



**Spokane County**  
**Environmental Services**  
**Kevin R. Cooke, P.E., Director**

January 27, 2021

Water Quality Permit Coordinator  
Eastern Regional Office  
Washington State Department of Ecology  
4601 N Monroe Street  
Spokane WA 99205-1295

Subject: Application for Renewal of NPDES Permit WA-0093317  
Spokane County Regional Water Reclamation Facility

Dear Water Quality Permit Coordinator,

As requested in Ecology's letter of August 11, 2020, enclosed please find a hard copy of the renewal application for NPDES Permit WA-0093317, for discharge from the Spokane County Regional Water Reclamation Facility (SCRWRF). Also find several attachments providing details of requested permit conditions. As requested this application is also being sent electronically to [stra461@ecy.wa.gov](mailto:stra461@ecy.wa.gov).

Please note, at item 1.23 of the application, regarding planned submittal of a water quality variance application authorized at 40 CFR 122.21(n), Spokane County has selected "Not Applicable," based on the fact that in April 2019, Spokane County submitted an application for a water quality variance from potential effluent limits for polychlorinated biphenyls (PCBs). The County's application remains in place and pending before Ecology because the County may still require a variance from the PCB water quality standard.

Spokane County Environmental Services appreciates the time required for you to prepare the NPDES permit renewal. If you need any additional information, please contact me, 509-477-7576 or [rlindsay@spokanecounty.org](mailto:rlindsay@spokanecounty.org).

Sincerely,

Rob Lindsay, LHg  
Water Programs Manager

CC: file

Enclosures: See attached list of enclosures

1026 West Broadway Avenue, 4th Floor • Spokane, WA 99260-0430  
Phone: (509) 477-3604 • Fax: (509) 477-4715 • TDD: (509) 477-7133

Spokane County Regional Water Reclamation Facility  
NPDES Permit Renewal Application, January 27, 2021

List of Enclosures

1. Application form 2A
2. Attachments:
  - B: Request Modifications for Monitoring Requirements & Receiving Water Studies
  - C: Request Receiving Water Critical Flow Change
  - D: Request Modification of Effluent Limitations for pH
  - E: Request Removal of Effluent Limits for Cd, Pb, and Zn
  - F: Request for Sample Frequency Reduction
  - G: Request Removal of Ammonia Nitrogen Limits Based on Toxicity
  - H: Signature Authority Delegation
3. Receiving Water Studies – Temperature
  - 2012
  - 2013
  - 2014
  - 2015
  - 2016
  - 2017
  - 2018
  - 2019
  - 2020
4. Receiving Water Studies – Conventional Parameters
  - 2013
  - 2015
  - Full sampling data set, with additional 2014 and 2016 data

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Water Permits Division

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# **Application Form 2A**

## **New and Existing Publicly Owned Treatment Works**

### **NPDES Permitting Program**

**Note:** Complete this form if your facility is a new or existing publicly owned treatment works.

## **Paperwork Reduction Act Notice**

The U.S. Environmental Protection Agency estimates the average burden to collect information and complete Form 2A to average between 4.7 and 24.7 hours, depending on the number of sections the applicant must complete. The estimate includes time for reviewing instructions, searching existing data sources, gathering and maintaining the needed data, and completing and reviewing the collection of information. Send comments about the burden estimate or any other aspect of this collection of information to the Chief, Information Policy Branch (PM-223), U.S. Environmental Protection Agency, 1200 Pennsylvania Avenue, NW, Washington, DC 20460, and to the Office of Information and Regulatory Affairs, Office of Management and Budget, 725 17<sup>th</sup> Street, NW, Washington, DC 20503, marked "Attention: Desk Officer for EPA."



## FORM 2A—GENERAL INSTRUCTIONS

### Who Must Complete Form 2A?

All new and existing publicly owned treatment works (POTWs) and other dischargers designated by the National Pollutant Discharge Elimination System (NPDES) permitting authority must complete Form 2A. Note that you may wish to consult the “General Instructions” of NPDES Application Form 1 to determine if your treatment works is required to submit any additional NPDES application forms.

At the state level, either the U.S. Environmental Protection Agency (EPA) or an approved state agency administers the NPDES permit program. If you are located in a jurisdiction in which an EPA regional office administers the NPDES permit program, you should use Form 2A and all other applicable forms described in these instructions. If you are located in a jurisdiction where a state administers the NPDES permit program, contact the state to determine the forms you should complete. States often develop their own application forms rather than use the federal forms. See <http://www.epa.gov/npdes/npdes-state-program-information> for a list of states that have approved NPDES permit programs and those that do not.

Exhibit 2A–1 (see end of this section) provides contact information for each of EPA’s 10 regional offices. Since the exhibit’s content is subject to change, consult EPA’s website for the latest information: <http://www.epa.gov/aboutepa#regional>.

### Where to File Your Completed Form

- If you are in a jurisdiction with an approved state NPDES permit program, file according to the instructions on the state forms.
- If you are in a jurisdiction where EPA is the NPDES permitting authority (i.e., the state is *not* an NPDES-authorized state), mail the completed application forms to the EPA regional office that covers the state in which your facility is located (see Exhibit 2A–1).

### When to File Your Completed Form

Form 2A must be submitted at least 180 days before your present NPDES permit expires or, if you are a new discharger, at least 180 days before the date on which the discharge is to commence, unless the NPDES permitting authority has granted permission for a later date.

### Fees

EPA does not require applicants to pay a fee for applying for NPDES permits. However, states that administer the NPDES permit program may charge fees. Consult with state officials for further information.

### Public Availability of Submitted Information

EPA will make information from NPDES permit application forms available to the public for inspection and copying upon request. You may not claim any information on Form 2A (or related attachments) as confidential.

You may make a claim of confidentiality for any information that you submit to EPA that goes beyond the information required by

Form 2A. If you do not assert a claim of confidentiality at the time you submit your information to the NPDES permitting authority, EPA may make the information available to the public without further notice to you. EPA will handle claims of confidentiality in accordance with the Agency’s business confidentiality regulations at Part 2 of Title 4 of the *Code of Federal Regulations* (CFR).

### Completion of Forms

Form 2A is divided into six major sections. It also contains five effluent monitoring tables (Tables A through E) and an industrial discharge information table (Table F), all located at the end of the form. Note that not all applicants are required to complete each section of the form or all of the tables. The questions on the form will direct you to the items and tables you must complete.

Print or type in the specified areas only. If you do not have enough space on the form to answer a question, you may continue on additional sheets, as necessary, using a format consistent with the form.

Provide your EPA Identification Number from the Facility Registry Service, NPDES permit number, and facility name at the top of each page of Form 2A and any attachments. If your facility is new (i.e., not yet constructed), write or type “New Facility” in the space provided for the EPA Identification Number and NPDES permit number. If you do not know your EPA Identification Number, contact your NPDES permitting authority. See Exhibit 2A–1 for contact information. Additionally, for Tables A through E, provide the applicable outfall number at the top of each page.

Do not leave any response areas blank unless the form directs you to skip them. If the form directs you to respond to an item that does not apply to your facility or activity, enter “NA” for “not applicable” to show that you considered the item and determined a response was not necessary for your facility.

If you have previously submitted information that answers a specific question to EPA or an approved state NPDES agency, you may either repeat the information in the space provided or attach a copy of the previous submission.

#### Note for New Dischargers

Provide all information available to you at the time you complete Form 2A. If you do not have information to respond to an item because your facility has yet to discharge, write or type “data are not available” next to the item on the form. Note that you are required to submit *actual* data no later than 24 months after your facility commences to discharge.

The NPDES permitting authority will consider your application complete when it and any supplementary material are received and completed according to the authority’s satisfaction. The NPDES permitting authority will judge the completeness of any application independently of the status of any other permit application or permit for the same facility or activity.

### Definitions

The legal definitions of all key terms used in the various NPDES application forms are included in the “Glossary” at the end of these instructions.

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**FORM 2A—GENERAL INSTRUCTIONS CONTINUED**

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**Exhibit 2A–1. Addresses of EPA Regional Contacts and Covered States**

<p><b>REGION 1</b>  U.S. Environmental Protection Agency, Region 1  5 Post Office Square, Suite 100, Boston, MA 02109-3912  Phone: (617) 918-1111; toll free: (888) 372-7341  Fax: (617) 918-0101  Website: <a href="http://www.epa.gov/aboutepa/epa-region-1-new-england">http://www.epa.gov/aboutepa/epa-region-1-new-england</a>  Covered states: Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, and Vermont</p>	<p><b>REGION 6</b>  U.S. Environmental Protection Agency, Region 6  1445 Ross Avenue, Suite 1200, Dallas, TX 75202-2733  Phone: (214) 665-2200; toll free: (800) 887-6063  Fax: (214) 665-7113  Website: <a href="http://www.epa.gov/aboutepa/epa-region-6-south-central">http://www.epa.gov/aboutepa/epa-region-6-south-central</a>  Covered states: Arkansas, Louisiana, New Mexico, Oklahoma, and Texas</p>
<p><b>REGION 2</b>  U.S. Environmental Protection Agency, Region 2  290 Broadway, New York, NY 10007-1866  Phone: (212) 637-3000; toll free: (877) 251-4575  Fax: (212) 637-3526  Website: <a href="http://www.epa.gov/aboutepa/epa-region-2">http://www.epa.gov/aboutepa/epa-region-2</a>  Covered states: New Jersey, New York, Virgin Islands, and Puerto Rico</p>	<p><b>REGION 7</b>  U.S. Environmental Protection Agency, Region 7  11201 Renner Boulevard, Lenexa, KS 66219  Phone: (913) 551-7003; toll free: (800) 223-0425  Website: <a href="http://www.epa.gov/aboutepa/epa-region-7-midwest">http://www.epa.gov/aboutepa/epa-region-7-midwest</a>  Covered states: Iowa, Kansas, Missouri, and Nebraska</p>
<p><b>REGION 3</b>  U.S. Environmental Protection Agency, Region 3  1650 Arch Street, Philadelphia, PA 19103-2029  Phone: (215) 814-5000; toll free: (800) 438-2474  Fax: (215) 814-5103  Website: <a href="http://www.epa.gov/aboutepa/epa-region-3-mid-atlantic">http://www.epa.gov/aboutepa/epa-region-3-mid-atlantic</a>  Covered states: Delaware, District of Columbia, Maryland, Pennsylvania, Virginia, and West Virginia</p>	<p><b>REGION 8</b>  U.S. Environmental Protection Agency, Region 8  1595 Wynkoop Street, Denver, CO 80202-1129  Phone: (303) 312-6312; toll free: (800) 227-8917  Fax: (303) 312-6339  Website: <a href="http://www.epa.gov/aboutepa/epa-region-8-mountains-and-plains">http://www.epa.gov/aboutepa/epa-region-8-mountains-and-plains</a>  Covered states: Colorado, Montana, North Dakota, South Dakota, Utah, and Wyoming</p>
<p><b>REGION 4</b>  U.S. Environmental Protection Agency, Region 4  Sam Nunn Atlanta Federal Center  61 Forsyth Street, SW, Atlanta, GA 30303-8960  Phone: (404) 562-9900; toll free: (800) 241-1754  Fax: (404) 562-8174  Website: <a href="http://www.epa.gov/aboutepa/about-epa-region-4-southeast">http://www.epa.gov/aboutepa/about-epa-region-4-southeast</a>  Covered states: Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, and Tennessee</p>	<p><b>REGION 9</b>  U.S. Environmental Protection Agency, Region 9  75 Hawthorne Street, San Francisco, CA 94105  Phone: (415) 947-8000; toll free: (866) EPA-WEST  Fax: (415) 947-3553  Website: <a href="http://www.epa.gov/aboutepa/epa-region-9-pacific-southwest">http://www.epa.gov/aboutepa/epa-region-9-pacific-southwest</a>  Covered states: Arizona, California, Hawaii, Nevada, Guam, American Samoa, and Trust Territories</p>
<p><b>REGION 5</b>  U.S. Environmental Protection Agency, Region 5  77 West Jackson Boulevard, Chicago, IL 60604-3507  Phone: (312) 353-2000; toll free: (800) 621-8431  Fax: (312) 353-4135  Website: <a href="http://www.epa.gov/aboutepa/epa-region-5">http://www.epa.gov/aboutepa/epa-region-5</a>  Covered states: Illinois, Indiana, Michigan, Minnesota, Ohio, and Wisconsin</p>	<p><b>REGION 10</b>  U.S. Environmental Protection Agency, Region 10  1200 Sixth Avenue, Suite 900, Seattle, WA 98101  Phone: (206) 553-1200; toll free: (800) 424-4372  Fax: (206) 553-2955  Website: <a href="http://www.epa.gov/aboutepa/epa-region-10-pacific-northwest">http://www.epa.gov/aboutepa/epa-region-10-pacific-northwest</a>  Covered states: Alaska, Idaho, Oregon, and Washington</p>

## Section 1. Basic Application Information for All Applicants

### Facility Information

**Item 1.1.** Enter the facility's official or legal name. Do not use a colloquial name. Provide the *mailing address* of the facility. Next, give the name (first and last), title, work telephone number, and email address of the person who is thoroughly familiar with the operation of the facility and with the facts reported in this application.

Include a complete *location address* for the facility if different from the mailing address. If the facility lacks a street name or route number, give the most accurate, alternative geographic information (e.g., section number or quarter section number from county records or "at intersection of Routes 425 and 22").

**Item 1.2.** Indicate whether the application is for a facility that has not yet commenced discharge. If yes, be advised that you are required to submit *actual* data no later than 24 months after your facility commences to discharge.

### Applicant Information

**Item 1.3.** Indicate if the applicant is different from the entity listed under Item 1.1. If so, specify the applicant name and address. Provide the name (first and last) of a contact, including his/her title, telephone number, and email address.

**Item 1.4.** Indicate if the applicant is the facility's owner, operator, or both.

**Item 1.5.** Specify whether the NPDES permitting authority should send correspondence to the facility or the applicant.

### Existing Environmental Permits

**Item 1.6.** Indicate all environmental permits or construction approvals received or applied for (including dates) under the noted programs. Print or type the corresponding permit number for each.

### Collection System and Population Served

**Item 1.7.** Specify the municipalities served by the treatment works, including unincorporated connector districts. For each municipality, indicate the population served, the percentage of each collection system type if known (e.g., separate sanitary or combined storm and sanitary), and collection system ownership status. Finally, indicate the total percentage of sewer line each type comprises.

Do not report privately owned collection systems discharging industrial waste to the treatment works in Item 1.7. Those facilities must be reported on Table F.

### Indian Country

**Item 1.8.** Indicate if the POTW is located in Indian Country.

**Item 1.9.** Note whether the treatment works discharges to a receiving stream that flows through Indian Country.

### Design and Actual Flow Rates

**Item 1.10.** Provide the facility's *design* flow rate in million gallons per day (mgd). Next, specify the facility's *actual* annual average daily flow rate and maximum daily flow rate for each of the previous three years (in mgd).

### Discharge Points by Type

**Item 1.11.** Provide the facility's total number of effluent discharge points to waters of the United States by type (e.g., treated effluent, untreated effluent, combined sewer overflows, bypasses, and constructed emergency overflows).

### Outfalls and Other Discharge or Disposal Methods

#### *Outfalls Other Than to Waters of the United States*

**Item 1.12.** Indicate whether the POTW discharges wastewater to basins, ponds, or other surface impoundments that do not have outlets for discharge to waters of the United States. If yes, continue to Item 1.13. If no, skip to Item 1.14.

**Item 1.13.** Specify the location of each surface impoundment, the average daily volume discharged to each surface impoundment in gallons per day (gpd), and whether the discharge is continuous or intermittent.

**Item 1.14.** Indicate if the facility applies wastewater to land. If yes, continue to Item 1.15. If no, skip to Item 1.16.

**Item 1.15.** Provide the location of each land application site; the size of each land application site (in acres); the average daily volume applied to each land application site (in gpd), and whether the land application is continuous or intermittent.

**Item 1.16.** Note whether the facility's effluent is transported to another facility for treatment prior to discharge. If yes, continue to Item 1.17. If no, skip to Item 1.21.

**Item 1.17.** Describe the means by which the effluent is transported, such as by tank truck or pipe.

**Item 1.18.** Specify whether the facility's effluent is transported by a party other than the applicant. If yes, continue to Item 1.19. If no, skip to Item 1.20.

**Item 1.19.** Provide the name, mailing address, contact person, phone number, and email address of the entity that transports the discharge.

**Item 1.20.** Provide the name, mailing address, contact person, phone number, email address, and NPDES permit number (if any) of the receiving facility. Also specify the average daily flow rate from the facility into the receiving facility in mgd.

**Item 1.21.** Indicate if wastewater is disposed of in a manner other than those already mentioned in Items 1.14 through 1.21 that do not have outlets to waters of the United States, such as underground percolation and underground injections. If yes, continue to Item 1.22. If no, skip to Item 1.23.

**Item 1.22.** Provide a description of the disposal method, including the location and size of each disposal site; the annual average daily discharge volume (in gpd), and whether disposal through this method is continuous or intermittent.

### Variance Requests

**Item 1.23.** If known at the time of application, check all of the authorized variances that you plan to request or renew. Note that you are not being asked to submit any other information at this time. Contact your NPDES permitting authority to determine the

specifics of what you should provide and when. The ability to request a variance is not limited to the time of application, and an applicant may request a variance consistent with statutory and regulatory requirements.

### Contractor Information

**Item 1.24.** Indicate if any of the operational or maintenance activities associated with wastewater treatment and effluent quality of the POTW are the responsibility of a contractor. If yes, continue to Item 1.25. If no, skip to Section 2.

**Item 1.25.** Provide a listing of all contractors (by company name). For each, specify the mailing address, a contact name, telephone number, and email address. Also summarize the operational and maintenance responsibilities of each contractor.

## Section 2. Additional Information

### Outfalls to Waters of the United States

#### Design Flow

**Item 2.1.** Indicate whether the treatment works has a design flow greater than or equal to 0.1 mgd. If yes, continue to Item 2.2. If no, skip to Section 3.

#### Inflow and Infiltration

**Item 2.2.** Specify the POTW's current average daily volume of inflow and infiltration (in gpd) and steps the facility is taking to minimize inflow and infiltration.

#### Topographic Map

**Item 2.3.** Prepare a topographic map (or other map if a topographic map is unavailable) extending at least one mile beyond property boundaries of the treatment plant, including all unit processes and showing the following: (1) treatment plant area and unit processes; (2) major pipes or other structures through which wastewater enters the treatment plant and the pipes or other structures through which treated wastewater is discharged from the treatment plant (include outfalls from bypass piping, if applicable); (3) each well where fluids from the treatment plant are injected underground; (4) wells, springs, and other surface water bodies listed in public records or otherwise known to the applicant within ¼ mile of the treatment works' property boundaries; (5) sewage sludge management facilities (including onsite treatment, storage, and disposal sites); and (6) location at which waste classified as hazardous under the Resource Conservation and Recovery Act (RCRA) enters the treatment plant by truck, rail, or dedicated pipe.

On each map, include the map scale, a meridian arrow showing north, and latitude and longitude to the nearest second. Latitude and longitude coordinates may be obtained in a variety of ways, including use of hand held devices (e.g., a GPS enabled smartphone), internet mapping tools (e.g., <https://mynasadata.larc.nasa.gov/latitudelongitude-finder/>), geographic information systems (e.g., ArcView), or paper maps from trusted sources (e.g., U.S. Geological Survey or USGS).

On all maps of rivers, show the direction of the current. In tidal waters, show the directions of ebb and flow tides.

You may develop your map by going to USGS's National Map

website at <http://nationalmap.gov/>. (For a map from this site, use the traditional 7.5-minute quadrangle format. If none is available, use a USGS 15-minute series map.) You may also use a plat or other appropriate map. Briefly describe land uses in the map area (e.g., residential, commercial). An example of an acceptable location map is shown as Exhibit 2A–2 at the end of these instructions. **Note:** Exhibit 2A–2 is provided for illustration only; it does not show an actual facility. Note that you have completed your topographic map and attached it to the application.

#### Flow Diagram

**Item 2.4.** Provide a process flow diagram or schematic showing the processes of the treatment plant, including all bypass piping and all backup power sources or redundancy in the system. This includes a water balance showing all treatment units, including disinfection (e.g., chlorination and dechlorination), and showing daily average flow rates at influent and discharge points, and approximate daily flow rates between treatment units. Also provide a narrative description of the diagram/schematic. Answer "Yes" to Item 2.4 once you have completed and attached your diagram to the application.

#### Scheduled Improvements and Schedules of Implementation

**Item 2.5.** Indicate whether any improvements to the facility are scheduled. If yes, list and briefly describe each scheduled improvement and continue to Item 2.6. If no, skip to Section 3.

**Item 2.6.** For each scheduled improvement, indicate the outfall number of each outfall affected and the scheduled or actual dates of completion for the following: (1) commencement of construction, (2) completion of construction, (3) commencement of discharge, and (4) attainment of operational level.

**Item 2.7.** Note whether the appropriate permits/clearances concerning other federal/state requirements have been obtained and briefly explain your response.

## Section 3. Information on Effluent Discharges

### Description of Outfalls

**Item 3.1.** Provide a description of each of the POTW's wastewater discharge outfalls. The application form provides reporting space for three outfalls. If your facility has more than this number, attach additional sheets as necessary.

For each outfall, provide the outfall number. Indicate the state, county, and city or town where each outfall is located. Note the distance from shore in feet and the depth below the surface in feet. Specify the average daily flow rate through the outfall in mgd. Also specify the latitude and longitude of each outfall to the nearest second. Latitude and longitude coordinates may be obtained in a variety of ways, including use of hand held devices (e.g., a GPS enabled smartphone), internet mapping tools (e.g., <https://mynasadata.larc.nasa.gov/latitudelongitude-finder/>), geographic information systems (e.g., ArcView), or paper maps from trusted sources (e.g., USGS). The location of each outfall (i.e., where the coordinates are collected) shall be the point where the discharge is released into a water of the United States. For further guidance, refer to <http://www.epa.gov/geospatial/latitudelongitude-data-standard>.

### Seasonal or Periodic Discharge Data

**Item 3.2.** Indicate whether any of the outfalls described under Item 3.1 have seasonal or periodic discharges. If yes, continue to Item 3.3. If no, skip to Item 3.4.

**Item 3.3.** Specify the following for each applicable outfall: (1) number of times per year discharge occurs, (2) average duration of each discharge, (3) average flow of each discharge in mgd, and (4) months in which discharge occurs.

### Diffuser Type

**Item 3.4.** Note whether any of the outfalls listed under Item 3.1 are equipped with a diffuser. If yes, continue to Item 3.5. If no, skip to Item 3.6.

**Item 3.5.** Briefly describe the diffuser type at each applicable outfall.

### Waters of the United States

**Item 3.6.** Note whether the POTW discharges or plans to discharge wastewater to waters of the United States from one or more discharge points. If yes, continue to Item 3.7. If no, skip to Section 6.

### Receiving Water Description

**Item 3.7.** Provide receiving water and related information in the table provided on the form (if known): (1) name of receiving water, (2) name of watershed/river/stream system and U.S. Soil Conservation Service 14-digit watershed code, (3) name of state management/river basin and U.S. Geological Survey (USGS) 8-digit hydrologic unit code, (4) acute and chronic critical low flow in cubic feet per second (cfs) and total hardness of receiving stream at critical low flow, in milligrams per liter (mg/L) of calcium carbonate, if applicable.

### Treatment Description

**Item 3.8.** Specify the highest level of treatment provided for discharges from each outfall (e.g., primary, equivalent to secondary, secondary, or advanced). Also indicate the following design removals (in percent) for the following parameters for each outfall: (1) biochemical oxygen demand (BOD<sub>5</sub> or CBOD<sub>5</sub>), (2) total suspended solids (TSS), (3) phosphorus (if applicable), (4) nitrogen (if applicable), and (5) any other removals that an advanced treatment system is designed to achieve.

**Item 3.9.** Provide a description of the type(s) of disinfection used for wastewater discharged through each outfall. Indicate the seasons the disinfection type is used. Note whether the POTW dechlorinates if disinfection is accomplished through chlorination. Otherwise, check "Not Applicable."

### Effluent Testing Data and Tables A through E

**Items 3.10 to 3.26.** These items require you to collect and report data for the parameters and pollutants listed in Tables A through E, located at the end of Form 2A. The instructions for completing the tables are table-specific, as are the criteria for determining who should complete them.

**Important note:** Read the "General Instructions for Reporting, Sampling, and Analysis" later in these instructions before

completing Items 3.10 to 3.26 and Tables A through E.

**Item 3.10 and Table A.** All applicants that discharge wastewater to waters of the United States must provide effluent data for Table A parameters. Respond "Yes" to Item 3.10 when you have completed Table A and attached it to your application.

**Item 3.11.** Answer whether the POTW has conducted any whole effluent toxicity (WET) tests during the 4.5 years prior to the date of the application on any of the facility's discharges or on any receiving water near the discharge points. If yes, continue to Item 3.12. If no, skip to Item 3.13.

**Item 3.12.** For each applicable outfall, note the number of acute and chronic WET tests conducted since the last permit reissuance of the facility's discharges or of the receiving water near the discharge points.

**Item 3.13.** Note whether the POTW has a design flow greater than or equal to 0.1 mgd. If yes, continue to Item 3.14. If no, skip to Item 3.16.

**Item 3.14 and Table B.** Answer whether the treatment works uses chlorine for disinfection, uses it elsewhere in the treatment process, or otherwise has reasonable potential to discharge chlorine in its effluent. If yes, complete Table B including chlorine. If no, complete Table B, omitting chlorine.

**Item 3.15.** Answer "Yes" when you have completed monitoring for all applicable Table B parameters and attached the results to your application.

**Item 3.16 and Screen for Tables C through E.** Indicate whether one or more of the conditions apply to your POTW. If yes, continue to Item 3.17. If no, skip to Section 4.

**Item 3.17 and Table C.** Answer "Yes" to indicate you have completed monitoring for all applicable Table C pollutants and attached the results to your application package.

**Item 3.18 and Table D.** Answer "Yes" to indicate you have completed monitoring for applicable Table D pollutants required by your NPDES permitting authority and attached the results to your application package, or "No" if the NPDES permitting authority has not required additional sampling for the pollutants in Table D.

**Item 3.19 and Additional Screen for Table E.** Answer whether the POTW conducted either (1) a minimum of four quarterly WET tests for one year preceding this permit application or (2) at least four annual WET tests in the past 4.5 years. If yes, continue to Item 3.20. If no, complete tests and Table E and then skip to Item 3.26.

**Item 3.20 and Additional Screen for Table E.** Report whether you have previously submitted the results of the WET tests indicated in Item 3.19 to your NPDES permitting authority. If yes, continue to Item 3.21. If no, provide the results in Table E and skip to Item 3.26.

**Item 3.21.** Report the dates the testing data were submitted to your NPDES permitting authority and provide a summary of the results.

**Item 3.22.** Regardless of how you may have provided the results of previously conducted WET analyses to your NPDES permitting authority, indicate if any of the tests resulted in toxicity. If yes,

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**FORM 2A—LINE-BY-LINE INSTRUCTIONS CONTINUED**

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continue to Item 3.23. If no, skip to Item 3.26.

**Item 3.23.** Describe the cause(s) of toxicity.

**Item 3.24.** Indicate if the POTW has conducted a toxicity reduction evaluation. If yes, continue to Item 3.25. If no, skip to Item 3.26.

**Item 3.25.** Provide details of any toxicity reduction evaluations performed.

**Item 3.26.** Answer “Yes” when you have completed Table E for all applicable outfalls and attached the results to the application package, or answer “No” if the item is not applicable because you previously submitted WET data to your NPDES permitting authority.

**Section 4. Industrial Discharges, Table F, and Hazardous Wastes**

**Item 4.1.** Indicate if the POTW receives discharges from significant industrial users (SIUs) or non-significant categorical industrial users (NSCIUs), including SIUs and NSCIUs that truck or haul waste. If yes, continue to Item 4.2. If no, skip to Item 4.7.

1. SIUs are defined as:
  - a. All industrial users subject to categorical pretreatment standards under 40 CFR 403.6 and 40 CFR Chapter I, Subchapter N (CIUs); and
  - b. Any other industrial user per 40 CFR 403.3 that:
    - i. Discharges an average of 25,000 gpd or more of process wastewater to the treatment works (with certain exclusions); or
    - ii. Contributes a process wastestream that makes up 5 percent or more of the average dry weather hydraulic or organic capacity of the treatment plant; or
    - iii. Is designated as an SIU by the control authority.
2. The control authority may determine that an Industrial User subject to categorical Pretreatment Standards under 40 CFR 403.6 and 40 CFR Chapter I, Subchapter N is a NSCIU rather than a SIU on a finding that the Industrial User never discharges more than 100 gpd of total categorical wastewater (excluding sanitary, non-contact cooling and boiler blowdown wastewater, unless specifically included in the Pretreatment Standard) and the following conditions are met:
  - a. The Industrial User, prior to the control authority's finding, has consistently complied with all applicable categorical Pretreatment Standards and Requirements;
  - b. The Industrial User annually submits the certification statement required in 40 CFR 403.12(q) together with any additional information necessary to support the certification statement; and
  - c. The Industrial User never discharges any untreated concentrated wastewater.

