring Plan).   |
| Total Number of Pages in Your Report: <u>5</u>  |

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