**Item 4.2.** Indicate the number of SIUs and NSCIUs that discharge to the POTW.

**Item 4.3.** Answer whether the POTW has an approved

pretreatment program, which is defined at 40 CFR 403.3 as a program administered by a POTW that meets the criteria established in 40 CFR 403.8 and 403.9 and that has been approved by the NPDES permitting authority.

**Item 4.4.** Answer whether you have submitted either of the following to the NPDES permitting authority that contains information substantially identical to that required in Table F: (1) a pretreatment program annual report submitted within one year of the application or (2) a pretreatment program. If yes, continue to Item 4.5. If no, skip to Item 4.6.

**Item 4.5.** Identify the title and date of the pretreatment program annual report or pretreatment program referenced in Item 4.4 and skip to Item 4.7.

**Item 4.6 and Table F.** Complete Table F by providing the following information for each SIU that discharges to the POTW: (1) name and mailing address; (2) description of all industrial processes that affect or contribute to each SIU's discharge; (3) a list of the principal products and raw materials that affect or contribute to the SIU's discharge; (4) average daily volume of wastewater discharged by each SIU, indicating the amount attributable to process flow and non-process flow; (5) whether the SIU is subject to local limits; (6) whether the SIU is subject to categorical standards and the categories/subcategories under which the SIU is subject; and (7) whether any problems (e.g., upsets, pass-through interference) have occurred at the POTW that can be attributed to the SIU in the past 4.5 years. Answer “Yes” to Item 4.6 when you have completed and attached Table F to the application package.

Note: SIUs include users that truck or haul industrial waste to the POTW. Information for these users must be provided in Table F.

**Item 4.7.** Indicate if the POTW receives or has been notified that it will receive by truck, rail, or dedicated pipe any wastes that are regulated as RCRA hazardous wastes pursuant to 40 CFR 261. If yes, continue to Item 4.8. If no, skip to Item 4.9.

**Item 4.8.** For each hazardous waste received, provide the hazardous waste number, the method by which the waste is received (e.g., by truck, dedicated pipe, rail, etc.), and the amount of waste received annually (specify units).

**Item 4.9.** Answer whether the POTW receives, or has been notified that it will receive, wastewaters that originate from remedial activities, including those undertaken pursuant to Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) and Sections 3004(u) or 3008(h) of RCRA. If yes, continue to Item 4.10. If no, skip to Section 5.

**Item 4.10.** Answer whether the POTW receives (or expects to receive) less than 15 kilograms per month of non-acute hazardous wastes as specified at 40 CFR 261.30(d) and 261.33(e). If yes, skip to Section 5. If no, continue to Item 4.11.

**Item 4.11.** In an attachment to the application, provide an identification and description of the site(s) or facility(ies) at which the wastewater originates; the identities of the wastewater's hazardous constituents, as listed in Appendix VII of 40 CFR 261, if known; and the extent of treatment, if any, the wastewater receives



## General Instructions for Reporting, Sampling, and Analysis

**Important note:** Read these instructions before completing Tables A through E and Section 3 of Form 2A.

### General Items

Complete the applicable tables for each outfall at your facility. Be sure to note the EPA Identification Number, NPDES permit number, facility name, and applicable outfall number at the top of each page of the tables and any associated attachments.

You may report some or all of the required data by attaching separate sheets of paper instead of completing Tables A through E for each of your outfalls, so long as the sheets contain all of the required information and are similar in format to Tables A through E. For example, you may be able to print a report in a compatible format from the data system used in your analysis of metals completed under Table C.

**Note for new dischargers.** Provide all information available to you at the time you complete Form 2A. If you do not have information to respond to an item because your facility has yet to discharge, write or type "data are not available" next to the item on the form. Note that you are required to submit *actual* data no later than 24 months after your facility commences discharge.

### Reporting of Effluent Data

Where effluent data are requested, do not provide information on CSOs. The latter information is requested instead under Section 5 of Form 2A.

Provide data for each outfall through which effluent is discharged. When an applicant has two or more outfalls with substantially identical effluents, the NPDES permitting authority may allow the applicant to test only one outfall and report that quantitative data as applying to the substantially identical outfall. If the permitting authority grants your request, attach a separate sheet to the application form identifying the outfall tested and describing why the other outfall(s) are substantially identical.

At a minimum, effluent testing data must be based on at least three samples taken within 4.5 years prior to the date of the permit application. Samples must be representative of the seasonal variation in the discharge from each outfall. Existing data may be used, if available, in lieu of sampling done solely for the purpose of this application.

All existing data for pollutants specified in Tables A through D that is collected within 4.5 years of the application must be included in the pollutant data summary that you submit. If, however, you sampled for a specific pollutant on a monthly or more frequent basis, it is only necessary, for such pollutant, to summarize all data collected within 1 year of the application.

Except as specified below, all required quantitative data shall be collected in accordance with sufficiently sensitive analytical methods approved under 40 CFR 136 or required under 40 CFR chapter I, subchapter N or O. A method is "sufficiently sensitive" when:

- The method minimum level (ML) is at or below the level of the applicable water quality criterion for the measured pollutant or pollutant parameter.

- The method ML is above the water quality criterion, but the amount of the pollutant or pollutant parameter in the facility's discharge is high enough that the method detects and quantifies the level of the pollutant or pollutant parameter in the discharge.
- The method has the lowest ML of the analytical methods approved under 40 CFR 136 or required under 40 CFR chapter I, subchapter N or O, for the measured pollutant or pollutant parameter.

Consistent with 40 CFR 136, you may provide matrix- or sample-specific MLs rather than the published levels. Further, where you can demonstrate that, despite a good faith effort to use a method that would otherwise meet the definition of "sufficiently sensitive," the analytical results are not consistent with the quality assurance (QA)/quality control (QC) specifications for that method, then the NPDES permitting authority may determine that the method is not performing adequately and the NPDES permitting authority should select a different method from the remaining EPA-approved methods that is sufficiently sensitive consistent with 40 CFR 122.21(e)(3)(i). Where no other EPA-approved methods exist, you must select a method consistent with 40 CFR 122.21(e)(3)(ii).

When there is no analytical method that has been approved under 40 CFR 136; required under 40 CFR chapter I, subchapter N or O, and is not otherwise required by the NPDES permitting authority, you may use any suitable method but shall provide a description of the method. When selecting a suitable method, other factors such as a method's precision, accuracy, or resolution, may be considered when assessing the performance of the method.

Effluent monitoring data must comply with the QA/QC requirements of 40 CFR 136 (and other appropriate QA/QC requirements for standard methods for analytes not addressed by 40 CFR 136).

Clearly specify the units of measure on Tables A through E for each parameter/pollutant analyzed. Values should be reported as concentration or mass, except for flow, temperature, pH, color, and fecal coliform organisms, unless otherwise requested or required by the NPDES permitting authority. Flow, temperature, pH, color, and fecal coliform organisms must be reported as mgd, degrees Celsius (°C), standard units, color units, and most probable number per 100 milliliters (MPN/100 mL), respectively. Use the following abbreviations in the columns requiring "units" in Tables A through D.

Concentration	Mass
ppm = parts per million	lbs = pounds
mg/L = milligrams per liter	ton = tons (English tons)
ppb = parts per billion	mg = milligrams
µg/L = micrograms per liter	g = grams
MPN = most probable number per 100 milliliters	kg = kilograms
	T = tonnes (metric tons)

## General Instructions for Reporting, Sampling, and Analysis Continued

Grab samples must be used for pH, temperature, cyanide, total phenols, residual chlorine, oil and grease, fecal coliform (including *E. coli*), and volatile organic compounds. For all other pollutants, 24-hour composite samples must be used. For a composite sample, only one analysis of the composite of aliquots is required.

The effluent monitoring data provided must include at least the following for each parameter: (1) the maximum daily discharge based upon actual sample values, (2) average daily discharge for all samples, expressed as concentration or mass, and the number of samples used to obtain this value, (3) the analytical method used, and (4) the threshold level (i.e., method detection limit, minimum level, or other designated method endpoints) for the analytical method used.

Metals must be reported as “total recoverable metal,” unless all approved analytical methods for the metal inherently measure only its dissolved form (e.g., hexavalent chromium) or otherwise directed by the NPDES permitting authority.

### Sampling

The collection of samples for the reported analyses should be supervised by a person experienced in performing sampling of domestic wastewater. You may contact your NPDES permitting authority for detailed guidance on sampling techniques and for answers to specific questions. See Exhibit 2A–1 for contact information. Any specific requirements in the analytical methods—for example, for sample containers, sample preservation, holding

times, and the collection of duplicate samples—must be followed. The time when you sample should be representative of your normal operation, to the extent feasible, with your treatment system operating properly with no system upsets. Collect samples from the center of the flow channel, where turbulence is at a maximum, at a site specified in your present NPDES permit, or at any site adequate for the collection of a representative sample.

### Further Requirements for Table E, Whole Effluent Toxicity Testing

Each applicant required to perform WET testing must provide results of a minimum of four quarterly tests for a year, from the year preceding the permit application, *or* the results from four tests performed at least annually in the 4.5-year period prior to the application, provided the results show no appreciable toxicity using a safety factor determined by the NPDES permitting authority.

Applicants must conduct tests with multiple species (no less than two species; e.g., fish, invertebrate, plant) and test for acute or chronic toxicity, depending on the range of receiving water dilution. See 40 CFR 122.21(j)(5)(v) for further details.

WET testing must be conducted using methods approved under 40 CFR 136. West coast facilities in Washington, Oregon, California, Alaska, Hawaii, and the Pacific Territories are exempted from 40 CFR 136 chronic methods and must use alternative guidance as directed by the NPDES permitting authority.



or will receive before entering the POTW. Answer “Yes” to Item 4.11 when you have completed and attached the information to the application package.

**Section 5. Combined Sewer Overflows**

**CSO Map and Diagram**

**Item 5.1.** Indicate if the treatment works has a combined sewer system. If yes, continue to Item 5.2. If no, skip to Section 6.

**Item 5.2.** Attach a CSO system map to the application. The map should indicate: (1) all CSO discharge points, (2) sensitive use areas potentially affected by CSOs (e.g., beaches, drinking water supplies, shellfish beds, sensitive aquatic ecosystems, and outstanding national resource waters), and (3) waters supporting threatened and endangered species potentially affected by CSOs. Answer “Yes” to Item 5.2 when you have completed the map and attached it to the application package.

**Item 5.3.** Prepare a diagram of the CSO collection system. The diagram should show the following: (1) the location of major sewer trunk lines, both combined and separate sanitary; (2) the locations of points where separate sanitary sewers feed into the combined sewer system; (3) in-line and off-line storage structures; (4) the locations of flow-regulating devices; and (5) the locations of pump stations. Answer “Yes” to Item 5.3 when you have completed the diagram and attached it to the application package.

**CSO Outfall Description**

**Item 5.4.** Provide the following information for each CSO outfall: (1) outfall number; (2) state, county, city or town and ZIP code in which the outfall is located; (3) latitude and longitude of the outfall, to the nearest second, (4) distance of the outfall from shore and depth of the outfall below water surface. Latitude and longitude coordinates may be obtained in a variety of ways, including use of hand held devices (e.g., a GPS enabled smartphone), internet mapping tools (e.g., <https://mynasadata.larc.nasa.gov/latitudelongitude-finder/>), geographic information systems (e.g., ArcView), or paper maps from trusted sources (e.g., USGS). The location of each CSO outfall (i.e., where the coordinates are collected) shall be the point where the discharge is released into a water of the United States.

**CSO Monitoring**

**Item 5.5.** Indicate whether the POTW has monitored any of the following items in the past year for each of its CSO outfalls: (1) rainfall, (2) CSO flow volume, (3) CSO pollutant concentrations; (4) receiving water quality, (5) CSO frequency, and (6) number of storm events.

**CSO Events in Past Year**

**Item 5.6.** For each CSO outfall, record (1) the number of CSO events in the past year, (2) the average duration in hours per event, (3) the average volume per CSO event in million gallons, and (4) the minimum rainfall that caused a CSO event in inches of rainfall in the past year. Note whether your responses for sub-items (2) through (4) above are based on actual or estimated data.

**CSO Receiving Waters**

**Item 5.7.** For each CSO outfall, record the following receiving water information: (1) name of receiving water; (2) name of watershed/stream system and the U.S. Soil Conservation Service

watershed (14-digit) code, if known; (3) name of the state management/river basin and the USGS 8-digit hydrologic cataloging unit code, if known; and (4) a description of any known water quality impacts on the receiving water caused by the CSO (e.g., permanent or intermittent beach closings, permanent or intermittent shellfish bed closings, fish kills, fish advisories, other recreational loss, or exceedance of any applicable state water quality standard).

**Section 6. Checklist and Certification Statement**

**Item 6.1.** Review the checklist provided. In Column 1, mark the sections of Form 2A that you have completed and are submitting with your application. In Column 2, indicate for each section whether you are submitting attachments.

**Item 6.2.** The Clean Water Act provides for severe penalties for submitting false information on this application form. CWA Section 309(c)(2) provides that “Any person who knowingly makes any false statement, representation, or certification in any application, ...shall upon conviction, be punished by a fine of no more than \$10,000 or by imprisonment for not more than six months, or both.”

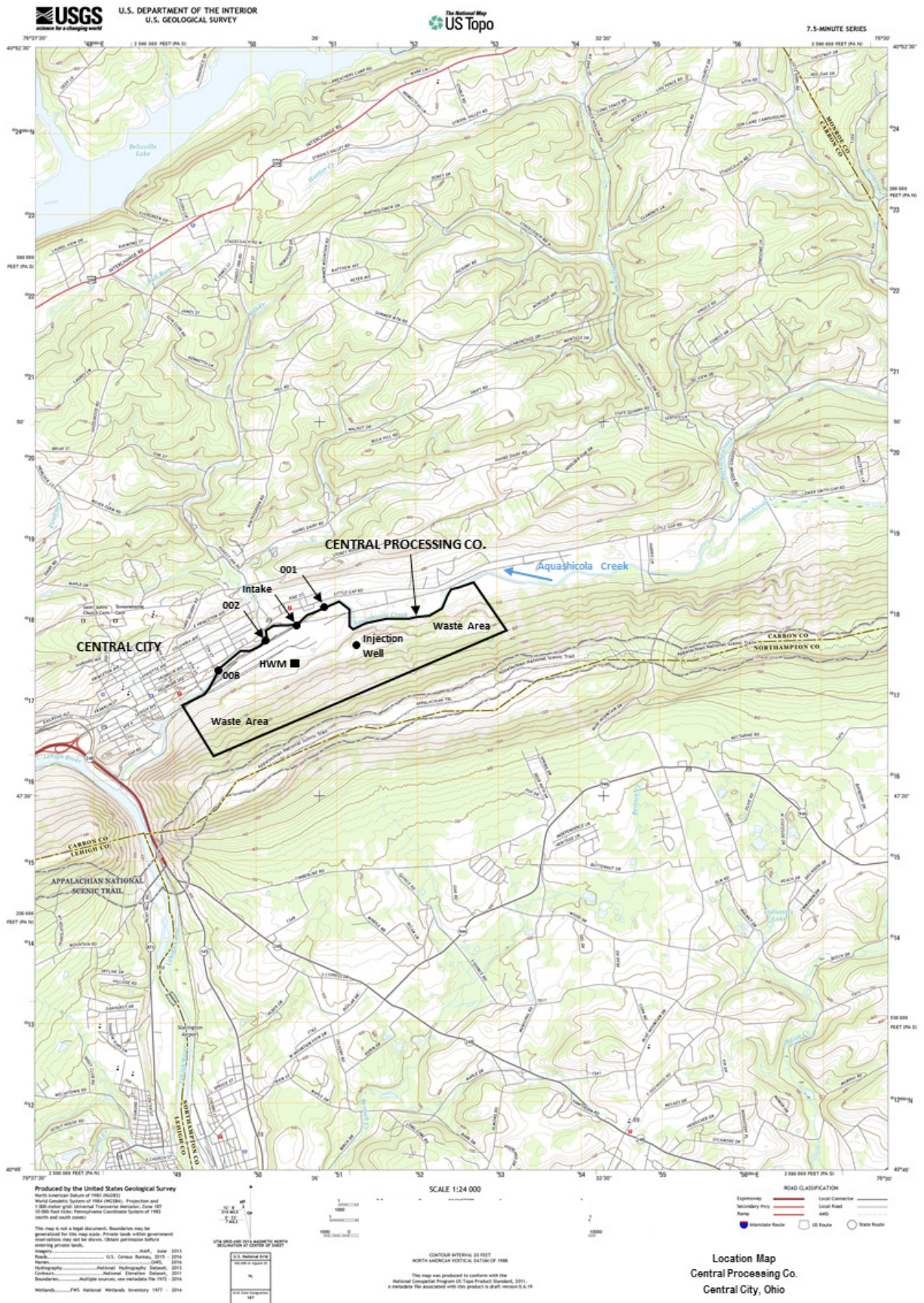
**FEDERAL REGULATIONS AT 40 CFR 122.22 REQUIRE THIS APPLICATION TO BE SIGNED AS FOLLOWS:**

- A. For a corporation, by a responsible corporate officer. For the purpose of this section, a responsible corporate officer means: (1) a president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy- or decision-making functions for the corporation, or (2) the manager of one or more manufacturing, production, or operating facilities, provided the manager is authorized to make management decisions which govern the operation of the regulated facility including having the explicit or implicit duty of making major capital investment recommendations, and initiating and directing other comprehensive measures to assure long term environmental compliance with environmental laws and regulations; the manager can ensure that the necessary systems are established or actions taken to gather complete and accurate information for permit application requirements; and where authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.
- B. For a partnership or sole proprietorship, by a general partner or the proprietor, respectively.
- C. For a municipality, state, federal, or other public facility, by either a principal executive officer or ranking elected official. For purposes of this section, a principal executive officer of a federal agency includes: (1) The chief executive officer of the agency, or (2) a senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., Regional Administrators of EPA).

**END**

**Submit your completed Form 2A and  
all associated attachments  
(and any other required NPDES application forms)  
to your NPDES permitting authority.**

# Exhibit 2A-2. Example Topographic Map





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## FORM 2A—GLOSSARY

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**Note:** This glossary includes terms used in the various NPDES application forms, including Form 2A. The definitions are from the NPDES regulations at 40 CFR 122.2 unless otherwise specified. If you have any questions concerning the meaning of any of these terms, contact your NPDES permitting authority.

**ANIMAL FEEDING OPERATION** (defined at § 122.23) means a lot or facility (other than an aquatic animal production facility) where the following conditions are met;

- Animals (other than aquatic animals) have been, are, or will be stabled or confined and fed or maintained for a total of 45 days or more in any 12-month period; and
- Crops, vegetation, forage growth, or post-harvest residues are not sustained in the normal growing season over any portion of the lot or facility.

**APPLICATION** means the EPA standard national forms for applying for a permit, including any additions, revisions, or modifications to the forms; or forms approved by EPA for use in approved states, including any approved modifications or revisions.

**APPROVED PROGRAM** or **APPROVED STATE** means a State or interstate program which has been approved or authorized by EPA under part 123.

**AQUACULTURE PROJECT** (defined at § 122.25) means a defined managed water area which uses discharges of pollutants into that designated area for the maintenance or production of harvestable freshwater, estuarine, or marine plants or animals. **DESIGNATED PROJECT AREA** means the portions of the waters of the United States within which the permittee or permit applicant plans to confine the cultivated species, using a method or plan or operation (including, but not limited to, physical confinement) which, on the basis of reliable scientific evidence, is expected to ensure that specific individual organisms comprising an aquaculture crop will enjoy increased growth attributable to the discharge of pollutants, and be harvested within a defined geographic area.

**AVERAGE MONTHLY DISCHARGE LIMITATION** means the highest allowable average of daily discharges over a calendar month, calculated as the sum of all daily discharges measured during that month divided by the number of daily discharges measured during that month.

**AVERAGE WEEKLY DISCHARGE LIMITATION** means the highest allowable average of daily discharges over a calendar week, calculated as the sum of all daily discharges measured during a calendar week divided by the number of daily discharges measured during that week.

**BEST MANAGEMENT PRACTICES (BMPs)** means schedules of activities, prohibitions of practices, maintenance procedures, and other management practices to prevent or reduce the pollution of waters of the United States. BMPs include treatment requirements, operation procedures, and practices to control plant site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage.

**BIOSOLIDS** (*see sewage sludge*).

**BYPASS** (defined at § 122.41(m)) means the intentional diversion of waste streams from any portion of a treatment facility.

**COMBINED SEWER OVERFLOW (CSO)** means a discharge from a combined sewer system (CSS) at a point prior to the Publicly Owned Treatment Works (POTW) Treatment Plant (defined at § 403.3(r)).

**COMBINED SEWER SYSTEM (CSS)** means a wastewater collection system owned by a State or municipality (as defined by section 502(4) of the CWA) which conveys sanitary wastewaters (domestic, commercial and industrial wastewaters) and storm water through a single-pipe system to a Publicly Owned Treatment Works (POTW) Treatment Plant (as defined at § 403.3(r)).

**CONCENTRATED ANIMAL FEEDING OPERATION** (defined at § 122.23) means an animal feeding operation that is defined as a Large CAFO or as a Medium CAFO by the terms of (A) or (B) below, or that is designated as a CAFO in accordance with 40 CFR 122.23(c). Two or more AFOs under common ownership are considered to be a single AFO for the purposes of determining the number of animals at an operation, if they adjoin each other or if they use a common area or system for the disposal of wastes.

A. **LARGE CONCENTRATED ANIMAL FEEDING OPERATION (LARGE CAFO)** means an AFO that stables or confines as many as or more than the numbers of animals specified in any of the following categories:

1. 700 mature dairy cows, whether milked or dry;
2. 1,000 veal calves;
3. 1,000 cattle other than mature dairy cows or veal calves. Cattle includes but is not limited to heifers, steers, bulls and cow/calf pairs;
4. 2,500 swine each weighing 55 pounds or more;
5. 10,000 swine each weighing less than 55 pounds;
6. 500 horses;
7. 10,000 sheep or lambs;

8. 55,000 turkeys;
9. 30,000 laying hens or broilers, if the AFO uses a liquid manure handling system;
10. 125,000 chickens (other than laying hens), if the AFO uses other than a liquid manure handling system;
11. 82,000 laying hens, if the AFO uses other than a liquid manure handling system;
12. 30,000 ducks (if the AFO uses other than a liquid manure handling system); or
13. 5,000 ducks (if the AFO uses a liquid manure handling system).

**B. MEDIUM CONCENTRATED ANIMAL FEEDING OPERATION (MEDIUM CAFO)** means any AFO with the type and number of animals that fall within any of the ranges listed below and which has been defined or designated as a CAFO. An AFO is defined as a Medium CAFO if:

1. The type and number of animals that it stables and confines falls within any of the following ranges:
  - a. 200 to 699 mature dairy cows, whether milked or dry;
  - b. 300 to 999 veal calves;
  - c. 300 to 999 cattle other than mature dairy cows or veal calves. Cattle includes but is not limited to heifers, steers, bulls and cow/calf pairs;
  - d. 750 to 2,499 swine each weighing 55 pounds or more;
  - e. 3,000 to 9,999 swine each weighing less than 55 pounds;
  - f. 150 to 499 horses;
  - g. 3,000 to 9,999 sheep or lambs;
  - h. 16,500 to 54,999 turkeys;
  - i. 9,000 to 29,999 laying hens or broilers, if the AFO uses a liquid manure handling system;
  - j. 37,500 to 124,999 chickens (other than laying hens), if the AFO uses other than a liquid manure handling system;
  - k. 25,000 to 81,999 laying hens, if the AFO uses other than a liquid manure handling system;
  - l. 10,000 to 29,999 ducks (if the AFO uses other than a liquid manure handling system); or
  - m. 1,500 to 4,999 ducks (if the AFO uses a liquid manure handling system); and
2. Either one of the following conditions are met:
  - a. Pollutants are discharged into waters of the United States through a man-made ditch, flushing system, or other similar man-made device; or
  - b. Pollutants are discharged directly into waters of the United States which originate outside of and pass over, across, or through the facility or otherwise come into direct contact with animals confined in the operation.

**CONCENTRATED AQUATIC ANIMAL PRODUCTION FACILITY** (defined at § 122.24) means a hatchery, fish farm, or other facility which contains, grows, or holds aquatic animals in either of the following categories, or which the Director designates as such on a case-by-case basis:

- A. Cold water fish species or other cold water aquatic animals including, but not limited to, the *Salmonidae* family of fish (e.g., trout and salmon) in ponds, raceways, or other similar structures which discharge at least 30 days per year but does not include:
  1. Facilities which produce less than 9,090 harvest weight kilograms (approximately 20,000 pounds) of aquatic animals per year; and
  2. Facilities which feed less than 2,272 kilograms (approximately 5,000 pounds) of food during the calendar month of maximum feeding.
- B. Warm water fish species or other warm water aquatic animals including, but not limited to, the *Ameiuridae*, *Cetrarchidae*, and *Cyprinidae* families of fish (e.g., respectively, catfish, sunfish, and minnows) in ponds, raceways, or other similar structures which discharge at least 30 days per year, but does not include:
  1. Closed ponds which discharge only during periods of excess runoff; or
  2. Facilities which produce less than 45,454 harvest weight kilograms (approximately 100,000 pounds) of aquatic animals per year.

**CWA** means the Clean Water Act (formerly referred to as the Federal Water Pollution Control Act or Federal Water Pollution Control Act Amendments of 1972) Public Law 92–500, as amended by Public Law 95–217, Public Law 95–576, Public Law 96–483 and Public Law 97–117, 33 U.S.C. 1251 *et seq.*

**CWA AND REGULATIONS** means the Clean Water Act (CWA) and applicable regulations promulgated thereunder. In the case of an approved State program, it includes State program requirements.

**DAILY DISCHARGE** means the “discharge of a pollutant” measured during a calendar day or any 24-hour period that reasonably represents the calendar day for purposes of sampling. For pollutants with limitations expressed in units of mass, the “daily discharge” is calculated as the total mass of the pollutant discharged over the day. For pollutants with limitations expressed in other units of measurement, the “daily discharge” is calculated as the average measurement of the pollutant over the day.

**DIRECT DISCHARGE** means the “discharge of a pollutant.”

**DIRECTOR** means the Regional Administrator or the State Director, as the context requires, or an authorized representative. When there is no “approved State program,” and there is an EPA administered program, “Director” means the Regional Administrator. When there is an approved State program, “Director” normally means the State Director. In some circumstances, however, EPA retains the authority to take certain actions even when there is an approved State program. (For example, when EPA has issued an NPDES permit prior to the approval of a State program, EPA may retain jurisdiction over that permit after program approval, see § 123.1.) In such cases, the term “Director” means the Regional Administrator and not the State Director.

**DISCHARGE (OF A POLLUTANT)** means:

- Any addition of any pollutant or combination of pollutants to waters of the United States from any point source; or
- Any addition of any pollutant or combination of pollutants to the waters of the contiguous zone or the ocean from any point source other than a vessel or other floating craft which is being used as a means of transportation.

This definition includes discharges into waters of the United States from: surface runoff which is collected or channelled by man; discharges through pipes, sewers, or other conveyances owned by a State, municipality, or other person which do not lead to a treatment works; and discharges through pipes, sewers, or other conveyances, leading into privately owned treatment works. This term does not include an addition of pollutants by any “indirect discharger”.

**DISCHARGE MONITORING REPORT** means the EPA uniform national form, including any subsequent additions, revisions, or modifications for the reporting of self-monitoring results by permittees. DMRs must be used by “approved States” as well as by EPA. EPA will supply DMRs to any approved State upon request. The EPA national forms may be modified to substitute the state agency name, address, logo, and other similar information, as appropriate, in place of EPA’s.

**DRAFT PERMIT** means a document prepared under § 124.6 indicating the Director’s tentative decision to issue or deny, modify, revoke and reissue, terminate, or reissue a “permit.” A notice of intent to terminate a permit, and a notice of intent to deny a permit, as discussed in § 124.5, are types of “draft permits.” A denial of a request for modification, revocation and reissuance, or termination, as discussed in § 124.5, is not a “draft permit.” A “proposed permit” is not a “draft permit.”

**EFFLUENT LIMITATION** means any restriction imposed by the Director on quantities, discharge rates, and concentrations of “pollutants” which are “discharged” from “point sources” into “waters of the United States,” the waters of the “contiguous zone,” or the ocean.

**EFFLUENT LIMITATIONS GUIDELINES** means a regulation published by the Administrator under section 304(b) of the CWA to adopt or revise “effluent limitations.”

**ENVIRONMENTAL PROTECTION AGENCY (EPA)** means the United States Environmental Protection Agency.

**FACILITY or ACTIVITY** means any NPDES “point source” or any other facility or activity (including land or appurtenances thereto) that is subject to regulation under the NPDES program.

**GENERAL PERMIT** means an NPDES “permit” issued under § 122.28 authorizing a category of discharges under the CWA within a geographical area.

**HAZARDOUS SUBSTANCE** means any substance designated under 40 CFR part 116 pursuant to section 311 of the CWA.

**INDIAN COUNTRY (or INDAN LANDS)** means:

- All land within the limits of any Indian reservation under the jurisdiction of the United States Government, notwithstanding the issuance of any patent, and, including rights-of-way running through the reservation;
- All dependent Indian communities with the borders of the United States whether within the originally or subsequently acquired territory thereof, and whether within or without the limits of a state; and
- All Indian allotments, the Indian titles to which have not been extinguished, including rights-of-way running through the same.

**INDIAN TRIBE** means any Indian Tribe, band, group, or community recognized by the Secretary of the Interior and exercising governmental authority over a Federal Indian reservation.

**INDIRECT DISCHARGE** means a nondomestic discharger introducing “pollutants” to a “publicly owned treatment works.”

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**FORM 2A—GLOSSARY CONTINUED**

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**LARGE MUNICIPAL SEPARATE STORM SEWER SYSTEM** (defined at § 122.26(b)(4)) means all municipal separate storm sewers that are either:

- (i) Located in an incorporated place with a population of 250,000 or more as determined by the 1990 Decennial Census by the Bureau of the Census (Appendix F of 40 CFR 122); or
- (ii) Located in the counties listed in appendix H of 40 CFR 122, except municipal separate storm sewers that are located in the incorporated places, townships or towns within such counties; or
- (iii) Owned or operated by a municipality other than those described in paragraphs (i) or (ii) and that are designated by the Director as part of the large or medium municipal separate storm sewer system due to the interrelationship between the discharges of the designated storm sewer and the discharges from municipal separate storm sewers described under paragraphs (i) or (ii). In making this determination the Director may consider the following factors:
  - (A) Physical interconnections between the municipal separate storm sewers;
  - (B) The location of discharges from the designated municipal separate storm sewer relative to discharges from municipal separate storm sewers described in paragraph (i);
  - (C) The quantity and nature of pollutants discharged to waters of the United States;
  - (D) The nature of the receiving waters; and
  - (E) Other relevant factors; or
- (iv) The Director may, upon petition, designate as a large municipal separate storm sewer system, municipal separate storm sewers located within the boundaries of a region defined by a storm water management regional authority based on a jurisdictional, watershed, or other appropriate basis that includes one or more of the systems described in paragraphs (i), (ii), (iii).

**LOG SORTING AND LOG STORAGE FACILITIES** (defined at § 122.27) means facilities whose discharges result from the holding of unprocessed wood, for example, logs or roundwood with bark or after removal of bark held in self-contained bodies of water (mill ponds or log ponds) or stored on land where water is applied intentionally on the logs (wet decking). (See 40 CFR 429, subpart I, including the effluent limitations guidelines.)

**MAJOR FACILITY** means any NPDES “facility or activity” classified as such by the Regional Administrator, or, in the case of “approved State programs,” the Regional Administrator in conjunction with the State Director.

**MAXIMUM DAILY DISCHARGE LIMITATION** means the highest allowable “daily discharge.”

**MEDIUM MUNICIPAL SEPARATE STORM SEWER SYSTEM** (defined at § 122.26(b)(7)) means all municipal separate storm sewers that are either:

- (i) Located in an incorporated place with a population of 100,000 or more but less than 250,000, as determined by the 1990 Decennial Census by the Bureau of the Census (appendix G of 40 CFR 122); or
- (ii) Located in the counties listed in appendix I of 40 CFR 122, except municipal separate storm sewers that are located in the incorporated places, townships or towns within such counties; or
- (iii) Owned or operated by a municipality other than those described in paragraph (i) or (ii) and that are designated by the Director as part of the large or medium municipal separate storm sewer system due to the interrelationship between the discharges of the designated storm sewer and the discharges from municipal separate storm sewers described under paragraph (i) or (ii). In making this determination the Director may consider the following factors:
  - (A) Physical interconnections between the municipal separate storm sewers;
  - (B) The location of discharges from the designated municipal separate storm sewer relative to discharges from municipal separate storm sewers described in paragraph (i);
  - (C) The quantity and nature of pollutants discharged to waters of the United States;
  - (D) The nature of the receiving waters; or
  - (E) Other relevant factors; or
- (iv) The Director may, upon petition, designate as a medium municipal separate storm sewer system, municipal separate storm sewers located within the boundaries of a region defined by a storm water management regional authority based on a jurisdictional, watershed, or other appropriate basis that includes one or more of the systems described in paragraphs (i), (ii), (iii) of this section.

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**FORM 2A—GLOSSARY CONTINUED**

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**MUNICIPALITY** means a city, town, borough, county, parish, district, association, or other public body created by or under State law and having jurisdiction over disposal of sewage, industrial wastes, or other wastes, or an Indian tribe or an authorized Indian tribal organization, or a designated and approved management agency under section 208 of the CWA.

**MUNICIPAL SEPARATE STORM SEWER** (defined at § 122.26(b)(8)) means a conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, man-made channels, or storm drains):

- Owned or operated by a State, city, town, borough, county, parish, district, association, or other public body (created by or pursuant to State law) having jurisdiction over disposal of sewage, industrial wastes, stormwater, or other wastes, including special districts under State law such as a sewer district, flood control district or drainage district, or similar entity, or an Indian tribe or an authorized Indian tribal organization, or a designated and approved management agency under section 208 of the CWA that discharges to waters of the United States.
- Designed or used for collecting or conveying stormwater.
- Which is not a combined sewer; and
- Which is not part of a POTW as defined at 40 CFR 122.2.

**MUNICIPAL SLUDGE** (*see sewage sludge*)

**NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)** means the national program for issuing, modifying, revoking and reissuing, terminating, monitoring and enforcing permits, and imposing and enforcing pretreatment requirements, under sections 307, 402, 318, and 405 of the CWA. The term includes an “approved program.”

**NEW DISCHARGER** means any building, structure, facility, or installation:

- From which there is or may be a “discharge of pollutants;”
- That did not commence the “discharge of pollutants” at a particular “site” prior to August 13, 1979;
- Which is not a “new source;” and
- Which has never received a finally effective NPDES permit for discharges at that “site.”

This definition includes an “indirect discharger” which commences discharging into “waters of the United States” after August 13, 1979. It also means any existing mobile point source (other than an offshore or coastal oil and gas exploratory drilling rig or a coastal oil and gas developmental drilling rig) such as a seafood processing rig, seafood processing vessel, or aggregate plant, that begins discharging at a “site” for which it does not have a permit; and any offshore or coastal mobile oil and gas exploratory drilling rig or coastal mobile oil and gas developmental drilling rig that commences the discharge of pollutants after August 13, 1979, at a “site” under EPA’s permitting jurisdiction for which it is not covered by an individual or general permit and which is located in an area determined by the Regional Administrator in the issuance of a final permit to be an area of biological concern. In determining whether an area is an area of biological concern, the Regional Administrator shall consider the factors specified in 40 CFR 125.122(a)(1) through (10).

An offshore or coastal mobile exploratory drilling rig or coastal mobile developmental drilling rig will be considered a “new discharger” only for the duration of its discharge in an area of biological concern.

**NEW SOURCE** means any building, structure, facility, or installation from which there is or may be a “discharge of pollutants,” the construction of which commenced:

- After promulgation of standards of performance under section 306 of the CWA which are applicable to such source, or
- After proposal of standards of performance in accordance with section 306 of the CWA which are applicable to such source, but only if the standards are promulgated in accordance with section 306 within 120 days of their proposal.

**OWNER OR OPERATOR** means the owner or operator of any “facility or activity” subject to regulation under the NPDES program.

**PERMIT** means an authorization, license, or equivalent control document issued by EPA or an “approved State” to implement the requirements of this part and parts 123 and 124. “Permit” includes an NPDES “general permit” (§ 122.28). Permit does not include any permit which has not yet been the subject of final agency action, such as a “draft permit” or a “proposed permit.”

**PESTICIDE DISCHARGES TO WATERS OF THE UNITED STATES FROM PESTICIDE APPLICATION** means the application of biological pesticides, and the application of chemical pesticides that leave a residue, from point sources to waters of the United States. In the context of this definition of pesticide discharges to waters of the United States from pesticide application, this does not include agricultural storm water discharges and return flows from irrigated agriculture, which are excluded by law (33 U.S.C. 1342(l); 33 U.S.C. 1362(14)).

**PESTICIDE RESIDUE** for the purpose of determining whether a NPDES permit is needed for discharges to waters of the United States from pesticide application, means that portion of a pesticide application that is discharged from a point source to waters of the United States and no longer provides pesticidal benefits. It also includes any degradates of the pesticide.

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**FORM 2A—GLOSSARY CONTINUED**

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**POINT SOURCE** means any discernible, confined, and discrete conveyance, including but not limited to, any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, landfill leachate collection system, vessel or other floating craft from which pollutants are or may be discharged. This term does not include return flows from irrigated agriculture or agricultural stormwater runoff. (See § 122.3).

**POLLUTANT** means dredged spoil, solid waste, incinerator residue, filter backwash, sewage, garbage, sewage sludge, munitions, chemical wastes, biological materials, radioactive materials (except those regulated under the Atomic Energy Act of 1954, as amended (42 U.S.C. 2011 *et seq.*)), heat, wrecked or discarded equipment, rock, sand, cellar dirt and industrial, municipal, and agricultural waste discharged into water. It does not mean:

- Sewage from vessels; or
- Water, gas, or other material which is injected into a well to facilitate production of oil or gas, or water derived in association with oil and gas production and disposed of in a well, if the well used either to facilitate production or for disposal purposes is approved by authority of the State in which the well is located, and if the State determines that the injection or disposal will not result in the degradation of ground or surface water resources. Note: Radioactive materials covered by the Atomic Energy Act are those encompassed in its definition of source, byproduct, or special nuclear materials. Examples of materials not covered include radium and accelerator-produced isotopes. See *Train v. Colorado Public Interest Research Group, Inc.*, 426 U.S. 1 (1976).

**PRIMARY INDUSTRY CATEGORY** means any industry category listed in the NRDC settlement agreement (*Natural Resources Defense Council et al. v. Train*, 8 E.R.C. 2120 (D.D.C. 1976), modified 12 E.R.C. 1833 (D.D.C. 1979)); also listed in appendix A of part 122.

**PRIVATELY OWNED TREATMENT WORKS** means any device or system which is (1) used to treat wastes from any facility whose operator is not the operator of the treatment works and (2) not a "POTW."

**PROCESS WASTEWATER** means any water which, during manufacturing or processing, comes into direct contact with or results from the production or use of any raw material, intermediate product, finished product, byproduct, or waste product.

**PROPOSED PERMIT** means a state NPDES "permit" prepared after the close of the public comment period (and, when applicable, any public hearing and administrative appeals) which is sent to EPA for review before final issuance by the State. A "proposed permit" is not a "draft permit."

**PUBLICLY OWNED TREATMENT WORKS** or **POTW** (defined at § 403.3) means a treatment works as defined by CWA Section 212, which is owned by a state or municipality (as defined by CWA Section 502(4)). This definition includes any devices or systems used in the storage, treatment, recycling, and reclamation) of municipal sewage or industrial wastes of a liquid nature. This definition also includes sewers, pipes, and other conveyances only if they convey wastewater to a POTW. The term also means the municipality as defined in CWA Section 502(4), which has jurisdiction over the indirect discharges to and the discharges from such a treatment works.

**REGIONAL ADMINISTRATOR** means the Regional Administrator of the appropriate Regional Office of the Environmental Protection Agency or the authorized representative of the Regional Administrator.

**ROCK CRUSHING AND GRAVEL WASHING FACILITIES** (defined at § 122.27) means facilities which process crushed and broken stone, gravel, and riprap (See 40 CFR 436, subpart B, including the effluent limitations guidelines).

**SCHEDULE OF COMPLIANCE** means a schedule of remedial measures included in a "permit", including an enforceable sequence of interim requirements (for example, actions, operations, or milestone events) leading to compliance with the CWA and regulations.

**SECONDARY INDUSTRY CATEGORY** means any industry category which is not a primary industry category.

**SEWAGE FROM VESSELS** means human body wastes and the wastes from toilets and other receptacles intended to receive or retain body wastes that are discharged from vessels and regulated under section 312 of the CWA, except that with respect to commercial vessels on the Great Lakes this term includes graywater. For the purposes of this definition, "graywater" means galley, bath, and shower water.

**SEWAGE SLUDGE** means any solid, semi-solid, or liquid residue removed during the treatment of municipal waste water or domestic sewage. Sewage sludge includes, but is not limited to, solids removed during primary, secondary, or advanced waste water treatment, scum, septage, portable toilet pumpings, type III marine sanitation device pumpings (33 CFR 159), and sewage sludge products. Sewage sludge does not include grit or screenings, or ash generated during the incineration of sewage sludge.

**SILVICULTURAL POINT SOURCE** (defined at § 122.27) means any discernible, confined, and discrete conveyance related to rock crushing, gravel washing, log sorting, or log storage facilities which are operated in connection with silvicultural activities and from which pollutants are discharged into waters of the United States. This term does not include non-point source silvicultural activities such as nursery operations, site preparation, reforestation and subsequent cultural treatment, thinning, prescribed burning, pest and fire control, harvesting operations, surface drainage, or road construction and maintenance from which there is natural runoff. However, some of these activities (such as stream crossing for roads) may involve point source discharges of dredged or fill material which may require a CWA Section 404 permit (see 33 CFR 209.120 and part 233).



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**FORM 2A—GLOSSARY CONTINUED**

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**SITE** means the land or water area where any “facility or activity” is physically located or conducted, including adjacent land used in connection with the facility or activity.

**SLUDGE-ONLY FACILITY** means any “treatment works treating domestic sewage” whose methods of sewage sludge use or disposal are subject to regulations promulgated pursuant to section 405(d) of the CWA and is required to obtain a permit under § 122.1(b)(2).

**STANDARDS FOR SEWAGE SLUDGE USE OR DISPOSAL** means the regulations promulgated pursuant to section 405(d) of the CWA which govern minimum requirements for sludge quality, management practices, and monitoring and reporting applicable to sewage sludge or the use or disposal of sewage sludge by any person.

**STATE** means any of the 50 States, the District of Columbia, Guam, the Commonwealth of Puerto Rico, the Virgin Islands, American Samoa, the Commonwealth of the Northern Mariana Islands, the Trust Territory of the Pacific Islands, or an Indian Tribe as defined in these regulations which meets the requirements of § 123.31 of this chapter.

**STATE DIRECTOR** means the chief administrative officer of any State or interstate agency operating an “approved program,” or the delegated representative of the State Director. If responsibility is divided among two or more State or interstate agencies, “State Director” means the chief administrative officer of the State or interstate agency authorized to perform the particular procedure or function to which reference is made.

**STORMWATER** (or **STORM WATER**) (defined at § 122.26(b)(13)) means stormwater runoff, snow melt runoff, and surface runoff and drainage.

**STORMWATER DISCHARGE ASSOCIATED WITH INDUSTRIAL ACTIVITY** (defined at § 122.26(b)(14)) means the discharge from any conveyance that is used for collecting and conveying stormwater and that is directly related to manufacturing, processing or raw materials storage areas at an industrial plant. The term does not include discharges from facilities or activities excluded from the NPDES program under this part 122. For the categories of industries identified in this section, the term includes, but is not limited to, stormwater discharges from industrial plant yards; immediate access roads and rail lines used or traveled by carriers of raw materials, manufactured products, waste material, or by-products used or created by the facility; material handling sites; refuse sites; sites used for the application or disposal of process waste waters (as defined at 40 CFR 401); sites used for the storage and maintenance of material handling equipment; sites used for residual treatment, storage, or disposal; shipping and receiving areas; manufacturing buildings; storage areas (including tank farms) for raw materials, and intermediate and final products; and areas where industrial activity has taken place in the past and significant materials remain and are exposed to stormwater. For the purposes of this paragraph, material handling activities include storage, loading and unloading, transportation, or conveyance of any raw material, intermediate product, final product, by-product or waste product. The term excludes areas located on plant lands separate from the plant's industrial activities, such as office buildings and accompanying parking lots as long as the drainage from the excluded areas is not mixed with stormwater drained from the above described areas. Industrial facilities (including industrial facilities that are federally, State, or municipally owned or operated that meet the description of the facilities listed in paragraphs 1 through 14 below) include those facilities designated under the provisions of 40 CFR 122.26(a)(1)(v). The following categories of facilities are considered to be engaging in “industrial activity” for purposes of 40 CFR 122.26(b)(14):

1. Facilities subject to stormwater effluent limitations guidelines, new source performance standards, or toxic pollutant effluent standards under 40 CFR Subchapter N (except facilities with toxic pollutant effluent standards which are exempted under paragraph 11 below);
2. Facilities classified as Standard Industrial Classification 24, Industry Group 241 that are rock crushing, gravel washing, log sorting, or log storage facilities operated in connection with silvicultural activities defined in 40 CFR 122.27(b)(2)–(3) and Industry Groups 242 through 249; 26 (except 265 and 267), 28 (except 283), 29, 311, 32 (except 323), 33, 3441, 373; (not included are all other types of silvicultural facilities);
3. Facilities classified as Standard Industrial Classifications 10 through 14 (mineral industry) including active or inactive mining operations (except for areas of coal mining operations no longer meeting the definition of a reclamation area under 40 CFR 434.11(1) because the performance bond issued to the facility by the appropriate SMCRA authority has been released, or except for areas of non-coal mining operations which have been released from applicable State or Federal reclamation requirements after December 17, 1990) and oil and gas exploration, production, processing, or treatment operations, or transmission facilities that discharge stormwater contaminated by contact with or that has come into contact with, any overburden, raw material, intermediate products, finished products, byproducts or waste products located on the site of such operations; (inactive mining operations are mining sites that are not being actively mined, but which have an identifiable owner/operator; inactive mining sites do not include sites where mining claims are being maintained prior to disturbances associated with the extraction, beneficiation, or processing of mined materials, nor sites where minimal activities are undertaken for the sole purpose of maintaining a mining claim);
4. Hazardous waste treatment, storage, or disposal facilities, including those that are operating under interim status or a permit under subtitle C of RCRA;
5. Landfills, land application sites, and open dumps that receive or have received any industrial wastes (waste that is received from any of the facilities described under this subsection) including those that are subject to regulation under subtitle D of RCRA;
6. Facilities involved in the recycling of materials, including metal scrapyards, battery reclaimers, salvage yards, and automobile junkyards, including but limited to those classified as Standard Industrial Classification 5015 and 5093;

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**FORM 2A—GLOSSARY CONTINUED**

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7. Steam electric power generating facilities, including coal handling sites;
8. Transportation facilities classified as Standard Industrial Classifications 40, 41, 42 (except 4221–25), 43, 44, 45, and 5171 which have vehicle maintenance shops, equipment cleaning operations, or airport deicing operations. Only those portions of the facility that are either involved in vehicle maintenance (including vehicle rehabilitation, mechanical repairs, painting, fueling, and lubrication), equipment cleaning operations, airport deicing operations, or which are otherwise identified under paragraphs 1–7 or 9–11 are associated with industrial activity;
9. Treatment works treating domestic sewage or any other sewage sludge or wastewater treatment device or system, used in the storage treatment, recycling, and reclamation of municipal or domestic sewage, including land dedicated to the disposal of sewage sludge that are located within the confines of the facility, with a design flow of 1.0 mgd or more, or required to have an approved pretreatment program under 40 CFR 403. Not included are farm lands, domestic gardens or lands used for sludge management where sludge is beneficially reused and which are not physically located in the confines of the facility, or areas that are in compliance with section 405 of the CWA;
10. Construction activity including clearing, grading and excavation, except operations that result in the disturbance of less than five acres of total land area. Construction activity also includes the disturbance of less than five acres of total land area that is a part of a larger common plan of development or sale if the larger common plan will ultimately disturb five acres or more;
11. Facilities under Standard Industrial Classifications 20, 21, 22, 23, 2434, 25, 265, 267, 27, 283, 285, 30, 31 (except 311), 323, 34 (except 3441), 35, 36, 37 (except 373), 38, 39, and 4221–25.

**TOXIC POLLUTANT** means any pollutant listed as toxic under section 307(a)(1) or, in the case of “sludge use or disposal practices,” any pollutant identified in regulations implementing section 405(d) of the CWA.


**TREATMENT WORKS TREATING DOMESTIC SEWAGE (TWTDS)** means a POTW or any other sewage sludge or waste water treatment devices or systems, regardless of ownership (including federal facilities), used in the storage, treatment, recycling, and reclamation of municipal or domestic sewage, including land dedicated for the disposal of sewage sludge. This definition does not include septic tanks or similar devices. For purposes of this definition, “domestic sewage” includes waste and waste water from humans or household operations that are discharged to or otherwise enter a treatment works. In States where there is no approved State sludge management program under section 405(f) of the CWA, the Regional Administrator may designate any person subject to the standards for sewage sludge use and disposal in 40 CFR 503 as a “treatment works treating domestic sewage,” where he or she finds that there is a potential for adverse effects on public health and the environment from poor sludge quality or poor sludge handling, use or disposal practices, or where he or she finds that such designation is necessary to ensure that such person is in compliance with 40 CFR 503.

**UPSET** (defined at § 122.41(n)) means an exceptional incident in which there is unintentional and temporary noncompliance with technology based permit effluent limitations because of factors beyond the reasonable control of the permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.

**VARIANCE** means any mechanism or provision under section 301 or 316 of the CWA or under 40 CFR 125, or in the applicable “effluent limitations guidelines” which allows modification to or waiver of the generally applicable effluent limitation requirements or time deadlines of the CWA. This includes provisions which allow the establishment of alternative limitations based on fundamentally different factors or on sections 301(c), 301(g), 301(h), 301(i), or 316(a) of the CWA.

**WATERS OF THE UNITED STATES** as defined at § 122.2.

**WHOLE EFFLUENT TOXICITY (WET)** means the aggregate toxic effect of an effluent measured directly by a toxicity test.

EPA Identification Number		NPDES Permit Number		Facility Name		Form Approved 03/05/19 OMB No. 2040-0004		
Form 2A NPDES		<b>U.S. Environmental Protection Agency</b> <b>Application for NPDES Permit to Discharge Wastewater</b> <b>NEW AND EXISTING PUBLICLY OWNED TREATMENT WORKS</b>						
<b>SECTION 1. BASIC APPLICATION INFORMATION FOR ALL APPLICANTS (40 CFR 122.21(j)(1) and (9))</b>								
<b>Facility Information</b>	1.1	Facility name						
		Mailing address (street or P.O. box)						
		City or town			State		ZIP code	
		Contact name (first and last)		Title		Phone number		Email address
		Location address (street, route number, or other specific identifier) <input type="checkbox"/> Same as mailing address						
		City or town			State		ZIP code	
<b>Applicant Information</b>	1.2	Is this application for a facility that has yet to commence discharge?						
		<input type="checkbox"/> Yes → See instructions on data submission requirements for new dischargers. <input type="checkbox"/> No						
		1.3 Is applicant different from entity listed under Item 1.1 above?						
		<input type="checkbox"/> Yes <input type="checkbox"/> No → SKIP to Item 1.4.						
		Applicant name						
		Applicant address (street or P.O. box)						
<b>Applicant Information</b>	1.3	City or town			State		ZIP code	
		Contact name (first and last)		Title		Phone number		Email address
		1.4 Is the applicant the facility's owner, operator, or both? (Check only one response.)						
		<input type="checkbox"/> Owner <input type="checkbox"/> Operator <input type="checkbox"/> Both						
		1.5 To which entity should the NPDES permitting authority send correspondence? (Check only one response.)						
		<input type="checkbox"/> Facility <input type="checkbox"/> Applicant <input type="checkbox"/> Facility and applicant (they are one and the same)						
<b>Existing Environmental Permits</b>	1.6	Indicate below any existing environmental permits. (Check all that apply and print or type the corresponding permit number for each.)						
		<b>Existing Environmental Permits</b>						
		<input type="checkbox"/> NPDES (discharges to surface water)		<input type="checkbox"/> RCRA (hazardous waste)		<input type="checkbox"/> UIC (underground injection control)		
		<input type="checkbox"/> PSD (air emissions)		<input type="checkbox"/> Nonattainment program (CAA)		<input type="checkbox"/> NESHAPs (CAA)		
		<input type="checkbox"/> Ocean dumping (MPRSA)		<input type="checkbox"/> Dredge or fill (CWA Section 404)		<input type="checkbox"/> Other (specify)		

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Outfalls and Other Discharge or Disposal Methods	<b>Outfalls Other Than to Waters of the United States</b>				
	1.12	Does the POTW discharge wastewater to basins, ponds, or other surface impoundments that do not have outlets for discharge to waters of the United States? <input type="checkbox"/> Yes <span style="margin-left: 100px;"><input type="checkbox"/> No → SKIP to Item 1.14.</span>			
	1.13	Provide the location of each surface impoundment and associated discharge information in the table below.			
	<b>Surface Impoundment Location and Discharge Data</b>				
	<b>Location</b>		<b>Average Daily Volume Discharged to Surface Impoundment</b>	<b>Continuous or Intermittent (check one)</b>	
			gpd	<input type="checkbox"/> Continuous <input type="checkbox"/> Intermittent	
			gpd	<input type="checkbox"/> Continuous <input type="checkbox"/> Intermittent	
			gpd	<input type="checkbox"/> Continuous <input type="checkbox"/> Intermittent	
	1.14	Is wastewater applied to land? <input type="checkbox"/> Yes <span style="margin-left: 100px;"><input type="checkbox"/> No → SKIP to Item 1.16.</span>			
	1.15	Provide the land application site and discharge data requested below.			
	<b>Land Application Site and Discharge Data</b>				
	<b>Location</b>		<b>Size</b>	<b>Average Daily Volume Applied</b>	<b>Continuous or Intermittent (check one)</b>
			acres	gpd	<input type="checkbox"/> Continuous <input type="checkbox"/> Intermittent
			acres	gpd	<input type="checkbox"/> Continuous <input type="checkbox"/> Intermittent
			acres	gpd	<input type="checkbox"/> Continuous <input type="checkbox"/> Intermittent
1.16	Is effluent transported to another facility for treatment prior to discharge? <input type="checkbox"/> Yes <span style="margin-left: 100px;"><input type="checkbox"/> No → SKIP to Item 1.21.</span>				
1.17	Describe the means by which the effluent is transported (e.g., tank truck, pipe).  <div style="border: 1px solid black; height: 40px; margin-top: 5px;"></div>				
1.18	Is the effluent transported by a party other than the applicant? <input type="checkbox"/> Yes <span style="margin-left: 100px;"><input type="checkbox"/> No → SKIP to Item 1.20.</span>				
1.19	Provide information on the transporter below.				
<b>Transporter Data</b>					
Entity name		Mailing address (street or P.O. box)			
City or town		State	ZIP code		
Contact name (first and last)		Title			
Phone number		Email address			

EPA Identification Number	NPDES Permit Number	Facility Name	Form Approved 03/05/19 OMB No. 2040-0004
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Outfalls and Other Discharge or Disposal Methods Continued	1.20	In the table below, indicate the name, address, contact information, NPDES number, and average daily flow rate of the receiving facility.		
	Receiving Facility Data			
	Facility name	Mailing address (street or P.O. box)		
	City or town	State      ZIP code		
	Contact name (first and last)	Title		
	Phone number	Email address		
	NPDES number of receiving facility (if any) <input type="checkbox"/> None	Average daily flow rate      mgd		
	1.21	Is the wastewater disposed of in a manner other than those already mentioned in Items 1.14 through 1.21 that do not have outlets to waters of the United States (e.g., underground percolation, underground injection)?  <input type="checkbox"/> Yes <input type="checkbox"/> No → SKIP to Item 1.23.		
	1.22	Provide information in the table below on these other disposal methods.		
	Information on Other Disposal Methods			
Disposal Method Description	Location of Disposal Site	Size of Disposal Site	Annual Average Daily Discharge Volume	Continuous or Intermittent (check one)
		acres	gpd	<input type="checkbox"/> Continuous <input type="checkbox"/> Intermittent
		acres	gpd	<input type="checkbox"/> Continuous <input type="checkbox"/> Intermittent
		acres	gpd	<input type="checkbox"/> Continuous <input type="checkbox"/> Intermittent

Variance Requests	1.23	Do you intend to request or renew one or more of the variances authorized at 40 CFR 122.21(n)? (Check all that apply. Consult with your NPDES permitting authority to determine what information needs to be submitted and when.)  <input type="checkbox"/> Discharges into marine waters (CWA Section 301(h)) <input type="checkbox"/> Water quality related effluent limitation (CWA Section 302(b)(2)) <input type="checkbox"/> Not applicable
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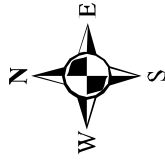
  

Contractor Information	1.24	Are any operational or maintenance aspects (related to wastewater treatment and effluent quality) of the treatment works the responsibility of a contractor?  <input type="checkbox"/> Yes <input type="checkbox"/> No → SKIP to Section 2.		
	1.25	Provide location and contact information for each contractor in addition to a description of the contractor's operational and maintenance responsibilities.		
	Contractor Information			
		Contractor 1	Contractor 2	Contractor 3
	Contractor name (company name)			
	Mailing address (street or P.O. box)			
	City, state, and ZIP code			
	Contact name (first and last)			
	Phone number			
	Email address			
Operational and maintenance responsibilities of contractor				

EPA Identification Number		NPDES Permit Number		Facility Name		Form Approved 03/05/19 OMB No. 2040-0004	
<b>SECTION 2. ADDITIONAL INFORMATION (40 CFR 122.21(j)(1) and (2))</b>							
Design Flow	<b>Outfalls to Waters of the United States</b>						
	2.1	Does the treatment works have a design flow greater than or equal to 0.1 mgd? <input type="checkbox"/> Yes <input type="checkbox"/> No → SKIP to Section 3.					
Inflow and Infiltration	2.2	Provide the treatment works' current average daily volume of inflow and infiltration.				<b>Average Daily Volume of Inflow and Infiltration</b>	
						gpd	
Topographic Map	2.3	Have you attached a topographic map to this application that contains all the required information? (See instructions for specific requirements.) <input type="checkbox"/> Yes <input type="checkbox"/> No					
Flow Diagram	2.4	Have you attached a process flow diagram or schematic to this application that contains all the required information? (See instructions for specific requirements.) <input type="checkbox"/> Yes <input type="checkbox"/> No					
Scheduled Improvements and Schedules of Implementation	2.5	Are improvements to the facility scheduled? <input type="checkbox"/> Yes <input type="checkbox"/> No → SKIP to Section 3.					
	Briefly list and describe the scheduled improvements.						
	1.						
	2.						
	3.						
	4.						
	2.6	Provide scheduled or actual dates of completion for improvements.					
	<b>Scheduled or Actual Dates of Completion for Improvements</b>						
		<b>Scheduled Improvement</b> (from above)	<b>Affected Outfalls</b> (list outfall number)	<b>Begin Construction</b> (MM/DD/YYYY)	<b>End Construction</b> (MM/DD/YYYY)	<b>Begin Discharge</b> (MM/DD/YYYY)	<b>Attainment of Operational Level</b> (MM/DD/YYYY)
		1.					
	2.						
	3.						
	4.						
2.7	Have appropriate permits/clearances concerning other federal/state requirements been obtained? Briefly explain your response. <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> None required or applicable						
Explanation:							

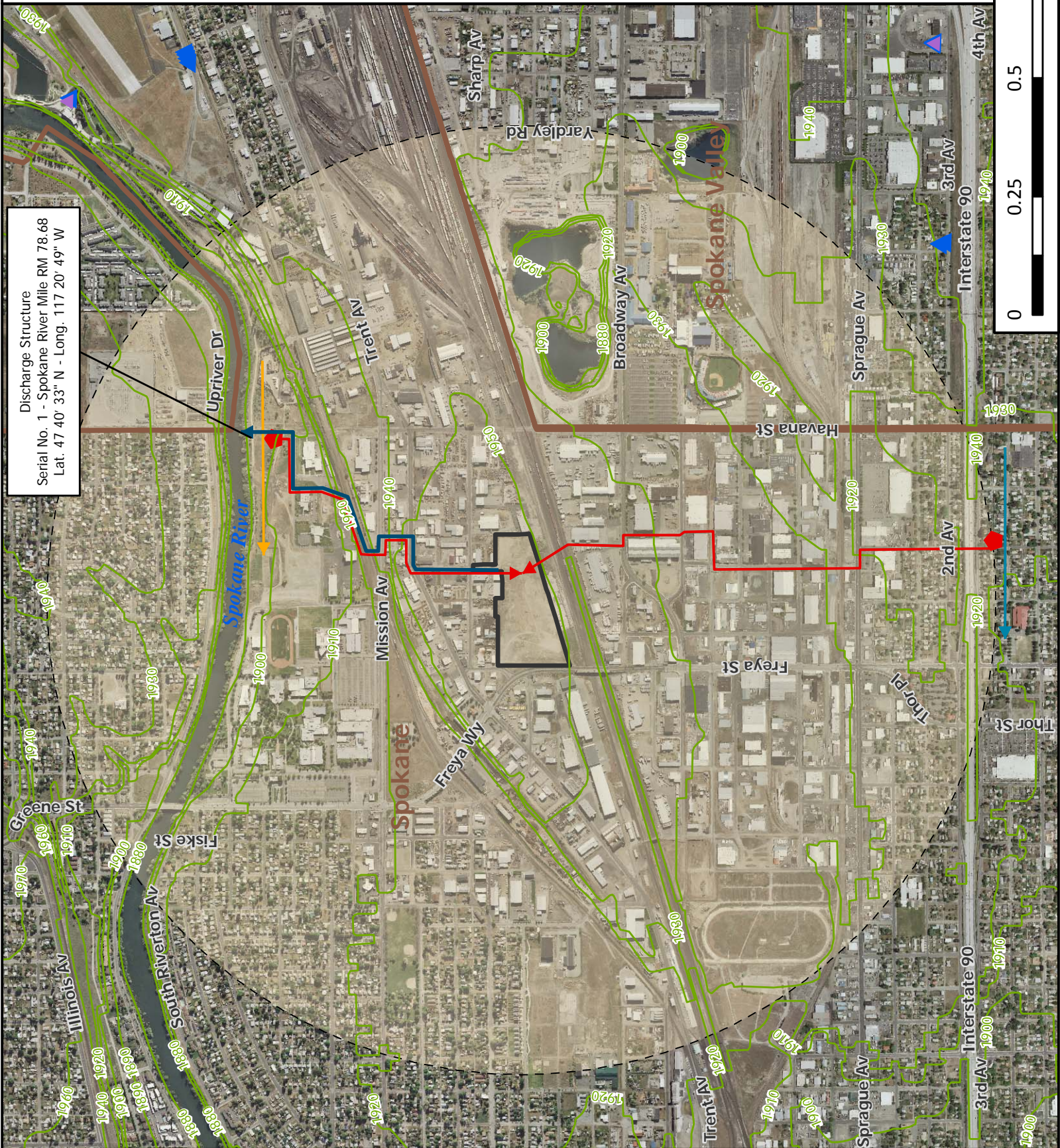


**Site Plan**  
**Spokane County**  
**Regional Water**  
**Reclamation Facility**



- Group A Wells
- Group B Wells
- Pump Station (P.S.)
- P.S. Force Mains
- Outfall Pipe
- North Valley Interceptor
- Spokane Valley Interceptor
- Contours
- Municipal Boundaries
- Reclamation Facility Site
- 1 Mile Radius Zone

Map & Data: Spokane County  
Water Resources Division  
Spokane County GIS  
September 1, 2010







EPA Identification Number		NPDES Permit Number		Facility Name		Form Approved 03/05/19 OMB No. 2040-0004	
<b>SECTION 3. INFORMATION ON EFFLUENT DISCHARGES (40 CFR 122.21(j)(3) to (5))</b>							
<b>Description of Outfalls</b>	3.1	Provide the following information for each outfall. (Attach additional sheets if you have more than three outfalls.)					
			<b>Outfall Number</b> _____	<b>Outfall Number</b> _____	<b>Outfall Number</b> _____		
	State						
	County						
	City or town						
	Distance from shore		ft.	ft.	ft.		
	Depth below surface		ft.	ft.	ft.		
	Average daily flow rate		mgd	mgd	mgd		
	Latitude	°	'	"	°	'	"
	Longitude	°	'	"	°	'	"
<b>Seasonal or Periodic Discharge Data</b>	3.2	Do any of the outfalls described under Item 3.1 have seasonal or periodic discharges? <input type="checkbox"/> Yes <input type="checkbox"/> No → SKIP to Item 3.4.					
	3.3	If so, provide the following information for each applicable outfall.					
			<b>Outfall Number</b> _____	<b>Outfall Number</b> _____	<b>Outfall Number</b> _____		
	Number of times per year discharge occurs						
	Average duration of each discharge (specify units)						
	Average flow of each discharge		mgd	mgd	mgd		
Months in which discharge occurs							
<b>Diffuser Type</b>	3.4	Are any of the outfalls listed under Item 3.1 equipped with a diffuser? <input type="checkbox"/> Yes <input type="checkbox"/> No → SKIP to Item 3.6.					
	3.5	Briefly describe the diffuser type at each applicable outfall.					
			<b>Outfall Number</b> _____	<b>Outfall Number</b> _____	<b>Outfall Number</b> _____		
<b>Waters of the U.S.</b>	3.6	Does the treatment works discharge or plan to discharge wastewater to waters of the United States from one or more discharge points? <input type="checkbox"/> Yes <input type="checkbox"/> No → SKIP to Section 6.					

EPA Identification Number		NPDES Permit Number		Facility Name		Form Approved 03/05/19 OMB No. 2040-0004	
Receiving Water Description	3.7	Provide the receiving water and related information (if known) for each outfall.					
			Outfall Number _____	Outfall Number _____	Outfall Number _____		
	Receiving water name						
	Name of watershed, river, or stream system						
	U.S. Soil Conservation Service 14-digit watershed code						
	Name of state management/river basin						
	U.S. Geological Survey 8-digit hydrologic cataloging unit code						
	Critical low flow (acute)		cfs		cfs		cfs
	Critical low flow (chronic)		cfs		cfs		cfs
	Total hardness at critical low flow		mg/L of CaCO <sub>3</sub>		mg/L of CaCO <sub>3</sub>		mg/L of CaCO <sub>3</sub>
Treatment Description	3.8	Provide the following information describing the treatment provided for discharges from each outfall.					
			Outfall Number _____	Outfall Number _____	Outfall Number _____		
	Highest Level of Treatment (check all that apply per outfall)	<input type="checkbox"/> Primary <input type="checkbox"/> Equivalent to secondary <input type="checkbox"/> Secondary <input type="checkbox"/> Advanced <input type="checkbox"/> Other (specify) _____	<input type="checkbox"/> Primary <input type="checkbox"/> Equivalent to secondary <input type="checkbox"/> Secondary <input type="checkbox"/> Advanced <input type="checkbox"/> Other (specify) _____	<input type="checkbox"/> Primary <input type="checkbox"/> Equivalent to secondary <input type="checkbox"/> Secondary <input type="checkbox"/> Advanced <input type="checkbox"/> Other (specify) _____			
	Design Removal Rates by Outfall						
	BOD <sub>5</sub> or CBOD <sub>5</sub>		%		%		%
	TSS		%		%		%
	Phosphorus	<input type="checkbox"/> Not applicable %	<input type="checkbox"/> Not applicable %	<input type="checkbox"/> Not applicable %			
	Nitrogen	<input type="checkbox"/> Not applicable %	<input type="checkbox"/> Not applicable %	<input type="checkbox"/> Not applicable %			
	Other (specify) _____	<input type="checkbox"/> Not applicable %	<input type="checkbox"/> Not applicable %	<input type="checkbox"/> Not applicable %			

EPA Identification Number	NPDES Permit Number	Facility Name	Form Approved 03/05/19 OMB No. 2040-0004
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<b>Treatment Description Continued</b>	3.9	Describe the type of disinfection used for the effluent from each outfall in the table below. If disinfection varies by season, describe below.																
		<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th style="width: 30%;"></th> <th style="width: 20%;">Outfall Number _____</th> <th style="width: 20%;">Outfall Number _____</th> <th style="width: 30%;">Outfall Number _____</th> </tr> <tr> <td>Disinfection type</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Seasons used</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Dechlorination used?</td> <td> <input type="checkbox"/> Not applicable  <input type="checkbox"/> Yes  <input type="checkbox"/> No </td> <td> <input type="checkbox"/> Not applicable  <input type="checkbox"/> Yes  <input type="checkbox"/> No </td> <td> <input type="checkbox"/> Not applicable  <input type="checkbox"/> Yes  <input type="checkbox"/> No </td> </tr> </table>		Outfall Number _____	Outfall Number _____	Outfall Number _____	Disinfection type				Seasons used				Dechlorination used?	<input type="checkbox"/> Not applicable <input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Not applicable <input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Not applicable <input type="checkbox"/> Yes <input type="checkbox"/> No
		Outfall Number _____	Outfall Number _____	Outfall Number _____														
	Disinfection type																	
	Seasons used																	
Dechlorination used?	<input type="checkbox"/> Not applicable <input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Not applicable <input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Not applicable <input type="checkbox"/> Yes <input type="checkbox"/> No															

<b>Effluent Testing Data</b>	3.10	Have you completed monitoring for all Table A parameters and attached the results to the application package? <input type="checkbox"/> Yes <span style="margin-left: 150px;"><input type="checkbox"/> No</span>																											
	3.11	Have you conducted any WET tests during the 4.5 years prior to the date of the application on any of the facility's discharges or on any receiving water near the discharge points? <input type="checkbox"/> Yes <span style="margin-left: 150px;"><input type="checkbox"/> No → SKIP to Item 3.13.</span>																											
	3.12	Indicate the number of acute and chronic WET tests conducted since the last permit reissuance of the facility's discharges by outfall number or of the receiving water near the discharge points. <table border="1" style="width: 100%; border-collapse: collapse; margin-top: 5px;"> <tr> <th rowspan="2" style="width: 30%;"></th> <th colspan="2">Outfall Number _____</th> <th colspan="2">Outfall Number _____</th> <th colspan="2">Outfall Number _____</th> </tr> <tr> <th>Acute</th> <th>Chronic</th> <th>Acute</th> <th>Chronic</th> <th>Acute</th> <th>Chronic</th> </tr> <tr> <td>Number of tests of discharge water</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Number of tests of receiving water</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </table>		Outfall Number _____		Outfall Number _____		Outfall Number _____		Acute	Chronic	Acute	Chronic	Acute	Chronic	Number of tests of discharge water							Number of tests of receiving water						
		Outfall Number _____		Outfall Number _____		Outfall Number _____																							
		Acute	Chronic	Acute	Chronic	Acute	Chronic																						
	Number of tests of discharge water																												
	Number of tests of receiving water																												
	3.13	Does the treatment works have a design flow greater than or equal to 0.1 mgd? <input type="checkbox"/> Yes <span style="margin-left: 150px;"><input type="checkbox"/> No → SKIP to Item 3.16.</span>																											
	3.14	Does the POTW use chlorine for disinfection, use chlorine elsewhere in the treatment process, or otherwise have reasonable potential to discharge chlorine in its effluent? <input type="checkbox"/> Yes → Complete Table B, including chlorine. <span style="margin-left: 50px;"><input type="checkbox"/> No → Complete Table B, omitting chlorine.</span>																											
	3.15	Have you completed monitoring for all applicable Table B pollutants and attached the results to this application package? <input type="checkbox"/> Yes <span style="margin-left: 150px;"><input type="checkbox"/> No</span>																											
3.16	Does one or more of the following conditions apply? <ul style="list-style-type: none"> <li>The facility has a design flow greater than or equal to 1 mgd.</li> <li>The POTW has an approved pretreatment program or is required to develop such a program.</li> <li>The NPDES permitting authority has informed the POTW that it must sample for the parameters in Table C, must sample other additional parameters (Table D), or submit the results of WET tests for acute or chronic toxicity for each of its discharge outfalls (Table E).</li> </ul> <input type="checkbox"/> Yes → Complete Tables C, D, and E as applicable. <span style="margin-left: 100px;"><input type="checkbox"/> No → SKIP to Section 4.</span>																												
3.17	Have you completed monitoring for all applicable Table C pollutants and attached the results to this application package? <input type="checkbox"/> Yes <span style="margin-left: 150px;"><input type="checkbox"/> No</span>																												
3.18	Have you completed monitoring for all applicable Table D pollutants required by your NPDES permitting authority and attached the results to this application package? <input type="checkbox"/> Yes <span style="margin-left: 150px;"><input type="checkbox"/> No additional sampling required by NPDES permitting authority.</span>																												

EPA Identification Number	NPDES Permit Number	Facility Name	Form Approved 03/05/19 OMB No. 2040-0004
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<b>Effluent Testing Data Continued</b>	3.19	Has the POTW conducted either (1) minimum of four quarterly WET tests for one year preceding this permit application or (2) at least four annual WET tests in the past 4.5 years? <input type="checkbox"/> Yes <span style="margin-left: 200px;"><input type="checkbox"/> No → Complete tests and Table E and SKIP to Item 3.26.</span>				
	3.20	Have you previously submitted the results of the above tests to your NPDES permitting authority? <input type="checkbox"/> Yes <span style="margin-left: 200px;"><input type="checkbox"/> No → Provide results in Table E and SKIP to Item 3.26.</span>				
	3.21	Indicate the dates the data were submitted to your NPDES permitting authority and provide a summary of the results. <table border="1" style="width: 100%; border-collapse: collapse; margin-top: 5px;"> <tr> <th style="width: 45%; text-align: center;">Date(s) Submitted (MM/DD/YYYY)</th> <th style="width: 55%; text-align: center;">Summary of Results</th> </tr> <tr> <td style="height: 80px;"></td> <td></td> </tr> </table>	Date(s) Submitted (MM/DD/YYYY)	Summary of Results		
	Date(s) Submitted (MM/DD/YYYY)	Summary of Results				
	3.22	Regardless of how you provided your WET testing data to the NPDES permitting authority, did any of the tests result in toxicity? <input type="checkbox"/> Yes <span style="margin-left: 200px;"><input type="checkbox"/> No → SKIP to Item 3.26.</span>				
	3.23	Describe the cause(s) of the toxicity: <div style="height: 60px;"></div>				
	3.24	Has the treatment works conducted a toxicity reduction evaluation? <input type="checkbox"/> Yes <span style="margin-left: 200px;"><input type="checkbox"/> No → SKIP to Item 3.26.</span>				
3.25	Provide details of any toxicity reduction evaluations conducted. <div style="height: 80px;"></div>					
3.26	Have you completed Table E for all applicable outfalls and attached the results to the application package? <input type="checkbox"/> Yes <span style="margin-left: 200px;"><input type="checkbox"/> Not applicable because previously submitted information to the NPDES permitting authority.</span>					

<b>SECTION 4. INDUSTRIAL DISCHARGES AND HAZARDOUS WASTES (40 CFR 122.21(j)(6) and (7))</b>	
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<b>Industrial Discharges and Hazardous Wastes</b>	4.1	Does the POTW receive discharges from SIUs or NSCIUs? <input type="checkbox"/> Yes <span style="margin-left: 200px;"><input type="checkbox"/> No → SKIP to Item 4.7.</span>				
	4.2	Indicate the number of SIUs and NSCIUs that discharge to the POTW. <table border="1" style="width: 100%; border-collapse: collapse; margin-top: 5px;"> <tr> <th style="width: 50%; text-align: center;">Number of SIUs</th> <th style="width: 50%; text-align: center;">Number of NSCIUs</th> </tr> <tr> <td style="height: 30px;"></td> <td></td> </tr> </table>	Number of SIUs	Number of NSCIUs		
	Number of SIUs	Number of NSCIUs				
	4.3	Does the POTW have an approved pretreatment program? <input type="checkbox"/> Yes <span style="margin-left: 200px;"><input type="checkbox"/> No</span>				
	4.4	Have you submitted either of the following to the NPDES permitting authority that contains information substantially identical to that required in Table F: (1) a pretreatment program annual report submitted within one year of the application or (2) a pretreatment program? <input type="checkbox"/> Yes <span style="margin-left: 200px;"><input type="checkbox"/> No → SKIP to Item 4.6.</span>				
4.5	Identify the title and date of the annual report or pretreatment program referenced in Item 4.4. SKIP to Item 4.7. <div style="height: 40px;"></div>					
4.6	Have you completed and attached Table F to this application package? <input type="checkbox"/> Yes <span style="margin-left: 200px;"><input type="checkbox"/> No</span>					

EPA Identification Number	NPDES Permit Number	Facility Name	Form Approved 03/05/19 OMB No. 2040-0004	
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Industrial Discharges and Hazardous Wastes Continued	4.7	Does the POTW receive, or has it been notified that it will receive, by truck, rail, or dedicated pipe, any wastes that are regulated as RCRA hazardous wastes pursuant to 40 CFR 261?  <input type="checkbox"/> Yes <span style="margin-left: 200px;"><input type="checkbox"/> No → SKIP to Item 4.9.</span>			
	4.8	If yes, provide the following information:			
		Hazardous Waste Number	Waste Transport Method (check all that apply)	Annual Amount of Waste Received	Units
			<input type="checkbox"/> Truck <span style="margin-left: 100px;"><input type="checkbox"/> Rail</span> <input type="checkbox"/> Dedicated pipe <span style="margin-left: 100px;"><input type="checkbox"/> Other (specify) _____</span>		
			<input type="checkbox"/> Truck <span style="margin-left: 100px;"><input type="checkbox"/> Rail</span> <input type="checkbox"/> Dedicated pipe <span style="margin-left: 100px;"><input type="checkbox"/> Other (specify) _____</span>		
			<input type="checkbox"/> Truck <span style="margin-left: 100px;"><input type="checkbox"/> Rail</span> <input type="checkbox"/> Dedicated pipe <span style="margin-left: 100px;"><input type="checkbox"/> Other (specify) _____</span>		
	4.9	Does the POTW receive, or has it been notified that it will receive, wastewaters that originate from remedial activities, including those undertaken pursuant to CERCLA and Sections 3004(7) or 3008(h) of RCRA?  <input type="checkbox"/> Yes <span style="margin-left: 200px;"><input type="checkbox"/> No → SKIP to Section 5.</span>			
	4.10	Does the POTW receive (or expect to receive) less than 15 kilograms per month of non-acute hazardous wastes as specified in 40 CFR 261.30(d) and 261.33(e)?  <input type="checkbox"/> Yes → SKIP to Section 5. <span style="margin-left: 200px;"><input type="checkbox"/> No</span>			
4.11	Have you reported the following information in an attachment to this application: identification and description of the site(s) or facility(ies) at which the wastewater originates; the identities of the wastewater's hazardous constituents; and the extent of treatment, if any, the wastewater receives or will receive before entering the POTW?  <input type="checkbox"/> Yes <span style="margin-left: 200px;"><input type="checkbox"/> No</span>				
SECTION 5. COMBINED SEWER OVERFLOWS (40 CFR 122.21(j)(8))					
CSO Map and Diagram	5.1	Does the treatment works have a combined sewer system?  <input type="checkbox"/> Yes <span style="margin-left: 200px;"><input type="checkbox"/> No → SKIP to Section 6.</span>			
	5.2	Have you attached a CSO system map to this application? (See instructions for map requirements.)  <input type="checkbox"/> Yes <span style="margin-left: 200px;"><input type="checkbox"/> No</span>			
	5.3	Have you attached a CSO system diagram to this application? (See instructions for diagram requirements.)  <input type="checkbox"/> Yes <span style="margin-left: 200px;"><input type="checkbox"/> No</span>			

EPA Identification Number		NPDES Permit Number		Facility Name		Form Approved 03/05/19 OMB No. 2040-0004	
CSO Outfall Description	5.4	For each CSO outfall, provide the following information. (Attach additional sheets as necessary.)					
		CSO Outfall Number ____		CSO Outfall Number ____		CSO Outfall Number ____	
	City or town						
	State and ZIP code						
	County						
	Latitude	°   '   "		°   '   "		°   '   "	
	Longitude	°   '   "		°   '   "		°   '   "	
	Distance from shore	ft.		ft.		ft.	
	Depth below surface	ft.		ft.		ft.	
CSO Monitoring	5.5	Did the POTW monitor any of the following items in the past year for its CSO outfalls?					
		CSO Outfall Number ____		CSO Outfall Number ____		CSO Outfall Number ____	
	Rainfall	<input type="checkbox"/> Yes <input type="checkbox"/> No		<input type="checkbox"/> Yes <input type="checkbox"/> No		<input type="checkbox"/> Yes <input type="checkbox"/> No	
	CSO flow volume	<input type="checkbox"/> Yes <input type="checkbox"/> No		<input type="checkbox"/> Yes <input type="checkbox"/> No		<input type="checkbox"/> Yes <input type="checkbox"/> No	
	CSO pollutant concentrations	<input type="checkbox"/> Yes <input type="checkbox"/> No		<input type="checkbox"/> Yes <input type="checkbox"/> No		<input type="checkbox"/> Yes <input type="checkbox"/> No	
	Receiving water quality	<input type="checkbox"/> Yes <input type="checkbox"/> No		<input type="checkbox"/> Yes <input type="checkbox"/> No		<input type="checkbox"/> Yes <input type="checkbox"/> No	
	CSO frequency	<input type="checkbox"/> Yes <input type="checkbox"/> No		<input type="checkbox"/> Yes <input type="checkbox"/> No		<input type="checkbox"/> Yes <input type="checkbox"/> No	
	Number of storm events	<input type="checkbox"/> Yes <input type="checkbox"/> No		<input type="checkbox"/> Yes <input type="checkbox"/> No		<input type="checkbox"/> Yes <input type="checkbox"/> No	
CSO Events in Past Year	5.6	Provide the following information for each of your CSO outfalls.					
		CSO Outfall Number ____		CSO Outfall Number ____		CSO Outfall Number ____	
	Number of CSO events in the past year	events		events		events	
	Average duration per event	hours <input type="checkbox"/> Actual or <input type="checkbox"/> Estimated		hours <input type="checkbox"/> Actual or <input type="checkbox"/> Estimated		hours <input type="checkbox"/> Actual or <input type="checkbox"/> Estimated	
	Average volume per event	million gallons <input type="checkbox"/> Actual or <input type="checkbox"/> Estimated		million gallons <input type="checkbox"/> Actual or <input type="checkbox"/> Estimated		million gallons <input type="checkbox"/> Actual or <input type="checkbox"/> Estimated	
	Minimum rainfall causing a CSO event in last year	inches of rainfall <input type="checkbox"/> Actual or <input type="checkbox"/> Estimated		inches of rainfall <input type="checkbox"/> Actual or <input type="checkbox"/> Estimated		inches of rainfall <input type="checkbox"/> Actual or <input type="checkbox"/> Estimated	

EPA Identification Number		NPDES Permit Number WA-0093317		Facility Name Spokane County Regional Water		Form Approved 03/05/19 OMB No. 2040-0004	
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<b>CSO Receiving Waters</b>	<b>5.7</b>	Provide the information in the table below for each of your CSO outfalls.					
			CSO Outfall Number ____	CSO Outfall Number ____	CSO Outfall Number ____		
		Receiving water name					
		Name of watershed/ stream system					
		U.S. Soil Conservation Service 14-digit watershed code (if known)	<input type="checkbox"/> Unknown	<input type="checkbox"/> Unknown	<input type="checkbox"/> Unknown		
		Name of state management/river basin					
		U.S. Geological Survey 8-Digit Hydrologic Unit Code (if known)	<input type="checkbox"/> Unknown	<input type="checkbox"/> Unknown	<input type="checkbox"/> Unknown		
		Description of known water quality impacts on receiving stream by CSO (see instructions for examples)					

SECTION 6. CHECKLIST AND CERTIFICATION STATEMENT (40 CFR 122.22(a) and (d))							
<b>Checklist and Certification Statement</b>	<b>6.1</b>	In Column 1 below, mark the sections of Form 2A that you have completed and are submitting with your application. For each section, specify in Column 2 any attachments that you are enclosing to alert the permitting authority. Note that not all applicants are required to provide attachments.					
		<b>Column 1</b>	<b>Column 2</b>				
		<input checked="" type="checkbox"/> Section 1: Basic Application Information for All Applicants	<input type="checkbox"/> w/ variance request(s)	<input checked="" type="checkbox"/> w/ additional attachments			
		<input checked="" type="checkbox"/> Section 2: Additional Information	<input checked="" type="checkbox"/> w/ topographic map <input type="checkbox"/> w/ additional attachments	<input checked="" type="checkbox"/> w/ process flow diagram			
		<input checked="" type="checkbox"/> Section 3: Information on Effluent Discharges	<input checked="" type="checkbox"/> w/ Table A <input checked="" type="checkbox"/> w/ Table B <input checked="" type="checkbox"/> w/ Table C	<input checked="" type="checkbox"/> w/ Table D <input checked="" type="checkbox"/> w/ Table E <input type="checkbox"/> w/ additional attachments			
		<input checked="" type="checkbox"/> Section 4: Industrial Discharges and Hazardous Wastes	<input type="checkbox"/> w/ SIU and NSCIU attachments <input type="checkbox"/> w/ additional attachments	<input checked="" type="checkbox"/> w/ Table F			
		<input type="checkbox"/> Section 5: Combined Sewer Overflows	<input type="checkbox"/> w/ CSO map <input type="checkbox"/> w/ CSO system diagram	<input type="checkbox"/> w/ additional attachments			
		<input checked="" type="checkbox"/> Section 6: Checklist and Certification Statement	<input type="checkbox"/> w/ attachments				
		<b>6.2</b>	<b>Certification Statement</b>  <i>I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.</i>				
	Name (print or type first and last name) Kevin R. Cooke, P.E.			Official title Environmental Services Director			
	Signature 			Date signed 01/26/2021			



EPA Identification Number	NPDES Permit Number	Facility Name	Outfall Number
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Form Approved 03/05/19  
OMB No. 2040-0004

**TABLE A. EFFLUENT PARAMETERS FOR ALL POTWS**

Pollutant	Maximum Daily Discharge		Average Daily Discharge			Analytical Method <sup>1</sup>	ML or MDL (include units)
	Value	Units	Value	Units	Number of Samples		
Biochemical oxygen demand <input type="checkbox"/> BOD <sub>5</sub> or <input type="checkbox"/> CBOD <sub>5</sub> (report one)							<input type="checkbox"/> ML <input type="checkbox"/> MDL
Fecal coliform							<input type="checkbox"/> ML <input type="checkbox"/> MDL
Design flow rate							
pH (minimum)							
pH (maximum)							
Temperature (winter)							
Temperature (summer)							
Total suspended solids (TSS)							<input type="checkbox"/> ML <input type="checkbox"/> MDL

<sup>1</sup> Sampling shall be conducted according to sufficiently sensitive test procedures (i.e., methods) approved under 40 CFR 136 for the analysis of pollutants or pollutant parameters or required under 40 CFR chapter I, subchapter N or O. See instructions and 40 CFR 122.21(e)(3).

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EPA Identification Number	NPDES Permit Number	Facility Name	Outfall Number
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**TABLE B. EFFLUENT PARAMETERS FOR ALL POTWS WITH A FLOW EQUAL TO OR GREATER THAN 0.1 MGD**

Pollutant	Maximum Daily Discharge		Average Daily Discharge			Analytical Method <sup>1</sup>	ML or MDL (include units)
	Value	Units	Value	Units	Number of Samples		
Ammonia (as N)							<input type="checkbox"/> ML <input type="checkbox"/> MDL
Chlorine (total residual, TRC) <sup>2</sup>							<input type="checkbox"/> ML <input type="checkbox"/> MDL
Dissolved oxygen							<input type="checkbox"/> ML <input type="checkbox"/> MDL
Nitrate/nitrite							<input type="checkbox"/> ML <input type="checkbox"/> MDL
Kjeldahl nitrogen							<input type="checkbox"/> ML <input type="checkbox"/> MDL
Oil and grease							<input type="checkbox"/> ML <input type="checkbox"/> MDL
Phosphorus							<input type="checkbox"/> ML <input type="checkbox"/> MDL
Total dissolved solids							<input type="checkbox"/> ML <input type="checkbox"/> MDL

<sup>1</sup> Sampling shall be conducted according to sufficiently sensitive test procedures (i.e., methods) approved under 40 CFR 136 for the analysis of pollutants or pollutant parameters or required under 40 CFR chapter I, subchapter N or O. See instructions and 40 CFR 122.21(e)(3).

<sup>2</sup> Facilities that do not use chlorine for disinfection, do not use chlorine elsewhere in the treatment process, and have no reasonable potential to discharge chlorine in their effluent are not required to report data for chlorine.

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EPA Identification Number	NPDES Permit Number	Facility Name	Outfall Number
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**TABLE C. EFFLUENT PARAMETERS FOR SELECTED POTWS**

Pollutant	Maximum Daily Discharge		Average Daily Discharge			Analytical Method <sup>1</sup>	ML or MDL (include units)
	Value	Units	Value	Units	Number of Samples		
<b>Metals, Cyanide, and Total Phenols</b>							
Hardness (as CaCO <sub>3</sub> )							<input type="checkbox"/> ML <input type="checkbox"/> MDL
Antimony, total recoverable							<input type="checkbox"/> ML <input type="checkbox"/> MDL
Arsenic, total recoverable							<input type="checkbox"/> ML <input type="checkbox"/> MDL
Beryllium, total recoverable							<input type="checkbox"/> ML <input type="checkbox"/> MDL
Cadmium, total recoverable							<input type="checkbox"/> ML <input type="checkbox"/> MDL
Chromium, total recoverable							<input type="checkbox"/> ML <input type="checkbox"/> MDL
Copper, total recoverable							<input type="checkbox"/> ML <input type="checkbox"/> MDL
Lead, total recoverable							<input type="checkbox"/> ML <input type="checkbox"/> MDL
Mercury, total recoverable							<input type="checkbox"/> ML <input type="checkbox"/> MDL
Nickel, total recoverable							<input type="checkbox"/> ML <input type="checkbox"/> MDL
Selenium, total recoverable							<input type="checkbox"/> ML <input type="checkbox"/> MDL
Silver, total recoverable							<input type="checkbox"/> ML <input type="checkbox"/> MDL
Thallium, total recoverable							<input type="checkbox"/> ML <input type="checkbox"/> MDL
Zinc, total recoverable							<input type="checkbox"/> ML <input type="checkbox"/> MDL
Cyanide							<input type="checkbox"/> ML <input type="checkbox"/> MDL
Total phenolic compounds							<input type="checkbox"/> ML <input type="checkbox"/> MDL
<b>Volatile Organic Compounds</b>							
Acrolein							<input type="checkbox"/> ML <input type="checkbox"/> MDL
Acrylonitrile							<input type="checkbox"/> ML <input type="checkbox"/> MDL
Benzene							<input type="checkbox"/> ML <input type="checkbox"/> MDL
Bromoform							<input type="checkbox"/> ML <input type="checkbox"/> MDL

EPA Identification Number	NPDES Permit Number	Facility Name	Outfall Number
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**TABLE C. EFFLUENT PARAMETERS FOR SELECTED POTWS**

Pollutant	Maximum Daily Discharge		Average Daily Discharge			Analytical Method <sup>1</sup>	ML or MDL (include units)
	Value	Units	Value	Units	Number of Samples		
Carbon tetrachloride							<input type="checkbox"/> ML <input type="checkbox"/> MDL
Chlorobenzene							<input type="checkbox"/> ML <input type="checkbox"/> MDL
Chlorodibromomethane							<input type="checkbox"/> ML <input type="checkbox"/> MDL
Chloroethane							<input type="checkbox"/> ML <input type="checkbox"/> MDL
2-chloroethylvinyl ether							<input type="checkbox"/> ML <input type="checkbox"/> MDL
Chloroform							<input type="checkbox"/> ML <input type="checkbox"/> MDL
Dichlorobromomethane							<input type="checkbox"/> ML <input type="checkbox"/> MDL
1,1-dichloroethane							<input type="checkbox"/> ML <input type="checkbox"/> MDL
1,2-dichloroethane							<input type="checkbox"/> ML <input type="checkbox"/> MDL
trans-1,2-dichloroethylene							<input type="checkbox"/> ML <input type="checkbox"/> MDL
1,1-dichloroethylene							<input type="checkbox"/> ML <input type="checkbox"/> MDL
1,2-dichloropropane							<input type="checkbox"/> ML <input type="checkbox"/> MDL
1,3-dichloropropylene							<input type="checkbox"/> ML <input type="checkbox"/> MDL
Ethylbenzene							<input type="checkbox"/> ML <input type="checkbox"/> MDL
Methyl bromide							<input type="checkbox"/> ML <input type="checkbox"/> MDL
Methyl chloride							<input type="checkbox"/> ML <input type="checkbox"/> MDL
Methylene chloride							<input type="checkbox"/> ML <input type="checkbox"/> MDL
1,1,2,2-tetrachloroethane							<input type="checkbox"/> ML <input type="checkbox"/> MDL
Tetrachloroethylene							<input type="checkbox"/> ML <input type="checkbox"/> MDL
Toluene							<input type="checkbox"/> ML <input type="checkbox"/> MDL
1,1,1-trichloroethane							<input type="checkbox"/> ML <input type="checkbox"/> MDL
1,1,2-trichloroethane							<input type="checkbox"/> ML <input type="checkbox"/> MDL



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**TABLE C. EFFLUENT PARAMETERS FOR SELECTED POTWS**

Pollutant	Maximum Daily Discharge		Average Daily Discharge			Analytical Method <sup>1</sup>	ML or MDL (include units)
	Value	Units	Value	Units	Number of Samples		
Trichloroethylene							<input type="checkbox"/> ML <input type="checkbox"/> MDL
Vinyl chloride							<input type="checkbox"/> ML <input type="checkbox"/> MDL
<b>Acid-Extractable Compounds</b>							
p-chloro-m-cresol							<input type="checkbox"/> ML <input type="checkbox"/> MDL
2-chlorophenol							<input type="checkbox"/> ML <input type="checkbox"/> MDL
2,4-dichlorophenol							<input type="checkbox"/> ML <input type="checkbox"/> MDL
2,4-dimethylphenol							<input type="checkbox"/> ML <input type="checkbox"/> MDL
4,6-dinitro-o-cresol							<input type="checkbox"/> ML <input type="checkbox"/> MDL
2,4-dinitrophenol							<input type="checkbox"/> ML <input type="checkbox"/> MDL
2-nitrophenol							<input type="checkbox"/> ML <input type="checkbox"/> MDL
4-nitrophenol							<input type="checkbox"/> ML <input type="checkbox"/> MDL
Pentachlorophenol							<input type="checkbox"/> ML <input type="checkbox"/> MDL
Phenol							<input type="checkbox"/> ML <input type="checkbox"/> MDL
2,4,6-trichlorophenol							<input type="checkbox"/> ML <input type="checkbox"/> MDL
<b>Base-Neutral Compounds</b>							
Acenaphthene							<input type="checkbox"/> ML <input type="checkbox"/> MDL
Acenaphthylene							<input type="checkbox"/> ML <input type="checkbox"/> MDL
Anthracene							<input type="checkbox"/> ML <input type="checkbox"/> MDL
Benzidine							<input type="checkbox"/> ML <input type="checkbox"/> MDL
Benzo(a)anthracene							<input type="checkbox"/> ML <input type="checkbox"/> MDL
Benzo(a)pyrene							<input type="checkbox"/> ML <input type="checkbox"/> MDL
3,4-benzofluoranthene							<input type="checkbox"/> ML <input type="checkbox"/> MDL

EPA Identification Number	NPDES Permit Number	Facility Name	Outfall Number
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**TABLE C. EFFLUENT PARAMETERS FOR SELECTED POTWS**

Pollutant	Maximum Daily Discharge		Average Daily Discharge			Analytical Method <sup>1</sup>	ML or MDL (include units)
	Value	Units	Value	Units	Number of Samples		
Benzo(ghi)perylene							<input type="checkbox"/> ML <input type="checkbox"/> MDL
Benzo(k)fluoranthene							<input type="checkbox"/> ML <input type="checkbox"/> MDL
Bis (2-chloroethoxy) methane							<input type="checkbox"/> ML <input type="checkbox"/> MDL
Bis (2-chloroethyl) ether							<input type="checkbox"/> ML <input type="checkbox"/> MDL
Bis (2-chloroisopropyl) ether							<input type="checkbox"/> ML <input type="checkbox"/> MDL
Bis (2-ethylhexyl) phthalate							<input type="checkbox"/> ML <input type="checkbox"/> MDL
4-bromophenyl phenyl ether							<input type="checkbox"/> ML <input type="checkbox"/> MDL
Butyl benzyl phthalate							<input type="checkbox"/> ML <input type="checkbox"/> MDL
2-chloronaphthalene							<input type="checkbox"/> ML <input type="checkbox"/> MDL
4-chlorophenyl phenyl ether							<input type="checkbox"/> ML <input type="checkbox"/> MDL
Chrysene							<input type="checkbox"/> ML <input type="checkbox"/> MDL
di-n-butyl phthalate							<input type="checkbox"/> ML <input type="checkbox"/> MDL
di-n-octyl phthalate							<input type="checkbox"/> ML <input type="checkbox"/> MDL
Dibenzo(a,h)anthracene							<input type="checkbox"/> ML <input type="checkbox"/> MDL
1,2-dichlorobenzene							<input type="checkbox"/> ML <input type="checkbox"/> MDL
1,3-dichlorobenzene							<input type="checkbox"/> ML <input type="checkbox"/> MDL
1,4-dichlorobenzene							<input type="checkbox"/> ML <input type="checkbox"/> MDL
3,3-dichlorobenzidine							<input type="checkbox"/> ML <input type="checkbox"/> MDL
Diethyl phthalate							<input type="checkbox"/> ML <input type="checkbox"/> MDL
Dimethyl phthalate							<input type="checkbox"/> ML <input type="checkbox"/> MDL
2,4-dinitrotoluene							<input type="checkbox"/> ML <input type="checkbox"/> MDL
2,6-dinitrotoluene							<input type="checkbox"/> ML <input type="checkbox"/> MDL

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**TABLE C. EFFLUENT PARAMETERS FOR SELECTED POTWS**

Pollutant	Maximum Daily Discharge		Average Daily Discharge			Analytical Method <sup>1</sup>	ML or MDL (include units)
	Value	Units	Value	Units	Number of Samples		
1,2-diphenylhydrazine							<input type="checkbox"/> ML <input type="checkbox"/> MDL
Fluoranthene							<input type="checkbox"/> ML <input type="checkbox"/> MDL
Fluorene							<input type="checkbox"/> ML <input type="checkbox"/> MDL
Hexachlorobenzene							<input type="checkbox"/> ML <input type="checkbox"/> MDL
Hexachlorobutadiene							<input type="checkbox"/> ML <input type="checkbox"/> MDL
Hexachlorocyclo-pentadiene							<input type="checkbox"/> ML <input type="checkbox"/> MDL
Hexachloroethane							<input type="checkbox"/> ML <input type="checkbox"/> MDL
Indeno(1,2,3-cd)pyrene							<input type="checkbox"/> ML <input type="checkbox"/> MDL
Isophorone							<input type="checkbox"/> ML <input type="checkbox"/> MDL
Naphthalene							<input type="checkbox"/> ML <input type="checkbox"/> MDL
Nitrobenzene							<input type="checkbox"/> ML <input type="checkbox"/> MDL
N-nitrosodi-n-propylamine							<input type="checkbox"/> ML <input type="checkbox"/> MDL
N-nitrosodimethylamine							<input type="checkbox"/> ML <input type="checkbox"/> MDL
N-nitrosodiphenylamine							<input type="checkbox"/> ML <input type="checkbox"/> MDL
Phenanthrene							<input type="checkbox"/> ML <input type="checkbox"/> MDL
Pyrene							<input type="checkbox"/> ML <input type="checkbox"/> MDL
1,2,4-trichlorobenzene							<input type="checkbox"/> ML <input type="checkbox"/> MDL

<sup>1</sup> Sampling shall be conducted according to sufficiently sensitive test procedures (i.e., methods) approved under 40 CFR 136 for the analysis of pollutants or pollutant parameters or required under 40 CFR Chapter I, Subchapter N or O. See instructions and 40 CFR 122.21(e)(3).

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EPA Identification Number	NPDES Permit Number	Facility Name	Outfall Number
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**TABLE D. ADDITIONAL POLLUTANTS AS REQUIRED BY NPDES PERMITTING AUTHORITY**

Pollutant (list)	Maximum Daily Discharge		Average Daily Discharge			Analytical Method <sup>1</sup>	ML or MDL (include units)
	Value	Units	Value	Units	Number of Samples		
<input type="checkbox"/> No additional sampling is required by NPDES permitting authority.							
							<input type="checkbox"/> ML <input type="checkbox"/> MDL
							<input type="checkbox"/> ML <input type="checkbox"/> MDL
							<input type="checkbox"/> ML <input type="checkbox"/> MDL
							<input type="checkbox"/> ML <input type="checkbox"/> MDL
							<input type="checkbox"/> ML <input type="checkbox"/> MDL
							<input type="checkbox"/> ML <input type="checkbox"/> MDL
							<input type="checkbox"/> ML <input type="checkbox"/> MDL
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							<input type="checkbox"/> ML <input type="checkbox"/> MDL
							<input type="checkbox"/> ML <input type="checkbox"/> MDL
							<input type="checkbox"/> ML <input type="checkbox"/> MDL
							<input type="checkbox"/> ML <input type="checkbox"/> MDL
							<input type="checkbox"/> ML <input type="checkbox"/> MDL
							<input type="checkbox"/> ML <input type="checkbox"/> MDL

<sup>1</sup> Sampling shall be conducted according to sufficiently sensitive test procedures (i.e., methods) approved under 40 CFR 136 for the analysis of pollutants or pollutant parameters or required under 40 CFR chapter I, subchapter N or O. See instructions and 40 CFR 122.21(e)(3).

EPA Identification Number	NPDES Permit Number	Facility Name	Outfall Number
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**TABLE D. ADDITIONAL POLLUTANTS AS REQUIRED BY NPDES PERMITTING AUTHORITY**

Pollutant (list)	Maximum Daily Discharge		Average Daily Discharge			Analytical Method <sup>1</sup>	ML or MDL (include units)
	Value	Units	Value	Units	Number of Samples		
<input type="checkbox"/> No additional sampling is required by NPDES permitting authority.							
Dieldrin	<0.017	µg/l	<0.010	µg/l	5	EPA 608.1	0.01 µg/l <input type="checkbox"/> ML <input checked="" type="checkbox"/> MDL
Endosulfan I (alpha)	<0.022	µg/l	<0.010	µg/l	5	EPA 608.1	0.01 µg/l <input type="checkbox"/> ML <input checked="" type="checkbox"/> MDL
Endosulfan II (beta)	<0.023	µg/l	<0.011	µg/l	5	EPA 608.1	0.01 µg/l <input type="checkbox"/> ML <input checked="" type="checkbox"/> MDL
Endosulfan sulfate	0.019	µg/l	<0.013	µg/l	5	EPA 608.1	0.01 µg/l <input type="checkbox"/> ML <input checked="" type="checkbox"/> MDL
Endrin	<0.013	µg/l	<0.009	µg/l	5	EPA 608.1	0.01 µg/l <input type="checkbox"/> ML <input checked="" type="checkbox"/> MDL
Endrin aldehyde	<0.015	µg/l	<0.009	µg/l	5	EPA 608.1	0.01 µg/l <input type="checkbox"/> ML <input checked="" type="checkbox"/> MDL
Heptachlor	<0.024	µg/l	<0.011	µg/l	5	EPA 608.1	0.01 µg/l <input type="checkbox"/> ML <input checked="" type="checkbox"/> MDL
Heptachlor epoxide	<0.014	µg/l	<0.009	µg/l	5	EPA 608.1	0.01 µg/l <input type="checkbox"/> ML <input checked="" type="checkbox"/> MDL
PCB-1242	<0.20	µg/l	<0.148	µg/l	5	EPA 608.1	0.2 µg/l <input type="checkbox"/> ML <input checked="" type="checkbox"/> MDL
PCB-1254	<0.20	µg/l	<0.148	µg/l	5	EPA 608.1	0.2 µg/l <input type="checkbox"/> ML <input checked="" type="checkbox"/> MDL
PCB-1224	<0.20	µg/l	<0.172	µg/l	5	EPA 608.1	0.2 µg/l <input type="checkbox"/> ML <input checked="" type="checkbox"/> MDL
PCB-1232	<0.20	µg/l	<0.168	µg/l	5	EPA 608.1	0.2 µg/l <input type="checkbox"/> ML <input checked="" type="checkbox"/> MDL
PCB-1248	<0.20	µg/l	<0.174	µg/l	5	EPA 608.1	0.2 µg/l <input type="checkbox"/> ML <input checked="" type="checkbox"/> MDL
PCB-1260	<0.20	µg/l	<0.147	µg/l	5	EPA 608.1	0.2 µg/l <input type="checkbox"/> ML <input checked="" type="checkbox"/> MDL
PCB-1016	<0.20	µg/l	<0.149	µg/l	5	EPA 608.1	0.2 µg/l <input type="checkbox"/> ML <input checked="" type="checkbox"/> MDL
Toxaphene	<0.40	µg/l	<0.0129	µg/l	5	EPA 608.1	0.4 µg/l <input type="checkbox"/> ML <input checked="" type="checkbox"/> MDL
							<input type="checkbox"/> ML <input type="checkbox"/> MDL

<sup>1</sup>Sampling shall be conducted according to sufficiently sensitive test procedures (i.e., methods) approved under 40 CFR 136 for the analysis of pollutants or pollutant parameters or required under 40 CFR chapter I, subchapter N or O. See instructions and 40 CFR 122.21(e)(3).



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EPA Identification Number	NPDES Permit Number	Facility Name	Outfall Number
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Form Approved 03/05/19

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**TABLE E. EFFLUENT MONITORING FOR WHOLE EFFLUENT TOXICITY**

The table provides response space for whole effluent toxicity sample. Copy the table to report additional test results.

**Test Information**

	Test Number: 1 of 28	Test Number: 2 of 28	Test Number: 3 of 28
Test Species	Ceriodaphnia dubia	Pimephales promelas	Raphidocelis subcapitata (aka Selenastrum capricornutum, Green Algae)
Age at initiation of test	<24 hrs, all within an 8 hour age range	<48 hrs, all within an 24 hour age range	Acclimated to test conditions for 4-7 days
Outfall number	Outfall #001	Outfall #001	Outfall #001
Date sample collected	09/28/15, 09/30/15, 10/02/15	09/28/15, 09/30/15, 10/02/15	09/28/15, 09/30/15, 10/02/15
Date test started	9/29/2015	9/29/2015	9/29/2015
Duration	7 days	7 days	96 hours

**Toxicity Test Methods**

Test method number	EPA Method 1002.0	EPA Method 1000.0	EPA Method 1003.0
Manual title	Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms	Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms	Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms
Edition number and year of publication	4th Edition, 2002, EPA 821-R-02-013	4th Edition, 2002, EPA 821-R-02-013	4th Edition, 2002, EPA 821-R-02-013
Page number(s)	141 - 196	53 - 111	197 - 230

**Sample Type**

Check one:	<input type="checkbox"/> Grab <input checked="" type="checkbox"/> 24-hour composite	<input type="checkbox"/> Grab <input checked="" type="checkbox"/> 24-hour composite	<input type="checkbox"/> Grab <input checked="" type="checkbox"/> 24-hour composite
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**Sample Location**

Check One:	<input type="checkbox"/> Before Disinfection <input type="checkbox"/> After Disinfection <input checked="" type="checkbox"/> After Dechlorination	<input type="checkbox"/> Before Disinfection <input type="checkbox"/> After Disinfection <input checked="" type="checkbox"/> After Dechlorination	<input type="checkbox"/> Before Disinfection <input type="checkbox"/> After Disinfection <input checked="" type="checkbox"/> After Dechlorination
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**Point in Treatment Process**

Describe the point in the treatment process at which the sample was collected for each test.	In the effluent discharge pipe, on the way to Outfall #001 post all treatment processes.	In the effluent discharge pipe, on the way to Outfall #001 post all treatment processes.	In the effluent discharge pipe, on the way to Outfall #001 post all treatment processes.
--	--	--	--

**Toxicity Type**

Indicate for each test whether the test was performed to assess acute or chronic toxicity, or both. (Check one response.)	<input type="checkbox"/> Acute <input checked="" type="checkbox"/> Chronic <input type="checkbox"/> Both	<input type="checkbox"/> Acute <input checked="" type="checkbox"/> Chronic <input type="checkbox"/> Both	<input type="checkbox"/> Acute <input checked="" type="checkbox"/> Chronic <input type="checkbox"/> Both
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EPA Identification Number	NPDES Permit Number	Facility Name	Outfall Number
	WA-0093317	Spokane County Regional Water Reclamation Facility	Outfall #001

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# TABLE E. EFFLUENT MONITORING FOR WHOLE EFFLUENT TOXICITY

The table provides response space for whole effluent toxicity sample. Copy the table to report additional test results.

	Test Number: 1 of 28	Test Number: 2 of 28	Test Number: 3 of 28
<b>Test Type</b>			
Indicate the type of test performed. (Check one response.)	<input type="checkbox"/> Static <input checked="" type="checkbox"/> Static-renewal <input type="checkbox"/> Flow-through	<input type="checkbox"/> Static <input checked="" type="checkbox"/> Static-renewal <input type="checkbox"/> Flow-through	<input checked="" type="checkbox"/> Static <input type="checkbox"/> Static-renewal <input type="checkbox"/> Flow-through
<b>Source of Dilution Water</b>			
Indicate the source of dilution water. (Check one response.)	<input checked="" type="checkbox"/> Laboratory water <input type="checkbox"/> Receiving water	<input checked="" type="checkbox"/> Laboratory water <input type="checkbox"/> Receiving water	<input checked="" type="checkbox"/> Laboratory water <input type="checkbox"/> Receiving water
If laboratory water, specify type.	Reconstituted moderately hard	Reconstituted moderately hard	Reconstituted moderately hard
If receiving water, specify source			
<b>Type of Dilution Water</b>			
Indicate the type of dilution water. If salt water specify "natural" or type of artificail sea salts or brine used.	<input checked="" type="checkbox"/> Fresh water <input type="checkbox"/> Salt water (specify)	<input checked="" type="checkbox"/> Fresh water <input type="checkbox"/> Salt water (specify)	<input checked="" type="checkbox"/> Fresh water <input type="checkbox"/> Salt water (specify)
<b>Percentage Effluent Used</b>			
Specify the percentage effluent used for all concetrations in the test series.	6.25, 8.4, 25.0, 56.5, and 100	6.25, 8.4, 25.0, 56.5, and 100	6.25, 8.4, 25.0, 56.5, and 100
<b>Parameters Tested</b>			
Check the parameters tested.	<input checked="" type="checkbox"/> pH <input type="checkbox"/> Salinity <input checked="" type="checkbox"/> Temperature	<input checked="" type="checkbox"/> Ammonia <input checked="" type="checkbox"/> Dissolved oxygen <input type="checkbox"/> pH <input type="checkbox"/> Salinity <input checked="" type="checkbox"/> Temperature	<input checked="" type="checkbox"/> Ammonia <input checked="" type="checkbox"/> Dissolved oxygen <input checked="" type="checkbox"/> pH <input type="checkbox"/> Salinity <input checked="" type="checkbox"/> Temperature
<b>Acute Test Results</b>			
Percent survival in 100% effluent			
LC <sub>50</sub>			
95% confidence interval			
Control percent survival			

EPA Identification Number	NPDES Permit Number	Facility Name	Outfall Number
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TABLE E. EFFLUENT MONITORING FOR WHOLE EFFLUENT TOXICITY			
The table provides response space for whole effluent toxicity sample. Copy the table to report additional test results.			
	Test Number: 1 of 28	Test Number: 2 of 28	Test Number: 3 of 28
<b>Acute Test Results Continued</b>			
Other (describe)			
<b>Chronic Test Results</b>			
NOEC	100	100	56.5
IC <sub>25</sub>	>100	>100	84.8
Control percent survival	100	95	NA
Other (describe)	Reproduction = 31.3 young per adult	Growth = 0.605 mg/organism	Cell Density = 3.356 x 10 <sup>6</sup> cells/ml at termination
<b>Quality Control/Quality Assurance</b>			
Is reference toxicant data available?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Was reference toxicant test within acceptable bounds?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
What date was reference toxicant test run (MM/DD/YYYY)?	9/9/2015	9/15/2015	9/29/2015
Other (describe)			

EPA Identification Number	NPDES Permit Number	Facility Name	Outfall Number
	WA-0093317	Spokane County Regional Water Reclamation Facility	Outfall #001

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**TABLE E. EFFLUENT MONITORING FOR WHOLE EFFLUENT TOXICITY**

The table provides response space for whole effluent toxicity sample. Copy the table to report additional test results.

**Test Information**

	Test Number: 4 of 28	Test Number: 5 of 28	Test Number: 6 of 28
Test Species	Pimephales promelas	Ceriodaphnia dubia	Raphidocelis subcapitata (aka Selenastrum capricornutum, Green Algae)
Age at initiation of test	<48 hrs, all within an 24 hour age range	<24 hrs, all within an 8 hour age range	Acclimated to test conditions for 4-7 days
Outfall number	Outfall #001	Outfall #001	Outfall #001
Date sample collected	11/30/15, 12/02/15, 12/04/15	02/08/16, 02/10/16, 02/12/16	4/20/2016
Date test started	12/1/2015	2/9/2016	4/21/2016
Duration	7 days	7 days	96 hours

**Toxicity Test Methods**

Test method number	EPA Method 1000.0	EPA Method 1002.0	EPA Method 1003.0
Manual title	Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms	Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms	Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms
Edition number and year of publication	4th Edition, 2002, EPA 821-R-02-013	4th Edition, 2002, EPA 821-R-02-013	4th Edition, 2002, EPA 821-R-02-013
Page number(s)	53 - 111	141 - 196	197 - 230

**Sample Type**

Check one:	<input type="checkbox"/> Grab <input checked="" type="checkbox"/> 24-hour composite	<input type="checkbox"/> Grab <input checked="" type="checkbox"/> 24-hour composite	<input type="checkbox"/> Grab <input checked="" type="checkbox"/> 24-hour composite
------------	--	--	--

**Sample Location**

Check One:	<input type="checkbox"/> Before Disinfection <input type="checkbox"/> After Disinfection <input checked="" type="checkbox"/> After Dechlorination	<input type="checkbox"/> Before Disinfection <input type="checkbox"/> After Disinfection <input checked="" type="checkbox"/> After Dechlorination	<input type="checkbox"/> Before Disinfection <input type="checkbox"/> After Disinfection <input checked="" type="checkbox"/> After Dechlorination
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**Point in Treatment Process**

Describe the point in the treatment process at which the sample was collected for each test.	In the effluent discharge pipe, on the way to Outfall #001 post all treatment processes.	In the effluent discharge pipe, on the way to Outfall #001 post all treatment processes.	In the effluent discharge pipe, on the way to Outfall #001 post all treatment processes.
--	--	--	--

**Toxicity Type**

Indicate for each test whether the test was performed to assess acute or chronic toxicity, or both. (Check one response.)	<input type="checkbox"/> Acute <input checked="" type="checkbox"/> Chronic <input type="checkbox"/> Both	<input type="checkbox"/> Acute <input checked="" type="checkbox"/> Chronic <input type="checkbox"/> Both	<input type="checkbox"/> Acute <input checked="" type="checkbox"/> Chronic <input type="checkbox"/> Both
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EPA Identification Number	NPDES Permit Number	Facility Name	Outfall Number
	WA-0093317	Spokane County Regional Water Reclamation Facility	Outfall #001

Form Approved 03/05/19  
OMB No. 2040-004

# TABLE E. EFFLUENT MONITORING FOR WHOLE EFFLUENT TOXICITY

The table provides response space for whole effluent toxicity sample. Copy the table to report additional test results.

	Test Number: 4 of 28	Test Number: 5 of 28	Test Number: 6 of 28
<b>Test Type</b>			
Indicate the type of test performed. (Check one response.)	<input type="checkbox"/> Static <input checked="" type="checkbox"/> Static-renewal <input type="checkbox"/> Flow-through	<input type="checkbox"/> Static <input checked="" type="checkbox"/> Static-renewal <input type="checkbox"/> Flow-through	<input checked="" type="checkbox"/> Static <input type="checkbox"/> Static-renewal <input type="checkbox"/> Flow-through
<b>Source of Dilution Water</b>			
Indicate the source of dilution water. (Check one response.)	<input checked="" type="checkbox"/> Laboratory water <input type="checkbox"/> Receiving water	<input checked="" type="checkbox"/> Laboratory water <input type="checkbox"/> Receiving water	<input checked="" type="checkbox"/> Laboratory water <input type="checkbox"/> Receiving water
If laboratory water, specify type.	Reconstituted moderately hard	Reconstituted moderately hard	Reconstituted moderately hard
If receiving water, specify source			
<b>Type of Dilution Water</b>			
Indicate the type of dilution water. If salt water specify "natural" or type of artificail sea salts or brine used.	<input checked="" type="checkbox"/> Fresh water <input type="checkbox"/> Salt water (specify)	<input checked="" type="checkbox"/> Fresh water <input type="checkbox"/> Salt water (specify)	<input checked="" type="checkbox"/> Fresh water <input type="checkbox"/> Salt water (specify)
<b>Percentage Effluent Used</b>			
Specify the percentage effluent used for all concetrations in the test series.	6.25, 8.4, 25.0, 56.5, and 100	6.25, 8.4, 25.0, 56.5, and 100	6.25, 8.4, 25.0, 56.5, and 100
<b>Parameters Tested</b>			
Check the parameters tested.	<input checked="" type="checkbox"/> pH <input type="checkbox"/> Salinity <input checked="" type="checkbox"/> Temperature	<input checked="" type="checkbox"/> pH <input type="checkbox"/> Salinity <input checked="" type="checkbox"/> Temperature	<input checked="" type="checkbox"/> pH <input type="checkbox"/> Salinity <input checked="" type="checkbox"/> Temperature
	<input checked="" type="checkbox"/> Ammonia <input checked="" type="checkbox"/> Dissolved oxygen	<input checked="" type="checkbox"/> Ammonia <input checked="" type="checkbox"/> Dissolved oxygen	<input checked="" type="checkbox"/> Ammonia <input checked="" type="checkbox"/> Dissolved oxygen
<b>Acute Test Results</b>			
Percent survival in 100% effluent			
LC <sub>50</sub>			
95% confidence interval			
Control percent survival			

EPA Identification Number	NPDES Permit Number	Facility Name	Outfall Number
	WA-0093317	Spokane County Regional Water Reclamation Facility	Outfall #001

Form Approved 03/05/19  
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# TABLE E. EFFLUENT MONITORING FOR WHOLE EFFLUENT TOXICITY

The table provides response space for whole effluent toxicity sample. Copy the table to report additional test results.

	Test Number: 4 of 28	Test Number: 5 of 28	Test Number: 6 of 28
<b>Acute Test Results Continued</b>			
Other (describe)			
<b>Chronic Test Results</b>			
NOEC	100	100	100
IC <sub>25</sub>	>100	>100	>100
Control percent survival	100	100	NA
Other (describe)	Growth = 0.666 mg/organism	Reproduction = 24.2 young per adult	Cell Density = 1.563 x 10 <sup>6</sup> cells/ml at termination
<b>Quality Control/Quality Assurance</b>			
Is reference toxicant data available?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Was reference toxicant test within acceptable bounds?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
What date was reference toxicant test run (MM/DD/YYYY)?	12/29/2015	2/9/2016	4/21/2016
Other (describe)			



EPA Identification Number	NPDES Permit Number	Facility Name	Outfall Number
	WA-0093317	Spokane County Regional Water Reclamation Facility	Outfall #001

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**TABLE E. EFFLUENT MONITORING FOR WHOLE EFFLUENT TOXICITY**

The table provides response space for whole effluent toxicity sample. Copy the table to report additional test results.

**Test Information**

	Test Number: 7 of 28	Test Number: 8 of 28	Test Number: 9 of 28
Test Species	Pimephales promelas	Ceriodaphnia dubia	Raphidocelis subcapitata (aka Selenastrum capricornutum, Green Algae)
Age at initiation of test	<48 hrs, all within an 24 hour age range	<24 hrs, all within an 8 hour age range	Acclimated to test conditions for 4-7 days
Outfall number	Outfall #001	Outfall #001	Outfall #001
Date sample collected	08/22/16, 08/24/16, 08/26/16	10/31/16, 11/02/16, 11/04/16	2/6/2017
Date test started	8/23/2016	11/1/2016	2/7/2017
Duration	7 days	7 days	96 hours

**Toxicity Test Methods**

Test method number	EPA Method 1000.0	EPA Method 1002.0	EPA Method 1003.0
Manual title	Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms	Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms	Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms
Edition number and year of publication	4th Edition, 2002, EPA 821-R-02-013	4th Edition, 2002, EPA 821-R-02-013	4th Edition, 2002, EPA 821-R-02-013
Page number(s)	53 - 111	141 - 196	197 - 230

**Sample Type**

Check one:	<input type="checkbox"/> Grab <input checked="" type="checkbox"/> 24-hour composite	<input type="checkbox"/> Grab <input checked="" type="checkbox"/> 24-hour composite	<input type="checkbox"/> Grab <input checked="" type="checkbox"/> 24-hour composite
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**Sample Location**

Check One:	<input type="checkbox"/> Before Disinfection <input type="checkbox"/> After Disinfection <input checked="" type="checkbox"/> After Dechlorination	<input type="checkbox"/> Before Disinfection <input type="checkbox"/> After Disinfection <input checked="" type="checkbox"/> After Dechlorination	<input type="checkbox"/> Before Disinfection <input type="checkbox"/> After Disinfection <input checked="" type="checkbox"/> After Dechlorination
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**Point in Treatment Process**

Describe the point in the treatment process at which the sample was collected for each test.	In the effluent discharge pipe, on the way to Outfall #001 post all treatment processes.	In the effluent discharge pipe, on the way to Outfall #001 post all treatment processes.	In the effluent discharge pipe, on the way to Outfall #001 post all treatment processes.
--	--	--	--

**Toxicity Type**

Indicate for each test whether the test was performed to assess acute or chronic toxicity, or both. (Check one response.)	<input type="checkbox"/> Acute <input checked="" type="checkbox"/> Chronic <input type="checkbox"/> Both	<input type="checkbox"/> Acute <input checked="" type="checkbox"/> Chronic <input type="checkbox"/> Both	<input type="checkbox"/> Acute <input checked="" type="checkbox"/> Chronic <input type="checkbox"/> Both
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EPA Identification Number	NPDES Permit Number	Facility Name	Outfall Number
	WA-0093317	Spokane County Regional Water Reclamation Facility	Outfall #001

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**TABLE E. EFFLUENT MONITORING FOR WHOLE EFFLUENT TOXICITY**

The table provides response space for whole effluent toxicity sample. Copy the table to report additional test results.

	Test Number: 7 of 28	Test Number: 8 of 28	Test Number: 9 of 28
<b>Test Type</b>			
Indicate the type of test performed. (Check one response.)	<input type="checkbox"/> Static <input checked="" type="checkbox"/> Static-renewal <input type="checkbox"/> Flow-through	<input type="checkbox"/> Static <input checked="" type="checkbox"/> Static-renewal <input type="checkbox"/> Flow-through	<input checked="" type="checkbox"/> Static <input type="checkbox"/> Static-renewal <input type="checkbox"/> Flow-through
<b>Source of Dilution Water</b>			
Indicate the source of dilution water. (Check one response.)	<input checked="" type="checkbox"/> Laboratory water <input type="checkbox"/> Receiving water	<input checked="" type="checkbox"/> Laboratory water <input type="checkbox"/> Receiving water	<input checked="" type="checkbox"/> Laboratory water <input type="checkbox"/> Receiving water
If laboratory water, specify type.	Reconstituted moderately hard	Reconstituted moderately hard	Reconstituted moderately hard
If receiving water, specify source			
<b>Type of Dilution Water</b>			
Indicate the type of dilution water. If salt water specify "natural" or type of artificial sea salts or brine used.	<input checked="" type="checkbox"/> Fresh water <input type="checkbox"/> Salt water (specify)	<input checked="" type="checkbox"/> Fresh water <input type="checkbox"/> Salt water (specify)	<input checked="" type="checkbox"/> Fresh water <input type="checkbox"/> Salt water (specify)
<b>Percentage Effluent Used</b>			
Specify the percentage effluent used for all concentrations in the test series.	6.25, 8.4, 25.0, 56.5, and 100	6.25, 8.4, 25.0, 56.5, and 100	6.25, 8.4, 25.0, 56.5, and 100
<b>Parameters Tested</b>			
Check the parameters tested.	<input checked="" type="checkbox"/> pH <input type="checkbox"/> Salinity <input checked="" type="checkbox"/> Temperature	<input checked="" type="checkbox"/> Ammonia <input checked="" type="checkbox"/> Dissolved oxygen	<input checked="" type="checkbox"/> pH <input type="checkbox"/> Salinity <input checked="" type="checkbox"/> Temperature
<b>Acute Test Results</b>			
Percent survival in 100% effluent			
LC <sub>50</sub>			
95% confidence interval			
Control percent survival			

EPA Identification Number	NPDES Permit Number	Facility Name	Outfall Number
	WA-0093317	Spokane County Regional Water Reclamation Facility	Outfall #001

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**TABLE E. EFFLUENT MONITORING FOR WHOLE EFFLUENT TOXICITY**

The table provides response space for whole effluent toxicity sample. Copy the table to report additional test results.

	Test Number: 7 of 28	Test Number: 8 of 28	Test Number: 9 of 28
<b>Acute Test Results Continued</b>			
Other (describe)			
<b>Chronic Test Results</b>			
NOEC	100	100	56.5
IC <sub>25</sub>	>100	>100	98.10%
Control percent survival	90	100	NA
Other (describe)	Growth = 0.748 mg/organism	Reproduction = 32.8 young per adult	Cell Density = 2.338 x 10 <sup>6</sup> cells/ml at termination
<b>Quality Control/Quality Assurance</b>			
Is reference toxicant data available?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Was reference toxicant test within acceptable bounds?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
What date was reference toxicant test run (MM/DD/YYYY)?	8/9/2016	11/1/2016	2/14/2017
Other (describe)			

EPA Identification Number	NPDES Permit Number	Facility Name	Outfall Number
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**TABLE E. EFFLUENT MONITORING FOR WHOLE EFFLUENT TOXICITY**

The table provides response space for whole effluent toxicity sample. Copy the table to report additional test results.

**Test Information**

	Test Number: 10 of 28	Test Number: 11 of 28	Test Number: 12 of 28
Test Species	Pimephales promelas	Ceriodaphnia dubia	Ceriodaphnia dubia
Age at initiation of test	<48 hrs, all within an 24 hour age range	<24 hrs, all within an 8 hour age range	<24 hrs, all within an 8 hour age range
Outfall number	Outfall #001	Outfall #001	Outfall #001
Date sample collected	05/08/17, 05/10/17, 05/12/17	08/07/17, 08/09/17, 08/11/17	09/22/17, 09/25/17, 09/27/17
Date test started	5/9/2017	8/8/2017	9/23/2017
Duration	7 days	7 days	7 days

**Toxicity Test Methods**

Test method number	EPA Method 1000.0	EPA Method 1002.0	EPA Method 1002.0
Manual title	Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms	Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms	Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms
Edition number and year of publication	4th Edition, 2002, EPA 821-R-02-013	4th Edition, 2002, EPA 821-R-02-013	4th Edition, 2002, EPA 821-R-02-013
Page number(s)	53 - 111	141 - 196	141 - 196

**Sample Type**

Check one:	<input type="checkbox"/> Grab <input checked="" type="checkbox"/> 24-hour composite	<input type="checkbox"/> Grab <input checked="" type="checkbox"/> 24-hour composite	<input type="checkbox"/> Grab <input checked="" type="checkbox"/> 24-hour composite
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**Sample Location**

Check One:	<input type="checkbox"/> Before Disinfection <input type="checkbox"/> After Disinfection <input checked="" type="checkbox"/> After Dechlorination	<input type="checkbox"/> Before Disinfection <input type="checkbox"/> After Disinfection <input checked="" type="checkbox"/> After Dechlorination	<input type="checkbox"/> Before Disinfection <input type="checkbox"/> After Disinfection <input checked="" type="checkbox"/> After Dechlorination
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**Point in Treatment Process**

Describe the point in the treatment process at which the sample was collected for each test.	In the effluent discharge pipe, on the way to Outfall #001 post all treatment processes.	In the effluent discharge pipe, on the way to Outfall #001 post all treatment processes.	In the effluent discharge pipe, on the way to Outfall #001 post all treatment processes.
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**Toxicity Type**

Indicate for each test whether the test was performed to assess acute or chronic toxicity, or both. (Check one response.)	<input type="checkbox"/> Acute <input checked="" type="checkbox"/> Chronic <input type="checkbox"/> Both	<input type="checkbox"/> Acute <input checked="" type="checkbox"/> Chronic <input type="checkbox"/> Both	<input type="checkbox"/> Acute <input checked="" type="checkbox"/> Chronic <input type="checkbox"/> Both
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EPA Identification Number	NPDES Permit Number	Facility Name	Outfall Number
	WA-0093317	Spokane County Regional Water Reclamation Facility	Outfall #001

Form Approved 03/05/19  
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# TABLE E. EFFLUENT MONITORING FOR WHOLE EFFLUENT TOXICITY

The table provides response space for whole effluent toxicity sample. Copy the table to report additional test results.

	Test Number: 10 of 28	Test Number: 11 of 28	Test Number: 12 of 28
<b>Test Type</b>			
Indicate the type of test performed. (Check one response.)	<input type="checkbox"/> Static <input checked="" type="checkbox"/> Static-renewal <input type="checkbox"/> Flow-through	<input type="checkbox"/> Static <input checked="" type="checkbox"/> Static-renewal <input type="checkbox"/> Flow-through	<input type="checkbox"/> Static <input checked="" type="checkbox"/> Static-renewal <input type="checkbox"/> Flow-through
<b>Source of Dilution Water</b>			
Indicate the source of dilution water. (Check one response.)	<input checked="" type="checkbox"/> Laboratory water <input type="checkbox"/> Receiving water	<input checked="" type="checkbox"/> Laboratory water <input type="checkbox"/> Receiving water	<input checked="" type="checkbox"/> Laboratory water <input type="checkbox"/> Receiving water
If laboratory water, specify type.	Reconstituted moderately hard	Reconstituted moderately hard	Reconstituted moderately hard
If receiving water, specify source			
<b>Type of Dilution Water</b>			
Indicate the type of dilution water. If salt water specify "natural" or type of artificial sea salts or brine used.	<input checked="" type="checkbox"/> Fresh water <input type="checkbox"/> Salt water (specify)	<input checked="" type="checkbox"/> Fresh water <input type="checkbox"/> Salt water (specify)	<input checked="" type="checkbox"/> Fresh water <input type="checkbox"/> Salt water (specify)
<b>Percentage Effluent Used</b>			
Specify the percentage effluent used for all concentrations in the test series.	6.25, 8.4, 25.0, 56.5, and 100	6.25, 8.4, 25.0, 56.5, and 100	6.25, 8.4, 25.0, 56.5, and 100
<b>Parameters Tested</b>			
Check the parameters tested.	<input checked="" type="checkbox"/> pH <input type="checkbox"/> Salinity <input checked="" type="checkbox"/> Temperature	<input checked="" type="checkbox"/> Ammonia <input checked="" type="checkbox"/> Dissolved oxygen	<input checked="" type="checkbox"/> pH <input type="checkbox"/> Salinity <input checked="" type="checkbox"/> Temperature
<b>Acute Test Results</b>			
Percent survival in 100% effluent			
LC <sub>50</sub>			
95% confidence interval			
Control percent survival			

EPA Identification Number	NPDES Permit Number	Facility Name	Outfall Number
	WA-0093317	Spokane County Regional Water Reclamation Facility	Outfall #001

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**TABLE E. EFFLUENT MONITORING FOR WHOLE EFFLUENT TOXICITY**

The table provides response space for whole effluent toxicity sample. Copy the table to report additional test results.

	Test Number: 10 of 28	Test Number: 11 of 28	Test Number: 12 of 28
<b>Acute Test Results Continued</b>			
Other (describe)			
<b>Chronic Test Results</b>			
NOEC	100	6.25	100
IC <sub>25</sub>	>100	7.24	>100
Control percent survival	100	100	100
Other (describe)	Growth = 0.933 mg/organism	Reproduction = 32.0 young per adult	Reproduction = 34.7 young per adult
<b>Quality Control/Quality Assurance</b>			
Is reference toxicant data available?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Was reference toxicant test within acceptable bounds?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
What date was reference toxicant test run (MM/DD/YYYY)?	5/9/2017	8/1/2017	9/7/2017
Other (describe)		This test showed a statistically significant difference to the control. Three retests were performed.	First retest

EPA Identification Number	NPDES Permit Number	Facility Name	Outfall Number
	WA-0093317	Spokane County Regional Water Reclamation Facility	Outfall #001

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**TABLE E. EFFLUENT MONITORING FOR WHOLE EFFLUENT TOXICITY**

The table provides response space for whole effluent toxicity sample. Copy the table to report additional test results.

**Test Information**

	Test Number: 13 of 28	Test Number: 14 of 28	Test Number: 15 of 28
Test Species	Ceriodaphnia dubia	Raphidocelis subcapitata (aka Selenastrum capricornutum, Green Algae)	Ceriodaphnia dubia
Age at initiation of test	<24 hrs, all within an 8 hour age range	Acclimated to test conditions for 4-7 days	<24 hrs, all within an 8 hour age range
Outfall number	Outfall #001	Outfall #001	Outfall #001
Date sample collected	10/02/17, 10/04/17, 10/06/17	10/02/17, 10/04/17, 10/06/17	11/13/17, 11/15/17, 11/17/17
Date test started	10/3/2017	10/3/2017	11/14/2017
Duration	7 days	96 hours	7 days

**Toxicity Test Methods**

Test method number	EPA Method 1002.0	EPA Method 1003.0	EPA Method 1003.0
Manual title	Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms	Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms	Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms
Edition number and year of publication	4th Edition, 2002, EPA 821-R-02-013	4th Edition, 2002, EPA 821-R-02-013	4th Edition, 2002, EPA 821-R-02-013
Page number(s)	141 - 196	197 - 230	141 - 196

**Sample Type**

Check one:	<input type="checkbox"/> Grab <input checked="" type="checkbox"/> 24-hour composite	<input type="checkbox"/> Grab <input checked="" type="checkbox"/> 24-hour composite	<input type="checkbox"/> Grab <input checked="" type="checkbox"/> 24-hour composite
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**Sample Location**

Check One:	<input type="checkbox"/> Before Disinfection <input type="checkbox"/> After Disinfection <input checked="" type="checkbox"/> After Dechlorination	<input type="checkbox"/> Before Disinfection <input type="checkbox"/> After Disinfection <input checked="" type="checkbox"/> After Dechlorination	<input type="checkbox"/> Before Disinfection <input type="checkbox"/> After Disinfection <input checked="" type="checkbox"/> After Dechlorination
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**Point in Treatment Process**

Describe the point in the treatment process at which the sample was collected for each test.	In the effluent discharge pipe, on the way to Outfall #001 post all treatment processes.	In the effluent discharge pipe, on the way to Outfall #001 post all treatment processes.	In the effluent discharge pipe, on the way to Outfall #001 post all treatment processes.
--	--	--	--

**Toxicity Type**

Indicate for each test whether the test was performed to assess acute or chronic toxicity, or both. (Check one response.)	<input type="checkbox"/> Acute <input checked="" type="checkbox"/> Chronic <input type="checkbox"/> Both	<input type="checkbox"/> Acute <input checked="" type="checkbox"/> Chronic <input type="checkbox"/> Both	<input type="checkbox"/> Acute <input checked="" type="checkbox"/> Chronic <input type="checkbox"/> Both
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EPA Identification Number	NPDES Permit Number	Facility Name	Outfall Number
	WA-0093317	Spokane County Regional Water Reclamation Facility	Outfall #001

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#### TABLE E. EFFLUENT MONITORING FOR WHOLE EFFLUENT TOXICITY

The table provides response space for whole effluent toxicity sample. Copy the table to report additional test results.

	Test Number: 13 of 28	Test Number: 14 of 28	Test Number: 15 of 28
<b>Test Type</b>			
Indicate the type of test performed. (Check one response.)	<input type="checkbox"/> Static <input checked="" type="checkbox"/> Static-renewal <input type="checkbox"/> Flow-through	<input checked="" type="checkbox"/> Static <input type="checkbox"/> Static-renewal <input type="checkbox"/> Flow-through	<input type="checkbox"/> Static <input checked="" type="checkbox"/> Static-renewal <input type="checkbox"/> Flow-through
<b>Source of Dilution Water</b>			
Indicate the source of dilution water. (Check one response.)	<input checked="" type="checkbox"/> Laboratory water <input type="checkbox"/> Receiving water	<input checked="" type="checkbox"/> Laboratory water <input type="checkbox"/> Receiving water	<input checked="" type="checkbox"/> Laboratory water <input type="checkbox"/> Receiving water
If laboratory water, specify type.	Reconstituted moderately hard	Reconstituted moderately hard	Reconstituted moderately hard
If receiving water, specify source			
<b>Type of Dilution Water</b>			
Indicate the type of dilution water. If salt water specify "natural" or type of artificial sea salts or brine used.	<input checked="" type="checkbox"/> Fresh water <input type="checkbox"/> Salt water (specify)	<input checked="" type="checkbox"/> Fresh water <input type="checkbox"/> Salt water (specify)	<input checked="" type="checkbox"/> Fresh water <input type="checkbox"/> Salt water (specify)
<b>Percentage Effluent Used</b>			
Specify the percentage effluent used for all concentrations in the test series.	6.25, 8.4, 25.0, 56.5, and 100	6.25, 8.4, 25.0, 56.5, and 100	6.25, 8.4, 25.0, 56.5, and 100
<b>Parameters Tested</b>			
Check the parameters tested.	<input checked="" type="checkbox"/> pH <input type="checkbox"/> Salinity <input checked="" type="checkbox"/> Temperature	<input checked="" type="checkbox"/> pH <input type="checkbox"/> Salinity <input checked="" type="checkbox"/> Temperature	<input checked="" type="checkbox"/> pH <input type="checkbox"/> Salinity <input checked="" type="checkbox"/> Temperature
	<input checked="" type="checkbox"/> Ammonia <input checked="" type="checkbox"/> Dissolved oxygen	<input checked="" type="checkbox"/> Ammonia <input checked="" type="checkbox"/> Dissolved oxygen	<input checked="" type="checkbox"/> Ammonia <input checked="" type="checkbox"/> Dissolved oxygen
<b>Acute Test Results</b>			
Percent survival in 100% effluent			
LC <sub>50</sub>			
95% confidence interval			
Control percent survival			



EPA Identification Number	NPDES Permit Number	Facility Name	Outfall Number
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**TABLE E. EFFLUENT MONITORING FOR WHOLE EFFLUENT TOXICITY**

The table provides response space for whole effluent toxicity sample. Copy the table to report additional test results.

	Test Number: 13 of 28	Test Number: 14 of 28	Test Number: 15 of 28
<b>Acute Test Results Continued</b>			
Other (describe)			
<b>Chronic Test Results</b>			
NOEC	100	8.4	100
IC <sub>25</sub>	>100	41.9	>100
Control percent survival	100	NA	100
Other (describe)	Reproduction = 32.4 young per adult	Cell Density = 4.521 x 10 <sup>6</sup> cells/ml at termination	Reproduction = 35.1 young per adult
<b>Quality Control/Quality Assurance</b>			
Is reference toxicant data available?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Was reference toxicant test within acceptable bounds?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
What date was reference toxicant test run (MM/DD/YYYY)?	10/3/2017	10/3/2017	11/7/2017
Other (describe)	Second retest		Third retest

EPA Identification Number	NPDES Permit Number	Facility Name	Outfall Number
	WA-0093317	Spokane County Regional Water Reclamation Facility	Outfall #001

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**TABLE E. EFFLUENT MONITORING FOR WHOLE EFFLUENT TOXICITY**

The table provides response space for whole effluent toxicity sample. Copy the table to report additional test results.

**Test Information**

	Test Number: 16 of 28	Test Number: 17 of 28	Test Number: 18 of 28
Test Species	Pimephales promelas	Ceriodaphnia dubia	Raphidocelis subcapitata (aka Selenastrum)
Age at initiation of test	<48 hrs, all within an 24 hour age range	<24 hrs, all within an 8 hour age range	Acclimated to test conditions for 4-7 days
Outfall number	Outfall #001	Outfall #001	Outfall #001
Date sample collected	02/05/18, 02/07/18, 02/09/18	04/02/18, 04/04/18, 04/06/18	8/16/2018
Date test started	2/6/2018	4/3/2018	8/17/2018
Duration	7 days	7 days	96 hours

**Toxicity Test Methods**

Test method number	EPA Method 1000.0	EPA Method 1002.0	EPA Method 1003.0
Manual title	Short-Term Methods for Estimating the Chronic	Short-Term Methods for Estimating the Chronic	Short-Term Methods for Estimating the Chronic
Edition number and year of publication	4th Edition, 2002, EPA 821-R-02-013	4th Edition, 2002, EPA 821-R-02-013	4th Edition, 2002, EPA 821-R-02-013
Page number(s)	53 - 111	141 - 196	197 - 230

**Sample Type**

Check one:	<input type="checkbox"/> Grab <input checked="" type="checkbox"/> 24-hour composite	<input type="checkbox"/> Grab <input checked="" type="checkbox"/> 24-hour composite	<input type="checkbox"/> Grab <input checked="" type="checkbox"/> 24-hour composite
------------	--	--	--

**Sample Location**

Check One:	<input type="checkbox"/> Before Disinfection <input type="checkbox"/> After Disinfection <input checked="" type="checkbox"/> After Dechlorination	<input type="checkbox"/> Before Disinfection <input type="checkbox"/> After Disinfection <input checked="" type="checkbox"/> After Dechlorination	<input type="checkbox"/> Before Disinfection <input type="checkbox"/> After Disinfection <input checked="" type="checkbox"/> After Dechlorination
------------	---	---	---

**Point in Treatment Process**

Describe the point in the treatment process at which the sample was collected for each test.	In the effluent discharge pipe, on the way to Outfall #001 post all treatment processes.	In the effluent discharge pipe, on the way to Outfall #001 post all treatment processes.	In the effluent discharge pipe, on the way to Outfall #001 post all treatment processes.
--	--	--	--

**Toxicity Type**

Indicate for each test whether the test was performed to assess acute or chronic toxicity, or both. (Check one response.)	<input type="checkbox"/> Acute <input checked="" type="checkbox"/> Chronic <input type="checkbox"/> Both	<input type="checkbox"/> Acute <input checked="" type="checkbox"/> Chronic <input type="checkbox"/> Both	<input type="checkbox"/> Acute <input checked="" type="checkbox"/> Chronic <input type="checkbox"/> Both
---	--	--	--

EPA Identification Number	NPDES Permit Number	Facility Name	Outfall Number
	WA-0093317	Spokane County Regional Water Reclamation Facility	Outfall #001

Form Approved 03/05/19  
OMB No. 2040-004

# TABLE E. EFFLUENT MONITORING FOR WHOLE EFFLUENT TOXICITY

The table provides response space for whole effluent toxicity sample. Copy the table to report additional test results.

	Test Number: 16 of 28	Test Number: 17 of 28	Test Number: 18 of 28
<b>Test Type</b>			
Indicate the type of test performed. (Check one response.)	<input type="checkbox"/> Static <input checked="" type="checkbox"/> Static-renewal <input type="checkbox"/> Flow-through	<input type="checkbox"/> Static <input checked="" type="checkbox"/> Static-renewal <input type="checkbox"/> Flow-through	<input checked="" type="checkbox"/> Static <input type="checkbox"/> Static-renewal <input type="checkbox"/> Flow-through
<b>Source of Dilution Water</b>			
Indicate the source of dilution water. (Check one response.)	<input checked="" type="checkbox"/> Laboratory water <input type="checkbox"/> Receiving water	<input checked="" type="checkbox"/> Laboratory water <input type="checkbox"/> Receiving water	<input checked="" type="checkbox"/> Laboratory water <input type="checkbox"/> Receiving water
If laboratory water, specify type.	Reconstituted moderately hard	Reconstituted moderately hard	Reconstituted moderately hard
If receiving water, specify source			
<b>Type of Dilution Water</b>			
Indicate the type of dilution water. If salt water specify "natural" or type of artificail sea salts or brine used.	<input checked="" type="checkbox"/> Fresh water <input type="checkbox"/> Salt water (specify)	<input checked="" type="checkbox"/> Fresh water <input type="checkbox"/> Salt water (specify)	<input checked="" type="checkbox"/> Fresh water <input type="checkbox"/> Salt water (specify)
<b>Percentage Effluent Used</b>			
Specify the percentage effluent used for all concetrations in the test series.	6.25, 8.4, 25.0, 56.5, and 100	6.25, 8.4, 25.0, 56.5, and 100	6.25, 8.4, 25.0, 56.5, and 100
<b>Parameters Tested</b>			
Check the parameters tested.	<input checked="" type="checkbox"/> pH <input type="checkbox"/> Salinity <input checked="" type="checkbox"/> Temperature <input checked="" type="checkbox"/> Ammonia <input checked="" type="checkbox"/> Dissolved oxygen	<input checked="" type="checkbox"/> pH <input type="checkbox"/> Salinity <input checked="" type="checkbox"/> Temperature <input checked="" type="checkbox"/> Ammonia <input checked="" type="checkbox"/> Dissolved oxygen	<input checked="" type="checkbox"/> pH <input type="checkbox"/> Salinity <input checked="" type="checkbox"/> Temperature <input checked="" type="checkbox"/> Ammonia <input checked="" type="checkbox"/> Dissolved oxygen
<b>Acute Test Results</b>			
Percent survival in 100% effluent			
LC <sub>50</sub>			
95% confidence interval			
Control percent survival			

EPA Identification Number	NPDES Permit Number	Facility Name	Outfall Number
	WA-0093317	Spokane County Regional Water Reclamation Facility	Outfall #001

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TABLE E. EFFLUENT MONITORING FOR WHOLE EFFLUENT TOXICITY			
The table provides response space for whole effluent toxicity sample. Copy the table to report additional test results.			
	Test Number: 16 of 28	Test Number: 17 of 28	Test Number: 18 of 28
<b>Acute Test Results Continued</b>			
Other (describe)			
<b>Chronic Test Results</b>			
NOEC	100	25	56.5
IC <sub>25</sub>	>100	17.9	60.4
Control percent survival	95	100	NA
Other (describe)	Growth = 0.858 mg/organism	Reproduction = 23.1 young per adult	Cell Density = 2.090 x 10 <sup>6</sup> cells/ml at termination
<b>Quality Control/Quality Assurance</b>			
Is reference toxicant data available?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Was reference toxicant test within acceptable bounds?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
What date was reference toxicant test run (MM/DD/YYYY)?	1/17/2018	4/10/2018	8/17/2018
Other (describe)			

EPA Identification Number	NPDES Permit Number	Facility Name	Outfall Number
	WA-0093317	Spokane County Regional Water Reclamation Facility	Outfall #001

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**TABLE E. EFFLUENT MONITORING FOR WHOLE EFFLUENT TOXICITY**

The table provides response space for whole effluent toxicity sample. Copy the table to report additional test results.

**Test Information**

	Test Number: 19 of 28	Test Number: 20 of 28	Test Number: 21 of 28
Test Species	Pimephales promelas	Ceriodaphnia dubia	Raphidocelis subcapitata (aka Selenastrum)
Age at initiation of test	<48 hrs, all within an 24 hour age range	<24 hrs, all within an 8 hour age range	Acclimated to test conditions for 4-7 days
Outfall number	Outfall #001	Outfall #001	Outfall #001
Date sample collected	10/08/18, 10/10/18, 10/12/18	02/04/19, 02/06/19, 02/08/19	4/10/2019
Date test started	10/9/2018	2/5/2019	4/11/2019
Duration	7 days	7 days	96 hours

**Toxicity Test Methods**

Test method number	EPA Method 1000.0	EPA Method 1002.0	EPA Method 1003.0
Manual title	Short-Term Methods for Estimating the Chronic	Short-Term Methods for Estimating the Chronic	Short-Term Methods for Estimating the Chronic
Edition number and year of publication	4th Edition, 2002, EPA 821-R-02-013	4th Edition, 2002, EPA 821-R-02-013	4th Edition, 2002, EPA 821-R-02-013
Page number(s)	53 - 111	141 - 196	197 - 230

**Sample Type**

Check one:	<input type="checkbox"/> Grab <input checked="" type="checkbox"/> 24-hour composite	<input type="checkbox"/> Grab <input checked="" type="checkbox"/> 24-hour composite	<input type="checkbox"/> Grab <input checked="" type="checkbox"/> 24-hour composite
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**Sample Location**

Check One:	<input type="checkbox"/> Before Disinfection <input type="checkbox"/> After Disinfection <input checked="" type="checkbox"/> After Dechlorination	<input type="checkbox"/> Before Disinfection <input type="checkbox"/> After Disinfection <input checked="" type="checkbox"/> After Dechlorination	<input type="checkbox"/> Before Disinfection <input type="checkbox"/> After Disinfection <input checked="" type="checkbox"/> After Dechlorination
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**Point in Treatment Process**

Describe the point in the treatment process at which the sample was collected for each test.	In the effluent discharge pipe, on the way to Outfall #001 post all treatment processes.	In the effluent discharge pipe, on the way to Outfall #001 post all treatment processes.	In the effluent discharge pipe, on the way to Outfall #001 post all treatment processes.
--	--	--	--

**Toxicity Type**

Indicate for each test whether the test was performed to assess acute or chronic toxicity, or both. (Check one response.)	<input type="checkbox"/> Acute <input checked="" type="checkbox"/> Chronic <input type="checkbox"/> Both	<input type="checkbox"/> Acute <input checked="" type="checkbox"/> Chronic <input type="checkbox"/> Both	<input type="checkbox"/> Acute <input checked="" type="checkbox"/> Chronic <input type="checkbox"/> Both
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EPA Identification Number	NPDES Permit Number	Facility Name	Outfall Number
	WA-0093317	Spokane County Regional Water Reclamation Facility	Outfall #001

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# TABLE E. EFFLUENT MONITORING FOR WHOLE EFFLUENT TOXICITY

The table provides response space for whole effluent toxicity sample. Copy the table to report additional test results.

	Test Number: 19 of 28	Test Number: 20 of 28	Test Number: 21 of 28
<b>Test Type</b>			
Indicate the type of test performed. (Check one response.)	<input type="checkbox"/> Static <input checked="" type="checkbox"/> Static-renewal <input type="checkbox"/> Flow-through	<input type="checkbox"/> Static <input checked="" type="checkbox"/> Static-renewal <input type="checkbox"/> Flow-through	<input checked="" type="checkbox"/> Static <input type="checkbox"/> Static-renewal <input type="checkbox"/> Flow-through
<b>Source of Dilution Water</b>			
Indicate the source of dilution water. (Check one response.)	<input checked="" type="checkbox"/> Laboratory water <input type="checkbox"/> Receiving water	<input checked="" type="checkbox"/> Laboratory water <input type="checkbox"/> Receiving water	<input checked="" type="checkbox"/> Laboratory water <input type="checkbox"/> Receiving water
If laboratory water, specify type.	Reconstituted moderately hard	Reconstituted moderately hard	Reconstituted moderately hard
If receiving water, specify source			
<b>Type of Dilution Water</b>			
Indicate the type of dilution water. If salt water specify "natural" or type of artificail sea salts or brine used.	<input checked="" type="checkbox"/> Fresh water <input type="checkbox"/> Salt water (specify)	<input checked="" type="checkbox"/> Fresh water <input type="checkbox"/> Salt water (specify)	<input checked="" type="checkbox"/> Fresh water <input type="checkbox"/> Salt water (specify)
<b>Percentage Effluent Used</b>			
Specify the percentage effluent used for all concetrations in the test series.	6.25, 8.4, 25.0, 56.5, and 100	6.25, 8.4, 25.0, 56.5, and 100	6.25, 8.4, 25.0, 56.5, and 100
<b>Parameters Tested</b>			
Check the parameters tested.	<input checked="" type="checkbox"/> pH <input type="checkbox"/> Salinity <input checked="" type="checkbox"/> Temperature	<input checked="" type="checkbox"/> Ammonia <input checked="" type="checkbox"/> Dissolved oxygen	<input checked="" type="checkbox"/> pH <input type="checkbox"/> Salinity <input checked="" type="checkbox"/> Temperature
		<input checked="" type="checkbox"/> Ammonia <input checked="" type="checkbox"/> Dissolved oxygen	<input checked="" type="checkbox"/> Ammonia <input checked="" type="checkbox"/> Dissolved oxygen
<b>Acute Test Results</b>			
Percent survival in 100% effluent			
LC <sub>50</sub>			
95% confidence interval			
Control percent survival			

EPA Identification Number	NPDES Permit Number	Facility Name	Outfall Number
	WA-0093317	Spokane County Regional Water Reclamation Facility	Outfall #001

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# TABLE E. EFFLUENT MONITORING FOR WHOLE EFFLUENT TOXICITY

The table provides response space for whole effluent toxicity sample. Copy the table to report additional test results.

	Test Number: 19 of 28	Test Number: 20 of 28	Test Number: 21 of 28
<b>Acute Test Results Continued</b>			
Other (describe)			
<b>Chronic Test Results</b>			
NOEC	100	100	6.25
IC <sub>25</sub>	>100	>100	10.4
Control percent survival	97.5	88.9	NA
Other (describe)	Growth = 0.627 mg/organism	Reproduction = 24.7 young per adult	Cell Density = 3.683 x 10 <sup>6</sup> cells/ml at termination
<b>Quality Control/Quality Assurance</b>			
Is reference toxicant data available?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Was reference toxicant test within acceptable bounds?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
What date was reference toxicant test run (MM/DD/YYYY)?	10/4/2018	2/8/2019	4/11/2019
Other (describe)			This test showed a statistically significant difference between the control and the CCEC. Retesting required.

EPA Identification Number	NPDES Permit Number	Facility Name	Outfall Number
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**TABLE E. EFFLUENT MONITORING FOR WHOLE EFFLUENT TOXICITY**

The table provides response space for whole effluent toxicity sample. Copy the table to report additional test results.

**Test Information**

	Test Number: 22 of 28	Test Number: 23 of 28	Test Number: 24 of 28
Test Species	Raphidocelis subcapitata (aka Selenastrum)	Pimephales promelas	Raphidocelis subcapitata (aka Selenastrum)
Age at initiation of test	Acclimated to test conditions for 4-7 days	<48 hrs, all within an 24 hour age range	Acclimated to test conditions for 4-7 days
Outfall number	Outfall #001	Outfall #001	Outfall #001
Date sample collected	5/7/2019	07/08/19, 07/10/19, 07/12/19	8/7/2019
Date test started	5/8/2019	7/9/2019	8/8/2019
Duration	96 hours	7 days	96 hours

**Toxicity Test Methods**

Test method number	EPA Method 1003.0	EPA Method 1000.0	EPA Method 1003.0
Manual title	Short-Term Methods for Estimating the Chronic	Short-Term Methods for Estimating the Chronic	Short-Term Methods for Estimating the Chronic
Edition number and year of publication	4th Edition, 2002, EPA 821-R-02-013	4th Edition, 2002, EPA 821-R-02-013	4th Edition, 2002, EPA 821-R-02-013
Page number(s)	197 - 230	53 - 111	197 - 230

**Sample Type**

Check one:	<input type="checkbox"/> Grab <input checked="" type="checkbox"/> 24-hour composite	<input type="checkbox"/> Grab <input checked="" type="checkbox"/> 24-hour composite	<input type="checkbox"/> Grab <input checked="" type="checkbox"/> 24-hour composite
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**Sample Location**

Check One:	<input type="checkbox"/> Before Disinfection <input type="checkbox"/> After Disinfection <input checked="" type="checkbox"/> After Dechlorination	<input type="checkbox"/> Before Disinfection <input type="checkbox"/> After Disinfection <input checked="" type="checkbox"/> After Dechlorination	<input type="checkbox"/> Before Disinfection <input type="checkbox"/> After Disinfection <input checked="" type="checkbox"/> After Dechlorination
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**Point in Treatment Process**

Describe the point in the treatment process at which the sample was collected for each test.	In the effluent discharge pipe, on the way to Outfall #001 post all treatment processes.	In the effluent discharge pipe, on the way to Outfall #001 post all treatment processes.	In the effluent discharge pipe, on the way to Outfall #001 post all treatment processes.
--	--	--	--

**Toxicity Type**

Indicate for each test whether the test was performed to assess acute or chronic toxicity, or both. (Check one response.)	<input type="checkbox"/> Acute <input checked="" type="checkbox"/> Chronic <input type="checkbox"/> Both	<input type="checkbox"/> Acute <input checked="" type="checkbox"/> Chronic <input type="checkbox"/> Both	<input type="checkbox"/> Acute <input checked="" type="checkbox"/> Chronic <input type="checkbox"/> Both
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EPA Identification Number	NPDES Permit Number	Facility Name	Outfall Number
	WA-0093317	Spokane County Regional Water Reclamation Facility	Outfall #001

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# TABLE E. EFFLUENT MONITORING FOR WHOLE EFFLUENT TOXICITY

The table provides response space for whole effluent toxicity sample. Copy the table to report additional test results.

	Test Number: 22 of 28	Test Number: 23 of 28	Test Number: 24 of 28
<b>Test Type</b>			
Indicate the type of test performed. (Check one response.)	<input checked="" type="checkbox"/> Static <input type="checkbox"/> Static-renewal <input type="checkbox"/> Flow-through	<input type="checkbox"/> Static <input checked="" type="checkbox"/> Static-renewal <input type="checkbox"/> Flow-through	<input checked="" type="checkbox"/> Static <input type="checkbox"/> Static-renewal <input type="checkbox"/> Flow-through
<b>Source of Dilution Water</b>			
Indicate the source of dilution water. (Check one response.)	<input checked="" type="checkbox"/> Laboratory water <input type="checkbox"/> Receiving water	<input checked="" type="checkbox"/> Laboratory water <input type="checkbox"/> Receiving water	<input checked="" type="checkbox"/> Laboratory water <input type="checkbox"/> Receiving water
If laboratory water, specify type.	Reconstituted moderately hard	Reconstituted moderately hard	Reconstituted moderately hard
If receiving water, specify source			
<b>Type of Dilution Water</b>			
Indicate the type of dilution water. If salt water specify "natural" or type of artificial sea salts or brine used.	<input checked="" type="checkbox"/> Fresh water <input type="checkbox"/> Salt water (specify)	<input checked="" type="checkbox"/> Fresh water <input type="checkbox"/> Salt water (specify)	<input checked="" type="checkbox"/> Fresh water <input type="checkbox"/> Salt water (specify)
<b>Percentage Effluent Used</b>			
Specify the percentage effluent used for all concentrations in the test series.	6.25, 8.4, 25.0, 56.5, and 100	6.25, 8.4, 25.0, 56.5, and 100	6.25, 8.4, 25.0, 56.5, and 100
<b>Parameters Tested</b>			
Check the parameters tested.	<input checked="" type="checkbox"/> pH <input type="checkbox"/> Salinity <input checked="" type="checkbox"/> Temperature	<input checked="" type="checkbox"/> pH <input type="checkbox"/> Salinity <input checked="" type="checkbox"/> Temperature	<input checked="" type="checkbox"/> pH <input type="checkbox"/> Salinity <input checked="" type="checkbox"/> Temperature
	<input checked="" type="checkbox"/> Ammonia <input checked="" type="checkbox"/> Dissolved oxygen	<input checked="" type="checkbox"/> Ammonia <input checked="" type="checkbox"/> Dissolved oxygen	<input checked="" type="checkbox"/> Ammonia <input checked="" type="checkbox"/> Dissolved oxygen
<b>Acute Test Results</b>			
Percent survival in 100% effluent			
LC <sub>50</sub>			
95% confidence interval			
Control percent survival			

EPA Identification Number	NPDES Permit Number	Facility Name	Outfall Number
	WA-0093317	Spokane County Regional Water Reclamation Facility	Outfall #001

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TABLE E. EFFLUENT MONITORING FOR WHOLE EFFLUENT TOXICITY			
The table provides response space for whole effluent toxicity sample. Copy the table to report additional test results.			
	Test Number: 22 of 28	Test Number: 23 of 28	Test Number: 24 of 28
<b>Acute Test Results Continued</b>			
Other (describe)			
<b>Chronic Test Results</b>			
NOEC	<6.25	100	8.4
IC <sub>25</sub>	<6.25	>100	57.1
Control percent survival	NA	97.5	NA
Other (describe)	Cell Density = 4.156 x 10 <sup>6</sup> cells/ml at termination	Growth = 0.665 mg/organism	Cell Density = 4.608 x 10 <sup>6</sup> cells/ml at termination
<b>Quality Control/Quality Assurance</b>			
Is reference toxicant data available?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Was reference toxicant test within acceptable bounds?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
What date was reference toxicant test run (MM/DD/YYYY)?	5/8/2019	7/9/2019	8/8/2019
Other (describe)	This test showed a statistically significant difference between the control and the CCEC. This test triggered the creation of a TI/RE plan.		First accelerated test under the TI/RE plan.

EPA Identification Number	NPDES Permit Number	Facility Name	Outfall Number
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# TABLE E. EFFLUENT MONITORING FOR WHOLE EFFLUENT TOXICITY

The table provides response space for whole effluent toxicity sample. Copy the table to report additional test results.

## Test Information

	Test Number: 25 of 28	Test Number: 26 of 28	Test Number: 27 of 28
Test Species	Raphidocelis subcapitata (aka Selenastrum	Ceriodaphnia dubia	Raphidocelis subcapitata (aka Selenastrum
Age at initiation of test	Acclimated to test conditions for 4-7 days	<24 hrs, all within an 8 hour age range	Acclimated to test conditions for 4-7 days
Outfall number	Outfall #001	Outfall #001	Outfall #001
Date sample collected	9/10/2019	10/07/19, 10/09/19, 10/11/19	11/18/2019
Date test started	9/11/2019	10/8/2019	11/19/2019
Duration	96 hours	7 days	96 hours

## Toxicity Test Methods

	EPA Method 1003.0	EPA Method 1002.0	EPA Method 1003.0
Test method number			
Manual title	Short-Term Methods for Estimating the Chronic	Short-Term Methods for Estimating the Chronic	Short-Term Methods for Estimating the Chronic
Edition number and year of publication	4th Edition, 2002, EPA 821-R-02-013	4th Edition, 2002, EPA 821-R-02-013	4th Edition, 2002, EPA 821-R-02-013
Page number(s)	197 - 230	141 - 196	197 - 230

## Sample Type

Check one:	<input type="checkbox"/> Grab <input checked="" type="checkbox"/> 24-hour composite	<input type="checkbox"/> Grab <input checked="" type="checkbox"/> 24-hour composite	<input type="checkbox"/> Grab <input checked="" type="checkbox"/> 24-hour composite
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## Sample Location

Check One:	<input type="checkbox"/> Before Disinfection <input type="checkbox"/> After Disinfection <input checked="" type="checkbox"/> After Dechlorination	<input type="checkbox"/> Before Disinfection <input type="checkbox"/> After Disinfection <input checked="" type="checkbox"/> After Dechlorination	<input type="checkbox"/> Before Disinfection <input type="checkbox"/> After Disinfection <input checked="" type="checkbox"/> After Dechlorination
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## Point in Treatment Process

Describe the point in the treatment process at which the sample was collected for each test.	In the effluent discharge pipe, on the way to Outfall #001 post all treatment processes.	In the effluent discharge pipe, on the way to Outfall #001 post all treatment processes.	In the effluent discharge pipe, on the way to Outfall #001 post all treatment processes.
--	--	--	--

## Toxicity Type

Indicate for each test whether the test was performed to assess acute or chronic toxicity, or both. (Check one response.)	<input type="checkbox"/> Acute <input checked="" type="checkbox"/> Chronic <input type="checkbox"/> Both	<input type="checkbox"/> Acute <input checked="" type="checkbox"/> Chronic <input type="checkbox"/> Both	<input type="checkbox"/> Acute <input checked="" type="checkbox"/> Chronic <input type="checkbox"/> Both
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EPA Identification Number	NPDES Permit Number	Facility Name	Outfall Number
	WA-0093317	Spokane County Regional Water Reclamation Facility	Outfall #001

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# TABLE E. EFFLUENT MONITORING FOR WHOLE EFFLUENT TOXICITY

The table provides response space for whole effluent toxicity sample. Copy the table to report additional test results.

	Test Number: 25 of 28	Test Number: 26 of 28	Test Number: 27 of 28
<b>Test Type</b>			
Indicate the type of test performed. (Check one response.)	<input checked="" type="checkbox"/> Static <input type="checkbox"/> Static-renewal <input type="checkbox"/> Flow-through	<input type="checkbox"/> Static <input checked="" type="checkbox"/> Static-renewal <input type="checkbox"/> Flow-through	<input checked="" type="checkbox"/> Static <input type="checkbox"/> Static-renewal <input type="checkbox"/> Flow-through
<b>Source of Dilution Water</b>			
Indicate the source of dilution water. (Check one response.)	<input checked="" type="checkbox"/> Laboratory water <input type="checkbox"/> Receiving water	<input checked="" type="checkbox"/> Laboratory water <input type="checkbox"/> Receiving water	<input checked="" type="checkbox"/> Laboratory water <input type="checkbox"/> Receiving water
If laboratory water, specify type.	Reconstituted moderately hard	Reconstituted moderately hard	Reconstituted moderately hard
If receiving water, specify source			
<b>Type of Dilution Water</b>			
Indicate the type of dilution water. If salt water specify "natural" or type of artificail sea salts or brine used.	<input checked="" type="checkbox"/> Fresh water <input type="checkbox"/> Salt water (specify)	<input checked="" type="checkbox"/> Fresh water <input type="checkbox"/> Salt water (specify)	<input checked="" type="checkbox"/> Fresh water <input type="checkbox"/> Salt water (specify)
<b>Percentage Effluent Used</b>			
Specify the percentage effluent used for all concentrations in the test series.	6.25, 8.4, 25.0, 56.5, and 100	6.25, 8.4, 25.0, 56.5, and 100	6.25, 8.4, 25.0, 56.5, and 100
<b>Parameters Tested</b>			
Check the parameters tested.	<input checked="" type="checkbox"/> pH <input type="checkbox"/> Salinity <input checked="" type="checkbox"/> Temperature	<input checked="" type="checkbox"/> pH <input type="checkbox"/> Salinity <input checked="" type="checkbox"/> Temperature	<input checked="" type="checkbox"/> pH <input type="checkbox"/> Salinity <input checked="" type="checkbox"/> Temperature
	<input checked="" type="checkbox"/> Ammonia <input checked="" type="checkbox"/> Dissolved oxygen	<input checked="" type="checkbox"/> Ammonia <input checked="" type="checkbox"/> Dissolved oxygen	<input checked="" type="checkbox"/> Ammonia <input checked="" type="checkbox"/> Dissolved oxygen
<b>Acute Test Results</b>			
Percent survival in 100% effluent			
LC <sub>50</sub>			
95% confidence interval			
Control percent survival			

EPA Identification Number	NPDES Permit Number	Facility Name	Outfall Number
	WA-0093317	Spokane County Regional Water Reclamation Facility	Outfall #001

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# TABLE E. EFFLUENT MONITORING FOR WHOLE EFFLUENT TOXICITY

The table provides response space for whole effluent toxicity sample. Copy the table to report additional test results.

	Test Number: 25 of 28	Test Number: 26 of 28	Test Number: 27 of 28
<b>Acute Test Results Continued</b>			
Other (describe)			
<b>Chronic Test Results</b>			
NOEC	8.4	100	25
IC <sub>25</sub>	51.5	57.1	>100
Control percent survival	NA	90	NA
Other (describe)	Cell Density = 4.197 x 10 <sup>6</sup> cells/ml at termination	Reproduction = 29.7 young per adult	Cell Density = 3.053 x 10 <sup>6</sup> cells/ml at termination
<b>Quality Control/Quality Assurance</b>			
Is reference toxicant data available?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Was reference toxicant test within acceptable bounds?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
What date was reference toxicant test run (MM/DD/YYYY)?	9/11/2019	10/1/2019	11/19/2019
Other (describe)	Second accelerated test under the TI/RE plan.		Third accelerated test under the TI/RE plan.

EPA Identification Number	NPDES Permit Number	Facility Name	Outfall Number
	WA-0093317	Spokane County Regional Water Reclamation Facility	Outfall #001

Form Approved 03/05/19  
OMB No. 2040-004

# TABLE E. EFFLUENT MONITORING FOR WHOLE EFFLUENT TOXICITY

The table provides response space for whole effluent toxicity sample. Copy the table to report additional test results.

Test Information			
	Test Number: 28 of 28	Test Number ____	Test Number ____
Test Species	Raphidocelis subcapitata (aka Selenastrum		
Age at initiation of test	Acclimated to test conditions for 4-7 days		
Outfall number	Outfall #001		
Date sample collected	1/7/2020		
Date test started	1/8/2020		
Duration	96 hours		
Toxicity Test Methods			
Test method number	EPA Method 1003.0		
Manual title	Short-Term Methods for Estimating the Chronic		
Edition number and year of publication	4th Edition, 2002, EPA 821-R-02-013		
Page number(s)	197 - 230		
Sample Type			
Check one:	<input type="checkbox"/> Grab <input checked="" type="checkbox"/> 24-hour composite	<input type="checkbox"/> Grab <input type="checkbox"/> 24-hour composite	<input type="checkbox"/> Grab <input type="checkbox"/> 24-hour composite
Sample Location			
Check One:	<input type="checkbox"/> Before Disinfection <input type="checkbox"/> After Disinfection <input checked="" type="checkbox"/> After Dechlorination	<input type="checkbox"/> Before Disinfection <input type="checkbox"/> After Disinfection <input type="checkbox"/> After Dechlorination	<input type="checkbox"/> Before Disinfection <input type="checkbox"/> After Disinfection <input type="checkbox"/> After Dechlorination
Point in Treatment Process			
Describe the point in the treatment process at which the sample was collected for each test.	In the effluent discharge pipe, on the way to Outfall #001 post all treatment processes.		
Toxicity Type			
Indicate for each test whether the test was performed to assess acute or chronic toxicity, or both. (Check one response.)	<input type="checkbox"/> Acute <input checked="" type="checkbox"/> Chronic <input type="checkbox"/> Both	<input type="checkbox"/> Acute <input type="checkbox"/> Chronic <input type="checkbox"/> Both	<input type="checkbox"/> Acute <input type="checkbox"/> Chronic <input type="checkbox"/> Both

EPA Identification Number	NPDES Permit Number	Facility Name	Outfall Number
	WA-0093317	Spokane County Regional Water Reclamation Facility	Outfall #001

Form Approved 03/05/19  
OMB No. 2040-004

# TABLE E. EFFLUENT MONITORING FOR WHOLE EFFLUENT TOXICITY

The table provides response space for whole effluent toxicity sample. Copy the table to report additional test results.

	Test Number: 28 of 28	Test Number ____	Test Number ____
<b>Test Type</b>			
Indicate the type of test performed. (Check one response.)	<input checked="" type="checkbox"/> Static <input type="checkbox"/> Static-renewal <input type="checkbox"/> Flow-through	<input type="checkbox"/> Static <input type="checkbox"/> Static-renewal <input type="checkbox"/> Flow-through	<input type="checkbox"/> Static <input type="checkbox"/> Static-renewal <input type="checkbox"/> Flow-through
<b>Source of Dilution Water</b>			
Indicate the source of dilution water. (Check one response.)	<input checked="" type="checkbox"/> Laboratory water <input type="checkbox"/> Receiving water	<input type="checkbox"/> Laboratory water <input type="checkbox"/> Receiving water	<input type="checkbox"/> Laboratory water <input type="checkbox"/> Receiving water
If laboratory water, specify type.	Reconstituted moderately hard		
If receiving water, specify source			
<b>Type of Dilution Water</b>			
Indicate the type of dilution water. If salt water specify "natural" or type of artificail sea salts or	<input checked="" type="checkbox"/> Fresh water <input type="checkbox"/> Salt water (specify)	<input type="checkbox"/> Fresh water <input type="checkbox"/> Salt water (specify)	<input type="checkbox"/> Fresh water <input type="checkbox"/> Salt water (specify)
<b>Percentage Effluent Used</b>			
Specify the percentage effluent used for all	6.25, 8.4, 25.0, 56.5, and 100		
<b>Parameters Tested</b>			
Check the parameters tested.	<input checked="" type="checkbox"/> pH <input type="checkbox"/> Salinity <input checked="" type="checkbox"/> Temperature	<input checked="" type="checkbox"/> Ammonia <input checked="" type="checkbox"/> Dissolved oxygen	<input type="checkbox"/> pH <input type="checkbox"/> Salinity <input type="checkbox"/> Temperature
		<input type="checkbox"/> Ammonia <input type="checkbox"/> Dissolved oxygen	<input type="checkbox"/> Ammonia <input type="checkbox"/> Dissolved oxygen
<b>Acute Test Results</b>			
Percent survival in 100% effluent			
LC <sub>50</sub>			
95% confidence interval			
Control percent survival			

EPA Identification Number	NPDES Permit Number	Facility Name	Outfall Number
	WA-0093317	Spokane County Regional Water Reclamation Facility	Outfall #001

Form Approved 03/05/19  
OMB No. 2040-004

# TABLE E. EFFLUENT MONITORING FOR WHOLE EFFLUENT TOXICITY

The table provides response space for whole effluent toxicity sample. Copy the table to report additional test results.

	Test Number: 28 of 28	Test Number ____	Test Number ____
<b>Acute Test Results Continued</b>			
Other (describe)			
<b>Chronic Test Results</b>			
NOEC	8.4		
IC <sub>25</sub>	17.6		
Control percent survival	NA		
Other (describe)	Cell Density = 3.379 x 10 <sup>6</sup> cells/ml at termination		
<b>Quality Control/Quality Assurance</b>			
Is reference toxicant data available?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No
Was reference toxicant test within acceptable bounds?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No
What date was reference toxicant test run (MM/DD/YYYY)?	1/8/2020		
Other (describe)	Fourth accelerated test under the TI/RE plan and 1st quarter routine sample for 2020. The TI/RE plan was interrupted on 2/19/2020.		



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EPA Identification Number	NPDES Permit Number	Facility Name
	WA-0093317	Spokane County Regional Water Reclamation Facility

Form Approved 03/05/19

OMB No. 2040-0004

**TABLE F. INDUSTRIAL DISCHARGE INFORMATION**

Response space is provided for three SIUs. Copy the table to report information for additional SIUs.

	SIU 1	SIU 2	SIU 3
Name of SIU	Galaxy Compound Semiconductors Inc.	American On-Site Services	Honeywell Electronic Materials, LLC.
Mailing address (street or P.O. box)	9922 E Montgomery Ave, Suites 6,7,& 8	3808 N. Sullivan Rd. Bldg. 107	15128 E. Euclid Ave.
City, state, and ZIP code	Spokane Valley, WA 99206	Spokane valley, WA 99216	Spokane Valley, WA 99216
Description of all industrial processes that affect or contribute to the discharge.	Electric and electronic components manufacturing and metal finishing	Portable chemical toilet service	Aluminum forming, electroplating, inorganic chemicals, metal finishing, nonferrous metals forming and metal powders, nonferrous metals
List the principal products and raw materials that affect or contribute to the SIU's discharge.	Galium antimonide and indium antimonide semiconductor wafers  Galium, indium, antimony	None  General Cleaning Supplies	High purity metals production, discrete products (fine wire, soft solder parts, spheres, slugs), plated parts (semiconductor sealing lids, heat spreaders) Sb, Al, Cu, Ta, In, Ti, W, Pb, Sn, Au, Bi, Cd, Te, B <sub>2</sub> O <sub>3</sub> , Ge, Hexane, heptane, isopropanol, acids, NaOH, CaCl, CuSO <sub>4</sub> , H <sub>2</sub> O <sub>2</sub>
Indicate the average daily volume of wastewater discharged by the SIU.	2932 gpd	3393 gpd	72,434 gpd
How much of the average daily volume is attributable to process flow?	432 gpd	2793 gpd	7,201 gpd
How much of the average daily volume is attributable to non-process flow?	2500 gpd	600 gpd	65,265 gpd
Is the SIU subject to local limits?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Is the SIU subject to categorical standards?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

EPA Identification Number	NPDES Permit Number	Facility Name
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**TABLE F. INDUSTRIAL DISCHARGE INFORMATION**

Response space is provided for three SIUs. Copy the table to report information for additional SIUs.

	SIU 1	SIU 2	SIU 3
Under what categories and subcategories is the SIU subject?	40 CFR 433 - Metal Finishing; 40 CFR 469	NA	40 CFR 433.17; 421.265(c),(d),(e), and (h) Secondary Recovery of Precious Metals; 40 CFR 437 (a) and (d), Aluminum Forming; 40 CFR 471.44 (k),(p) and (q), Precious Metals Forming
Has the POTW experienced problems (e.g., upsets, pass-through interferences) in the past 4.5 years that are attributable to the SIU?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
If yes, describe.			

EPA Identification Number	NPDES Permit Number	Facility Name
	WA-0093317	Spokane County Regional Water Reclamation Facility

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**TABLE F. INDUSTRIAL DISCHARGE INFORMATION**

Response space is provided for three SIUs. Copy the table to report information for additional SIUs.

	SIU 4	SIU 5	SIU 6
Name of SIU	Kemira Water Solutions, Inc.	Lloyd Industries, LLC	Novation, Inc.
Mailing address (street or P.O. box)	2315 N. Sullivan Rd.	3808 N. Sullivan Rd. Bldg. 25E	N. 2616 Locust Road
City, state, and ZIP code	Spokane Valley, WA 99216	Spokane Valley, WA 99216	Spokane Valley, WA 99206
Description of all industrial processes that affect or contribute to the discharge.	Manufacturing of water treatment chemical products	Aluminum forming and metal finishing	Electroplating, Metals Finishing
List the principal products and raw materials that affect or contribute to the SIU's discharge.	Aluminum sulfate, polyaluminum chloride (PACl)  Sulfuric acid, aluminum hydrate, aluminum, hydrochloric acid	Pizza pans, bake ware, cook ware  Aluminum, stainless steel, carbon steel, aluminized steel	Coating and anodizing on parts owned by customers Acids (sulfuric, hydrochloric, hydrofluoric, phosphoric, boric, nitric), zinc chloride, nickel acetate seal, chromates, alkaline zinc, proprietary caustic cleaners, "De-Ox", colored, black and gold dyes
Indicate the average daily volume of wastewater discharged by the SIU.	17,365 gpd	4,545 gpd	5,014 gpd
How much of the average daily volume is attributable to process flow?	13,925 gpd	4,215 gpd	4,414 gpd
How much of the average daily volume is attributable to non-process flow?	3,440 gpd	330 gpd	600 gpd
Is the SIU subject to local limits?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Is the SIU subject to categorical standards?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

EPA Identification Number	NPDES Permit Number	Facility Name
	WA-0093317	Spokane County Regional Water Reclamation Facility

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**TABLE F. INDUSTRIAL DISCHARGE INFORMATION**

Response space is provided for three SIUs. Copy the table to report information for additional SIUs.

	SIU 4	SIU 5	SIU 6
Under what categories and subcategories is the SIU subject?	40 CFR 415; Inorganic chemicals manufacturing	40 DFR 467: Aluminum forming; 40 CFR 433: Metal finishing	40 CFR 433: Metal Finishing; 40 CFR 413: Electroplating
Has the POTW experienced problems (e.g., upsets, pass-through interferences) in the past 4.5 years that are attributable to the SIU?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
If yes, describe.	Industry discharged high inert TSS flow to the POTW causing interference with the solids handling processes. The industry was required to settle out solids prior to discharge in order to comply with the discharge standards of the County ordinance.		

EPA Identification Number	NPDES Permit Number	Facility Name
	WA-0093317	Spokane County Regional Water Reclamation Facility

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**TABLE F. INDUSTRIAL DISCHARGE INFORMATION**

Response space is provided for three SIUs. Copy the table to report information for additional SIUs.

	SIU 7	SIU 8	SIU
Name of SIU	Spokane County Utilities - Mica Landfill	U.S. Wax & Polymer Inc.	
Mailing address (street or P.O. box)	1026 W. Broadway	17625 E. Euclid Ave.	
City, state, and ZIP code	Spokane, WA 99207	Spokane Valley, WA 99216	
Description of all industrial processes that affect or contribute to the discharge.	Landfill - leachate	Aluminum anodizing, tumbling, polishing, and hexavalent chrome conversion	
List the principal products and raw materials that affect or contribute to the SIU's discharge.	NA NA	Various parts owned by customers Aluminum, sulfuric acid, nitric acid, phosphoric acid, dyes	
Indicate the average daily volume of wastewater discharged by the SIU.	15,501 gpd	2,180 gpd	
How much of the average daily volume is attributable to process flow?	15,501 gpd	1,880 gpd	
How much of the average daily volume is attributable to non-process flow?	0 gpd	300 gpd	
Is the SIU subject to local limits?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No
Is the SIU subject to categorical standards?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No

EPA Identification Number	NPDES Permit Number	Facility Name
	WA-0093317	Spokane County Regional Water Reclamation Facility

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TABLE F. INDUSTRIAL DISCHARGE INFORMATION			
Response space is provided for three SIUs. Copy the table to report information for additional SIUs.			
	SIU 7	SIU 8	SIU
Under what categories and subcategories is the SIU subject?	NA	40 CFR 433: Metal Finishing	
Has the POTW experienced problems (e.g., upsets, pass-through interferences) in the past 4.5 years that are attributable to the SIU?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No
If yes, describe.			

## Attachment B

### Request Modifications for Monitoring Requirements and Receiving Water Studies

This Attachment B is submitted as part of the Spokane County Regional Water Reclamation Facility (SCRWRF) NPDES Permit renewal application. Spokane County requests that the re-issued NPDES Permit make modifications to the following monitoring requirements (Section S2) and receiving water study (Section S9) items:

- Remove the monitoring requirement for 2,3,7,8-Tetra-Chlorodibenzo-P-Dioxin (2,3,7,8, TCDDs, or dioxin) in both the influent and effluent [Table S2.A (1) and (2)];
- For the PCB and PBDE monitoring requirements:
  - Allow sampling to continue in each influent trunk line [Table S2.A (1)];
  - Correct the units for PCB and PBDE concentrations to picograms per liter (pg/L) rather than nanograms per liter (ng/L) [Table S2.A (1) and (2)]; and
  - Correct the analytical methodology for PBDEs to EPA Method 1614 and modify the reporting or quantitation limit of 5 pg/L per congener [Table S2.A Footnote 17)].
- Delete the additional reporting requirement for nutrients listed in the Spokane River and Lake Spokane Dissolved Oxygen (DO) Total Maximum Daily Load (TMDL) [Table S2.A Footnote 18];
- Remove the requirement for the Temperature Monitoring Receiving Water Study in Section S9.A;
- Remove the requirement for the Conventional Parameters Receiving Water Study in Section S9.B.

The rationale for each of these requests is presented in this attachment.

#### Monitoring Requirement for Dioxin

Under the SCRWRF existing NPDES Permit, the County is required to sample for dioxin in both influent trunk lines on a bi-monthly (6/year) basis and the final wastewater effluent on a quarterly basis. Spokane County is requesting that this monitoring requirement be removed in the re-issued NPDES Permit. Since sampling began in October 2012, only 5 of the 94 influent samples contained dioxin at levels above the laboratory quantification criteria and dioxin has never been detected in the effluent. The detected dioxin levels in the influent samples are typically very close to the detection limits (Table 1).

Table 1. Summary of dioxin concentrations (in pg/L) measured in influent trunk line (NVIPS and SVIPS) and effluent samples from October 2012 to June 2020.			
Statistics	NVIPS	SVIPS	Effluent
Total number of samples	47	47	31
Number of detected sample(s)	3	2	0
Concentrations detected	0.52, 1.03, 0.66	0.78, 1.87	--
Range of detection limits	0.498–1.080	0.496–0.910	0.497–0.663

Ecology has eliminated the dioxin monitoring criteria for another Spokane River municipal discharger following a demonstration that samples show nondetectable levels of the toxics. In a modification to the



Liberty Lake Sewer and Water District's Wastewater Treatment Plant NPDES Permit #WA0045144 issued October 30, 2013, Ecology reduced dioxin and furan sampling from 4/year to 2/year for 2014 as previous testing results have shown that dioxin and furan concentrations are negligible in the District's influent and effluent. Further, the permit modification included a statement that future dioxin and furan testing may be eliminated if an evaluation of the 2014 data shows nondetectable levels of the toxics. Upon review of the District's 2014 data, Ecology concluded that the dioxin and furan monitoring requirement could be eliminated in a July 15, 2015 letter to Liberty Lake Sewer and Water District. Dioxin and furan monitoring had only been a permit requirement for the Liberty Lake Sewer and Water District since the permit effective date of July 1, 2011. Therefore, Ecology's decision to eliminate the dioxin monitoring requirement was based on less than 4 years of data.

Given the modification of the Liberty Lake Sewer and Water District NPDES Permit #WA0045144 and the County's nearly 8 years of data demonstrating there is no detectable amount of dioxin in the SCRWRF effluent, the County is requesting that this monitoring requirement be removed.

### **Monitoring Requirements for PCB and PBDE**

There are several components to the monitoring requirements for PCB and PBDE that the County would like to address.

#### **Table S2.A**

First, under the SCRWRF existing NPDES Permit, the County is required to sample for PCBs and PBDEs in each influent trunk line: the North Valley Interceptor (NVI) and the Spokane Valley Interceptor (SVI). The County requests to continue monitoring these parameters in each influent trunk line rather than combined at the SCRWRF headworks, as was suggested in a recent meeting with Ecology staff. Sampling each influent trunk line separately is an important component of the County's monitoring program because it maintains overall consistency in the monitoring program and allows for initial source tracing. The County's 2020 Annual Toxics Management Report and data from track-down sampling conducted between 2013 and 2016 demonstrate that there are differences in terms of PCB and PBDE composition between the interceptors. For example, PCB-11 is shown to be significantly higher in the NVI versus the SVI. In terms of PBDEs, it has been demonstrated that the NVI has a greater contribution from the deca-BDE formulations and the SVIPS has a greater contribution from the penta-BDE formulations.

Secondly, the existing NPDES permit currently requires reporting PCB and PBDE in nanograms per liter (ng/L). These parameters are more commonly reported in picograms per liter (pg/L). Therefore, the County requests that the re-issued NPDES Permit correct the units to picograms per liter (pg/L) to more accurately reflect how these results are reported.

#### **Table S2.A Footnote 17**

Finally, the existing NPDES permit requires use of EPA Method 1641 for analysis of PBDEs with a reporting or quantitation limit of 5 pg/L per congener. The reference to EPA Method 1641 is in error and the County requests that the re-issued NPDES Permit be corrected to reference EPA Method 1614. In regards to the reporting or quantitation limit, the County requests that the re-issued NPDES Permit require congener-specific reporting limits based on method detection limits identified in the method documentation or by an accredited laboratory.

Documentation for EPA Method 1614A published in 2010 states that “The detection limits in this method are usually dependent on the level of interferences and laboratory backgrounds rather than instrumental limitation” and “The estimated MDL for BDE 99 in water is 5 pg/L with no interferences present.” The current permit requirement may stem from this statement. Method detection limits specified in Method 1614, though, are variable between the homolog groups with a range of 20 – 700 pg/L. SGS Axys Analytical (the laboratory where Spokane County currently sends samples) utilizes sample specific detection limits that typically are between 10 pg/L and 200 pg/L depending on the homolog group.

## Reporting Requirements for nutrients listed in the DO TMDL

### Table S2.A Footnote 18

Under the SCRWRP existing NPDES Permit, the County is required to provide information for the “ten year assessment” monitoring and future compliance projections for the three parameters (CBOD5, NH3 and TP) with waste load allocations (WLAs) established by the Spokane River and Lake Spokane Dissolved Oxygen (DO) Total Maximum Daily Load (TMDL). Spokane County provides CBOD5, NH3, and TP effluent sample results monthly as part of the DMR. The SCRWRP effluent is consistently within the NPDES limits for the three listed parameters, with little capacity for increased discharge. This report is unnecessary to track compliance with the DO TMDL and should be eliminated.

## Receiving Water Study: Water Temperature

### Section S9.A

Under the SCRWRP existing NPDES Permit, the County is required to conduct annual receiving water temperature studies, which includes monitoring the water temperature of the Spokane River up and downstream of the SCRWRP outfall from June through October. The intent of this monitoring is to ensure that the effluent is not contributing to high water temperatures outside of the state’s water quality criteria.

The receiving water study for water temperature was completed annually, as required, and the results were previously reported to Ecology. All eight years of this study indicate the water temperature difference between the upstream and downstream sites is small and not consistently higher or lower at either site.. The difference between the effluent flow (12 cfs) and Spokane River summertime low flows in the vicinity of the discharge (>800 cfs) make it nearly impossible to have a measurable change in temperature in the river resulting from high effluent temperatures. Additionally, non-uniform, but significant groundwater inflows from the Spokane Valley Rathdrum Prairie Aquifer in this area confound the evaluation of the impact of effluent temperature on river temperature making the comparison of upstream and downstream temperatures of little utility. Due to these reasons the County is requesting that this study be removed in the re-issued NPDES Permit.

## Receiving Water Study: Conventional Parameters

### Section S9.B

Under the SCRWRF existing NPDES Permit, the County is required to conduct annual receiving water studies for conventional parameters in the 2nd and 4th years (in 2013 and 2015, respectively) of the permit cycle. The purpose of the receiving water study is to evaluate measurable differences in water quality between sampling locations upstream and downstream of the facility discharge.

The receiving water study for conventional parameters was completed as required and the results were previously reported to Ecology. Both years of this study concluded that at a 95% significance level there is no statistical difference between the analyte concentrations at the upstream and downstream sampling locations. In addition to the required sampling in 2013 and 2015, Spokane County also collected samples in 2014 and 2016, plus additional monthly samples. Given that this requirement has been completed and the data demonstrate that the effluent from the SCRWRF does not have a measurable impact on the river in regards to the conventional parameters, the County is requesting that this study be removed in the re-issued NPDES Permit.

### References

EPA. 2010. Method 1614A Brominated Diphenyl Ethers in Water, Soil, Sediment, and Tissue by HRGC/HRMS. EPA – 821-R-10-005.

[https://www.epa.gov/sites/production/files/2015-08/documents/method\\_1614a\\_2010.pdf](https://www.epa.gov/sites/production/files/2015-08/documents/method_1614a_2010.pdf)

SGS AXYS Analytical Services. Typical detection limits, method detection limits, low calibration limits, and lower reporting limits for PBDEs by GC/HRMS.

## Attachment C

### Request Receiving Water Critical Flow Change

Attachment C is submitted as part of the Spokane County Regional Water Reclamation Facility (SCRWRF) NPDES Permit renewal application. Effluent from the SCRWRF is discharged at Spokane River Mile 78.7. Spokane County requests that the re-issued NPDES Permit change the summer receiving water aquatic life criteria dilution factors. This request is made due to higher minimum Spokane River flow requirements under Avista's Spokane River Project License issued by the Federal Energy Regulatory Commission (FERC) on June 18, 2009 (license item 57).

### Background

Under the SCRWRF existing NPDES Permit, the receiving water summer 7Q20 flow at the river location of the SCRWRF discharge is 573 cfs (Fact Sheet, page 25). This results in summer acute and chronic dilution factors for aquatic life in the river of 1.77 and 11.89, respectively. These dilution factors were calculated using Spokane River flows that existed prior to the FERC license renewal issued to Avista in June 2009. Prior to the FERC license renewal, Avista was allowed to reduce Spokane River flows at Post Falls to 300 cfs. The renewed FERC license established a minimum flow of 600 cfs with a provision to reduce to 500 cfs if Lake Coeur d'Alene levels fall below a defined elevation. This increased minimum river flow increases the dilution factors at the SCRWRF outfall.

Greene Street gage (at Spokane River Mile 77.8) is the nearest Spokane River gage to the SCRWRF outfall, located less than 1 mile downstream of the SCRWRF outfall. Data since 2015 are presented below showing the relationship of minimum river flows at Post Falls with minimum river flows at the Greene Street gage. (see table 1).

**Table 1. Summer Seven Day Average Low Flow (in cubic feet per second, cfs) for USGS gage 12419000 – Spokane River near Post Falls and USGS gage 12422000 – Spokane River below Greene Street.**

Water Year (WY)	Spokane River near Post Falls (USGS gage 12419000) (cfs)	Spokane River below Greene Street (USGS gage 12422000) (cfs)
WY 2015	498	807
WY 2016	496	853
WY 2017	503	<i>Data not available</i>
WY 2018	503	1056
WY 2019	585	1025
WY 2020	502	956
Previous 7Q20 (prior to 2009 FERC relicense)	300	573
The Post Falls gage low flows are based on data from July 1, 2015 through Sept. 30, 2020 downloaded from the USGS National Water Information System (NWIS) on Oct. 1, 2020. The Greene Street gage low flows are based on data collected from Spokane Community College (SCC) Water Resources between Aug. 6, 2015 and March 20, 2017, and data from Oct. 1, 2017 through Sept. 30, 2020 downloaded from the USGS NWIS on Oct. 1, 2020. At the time of download from the NWIS, data after April 3, 2020 and July 8, 2020 for the Post Falls and Green St. gages, respectively, were noted in the NWIS as provisional and subject to change.		

The relationship between Avista’s FERC license minimum stream flow of 500 cfs at Post Falls and the resulting at least 800 cfs at Greene Street has been consistent over the past several years. As noted above, prior to the renewal of the Spokane River Project License in 2009, it was allowable for Avista to reduce river flows at Post Falls to 300 cfs or the inflow to Lake Coeur d’Alene, whichever was less. That reduced river flow resulted in lower flows at Greene Street, as demonstrated by the 7Q20 of 573 cfs in the existing SCRWRf NPDES permit. Avista’s higher required minimum flows at Post Falls results in a new critical flow at the SCRWRf outfall of at least 800 cfs. Given these several years of data, these flows are considered representative of current river conditions and should be used for calculating dilution factors for the SCRWRf effluent.

For reference, Liberty Lake Sewer and Water District’s Wastewater Treatment Plant NPDES Permit #WA0045144 was modified October 30, 2013 under a similar request for reconsidering low flow statistics and requirements tied to these flows in response to Avista’s FERC relicense. Ecology acknowledged that the 7Q10 flow used in the Liberty Lake Sewer and Water District’s original permit did not account for the minimum instream flow requirements provided as a result of the agreement with Avista and controlled by the upstream Post Falls Dam. In the permit modification, Ecology utilized the minimum instream flow value of 500 cfs rather than the previous value of 262 cfs to modify the effluent pH limits.

## Summary

Avista’s FERC license minimum summer discharge requirement at Post Falls has increased the minimum flow in the Spokane River at the SCRWRf outfall. The table below summarizes proposed new Dilution Factors based upon a Spokane River summer critical flow for aquatic life of 800 cfs and discharge from the SCRWRf of 8.5 MGD (maximum monthly) and 12.1 MGD (maximum day).

**Table 2. Proposed Dilution Factors (WA-0093317)**

	Summer	
Criteria	Acute	Chronic
Aquatic Life	2.07	16.21

## **Attachment D**

### **Request Modification of Effluent Limitations for pH**

Attachment D is submitted as part of the Spokane County Regional Water Reclamation Facility (SCRWRF) NPDES Permit renewal application. Effluent from the SCRWRF is discharged at Spokane River Mile 78.7. Spokane County requests that the re-issued NPDES Permit change the effluent limitations for pH. This request is made due to higher minimum Spokane River flow requirements under Avista's Spokane River Project License issued by the Federal Energy Regulatory Commission (FERC) on June 18, 2009 (license item 57) as well as newly available water quality data for the Spokane River and the SCRWRF effluent.

#### **Background**

The current NPDES permit includes effluent limits for pH as follows: Daily Minimum pH 7.0 and Daily Maximum pH 9.0. These are restrictive because the effluent pH tends to be slightly lower than neutral (acidic) as a result of the treatment processes, including nitrification, chemical addition, etc. This requires the addition of sodium hydroxide at the end of the treatment process to raise the pH above 7 to attain compliance with the effluent limitations.

The Ecology Water Quality Program Permit Writer's Manual instructs the permit writer to use the boundary of the chronic dilution zone at the 7Q10 low flow condition as the point of compliance for the pH standards. The water quality standards for pH include both a range of absolute values and a restriction on the change in pH resulting from the effluent discharge. The receiving water criteria for pH (Salmonid Spawning, Rearing, and Migration) restrict the pH change caused by a source to 0.5 units and within a range of 6.5 to 8.5. The ability of the receiving water to buffer against a change in pH is determined by its alkalinity, the major form of which is assumed to be carbonate alkalinity (as  $\text{CaCO}_3$ ). Both pH and alkalinity are also temperature-dependent parameters.

Since the SCRWRF NPDES permit was issued in 2011, several relevant data have been collected:

- SCRWRF effluent monitoring;
- SCRWRF 2013 and 2015 receiving water study for conventional parameters, plus additional monthly samples during those years;
- Additional receiving water data collected in 2014 and 2016

In addition, the Avista relicensing resulting in higher low-flow conditions at the SCRWRF outfall near Greene Street affects the original permit assumptions regarding the 7Q10 (see Attachment C).

Due to the availability of new data and changed circumstances, the effluent limits for pH should be reevaluated.

## pH Analysis for Compliance at Chronic Mixing Zone Boundary

The pHmix-fresh spreadsheet in the Ecology PermitCalc Excel workbook was used to evaluate whether it is necessary to limit effluent pH to a water quality based effluent limit (WQBEL) more restrictive than the federal technology based effluent limit (TBEL). This spreadsheet calculates the pH after the mixing of the effluent with the Spokane River and reports the maximum pH at the acute and chronic mixing zone boundaries. This analysis only reports the results from the chronic mixing zone boundary since this is the point of compliance for pH.

### Input Values

The calculations in the pHmix-fresh spreadsheet assumes dilution factors for Aquatic Life Criteria at the acute and chronic zone boundary of 2.07 and 16.21 respectively based on an adjusted receiving water critical flow of 800 cfs (see Attachment C).

The Ecology pHmix-fresh spreadsheet calculations require inputting the effluent and receiving water temperature, alkalinity, and pH during the critical season. The County interprets the critical season to be during the period of the lowest flows of the Spokane River, which occurs in August. The input values are summarized in Table D-1.

**Table D-1. Input values for the receiving water and effluent used in the pHmix-fresh Spreadsheet for analyzing compliance with the pH Criteria during critical conditions.**

Parameter (units)	Parameter Value Selection Criteria	Parameter Value Used	Data Source
Ambient Upstream Conditions			
Temperature (°C)	August 7DADMax (2012 – 2019)	15.59	2012 – 2019 Annual Receiving Water Study for Temperature
Alkalinity (mg/L CaCO <sub>3</sub> )	90 <sup>th</sup> Percentile All Data (2013 – 2016)	115.70	2013 and 2015 Receiving Water Study for Conventional Parameters, plus additional receiving water sampling in 2014 and 2016
pH (s.u.)	August Max (2013 – 2016)	7.88	2013 and 2015 Receiving Water Study for Conventional Parameters, plus additional receiving water sampling in 2014 and 2016
Effluent Characteristics			
Temperature (°C)	August 7DADMax (2016 – 2020)	23.60	2016 – 2020 Effluent Data from DMR
Alkalinity (mg/L CaCO <sub>3</sub> )	90 <sup>th</sup> Percentile August Data (2016 – 2020)	97	2016 – 2020 Effluent Data from DMR
pH (s.u.)	Min and Max Allowable	6 and 9	From WAC 173-221-040 (3)

The pHmix-fresh spreadsheet instructions recommend using the 90<sup>th</sup> percentile of critical season data as the input value for the required parameters. The County followed this recommendation for the effluent alkalinity only. The 90<sup>th</sup> percentile of August effluent alkalinity data over the last four years (2016 – 2020) is 97 mg/L CaCO<sub>3</sub> (Table D-1). The selection criteria for the other parameter where the County deviated from the instruction recommendation is summarized in Table D-1 and further explained below.

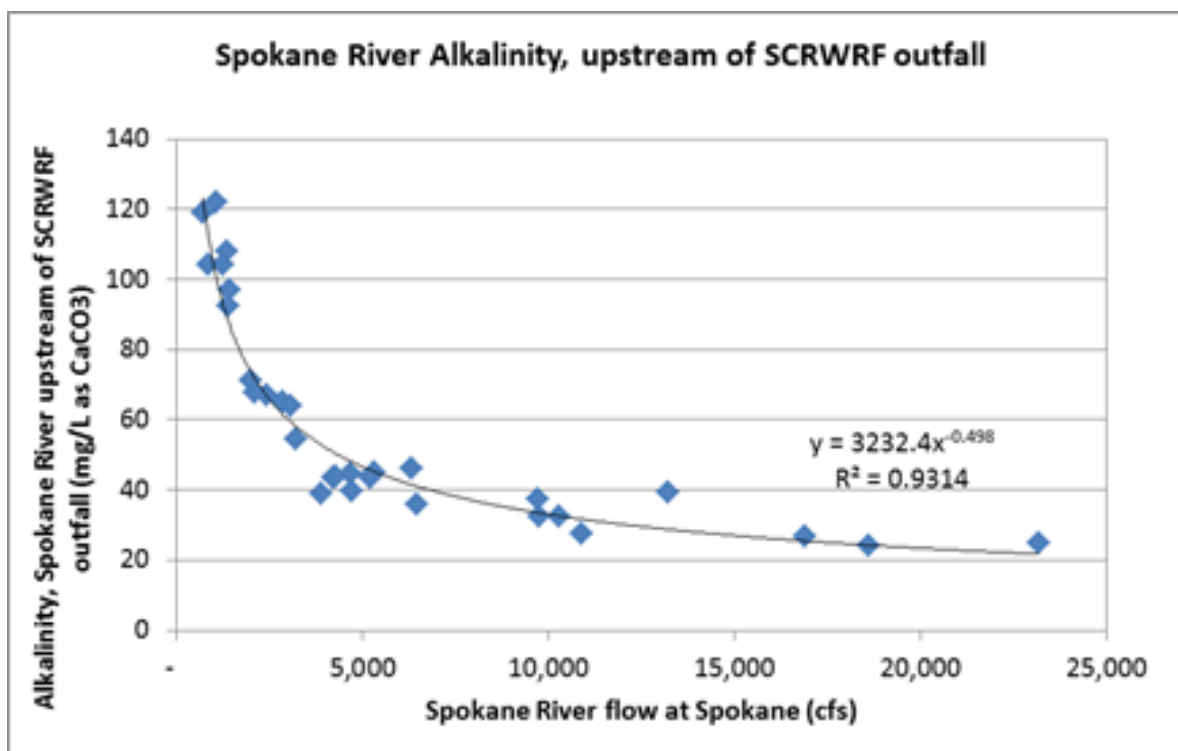
#### *River and Effluent Temperature Values*

While the pHmix-fresh spreadsheet recommends the 90<sup>th</sup> percentile temperature during the critical season, the input spreadsheet instructions recommend using the 7-day average daily maximum (7DADMax) temperature. From the original NDPES permit Fact Sheet, Ecology used the maximum receiving water temperature (18.1<sup>0</sup>C) from data available for a monitoring station at Plantess Ferry Park. Therefore, the County determined that the conservative approach would be to continue using the maximum temperature rather than the 90<sup>th</sup> percentile as recommended. From available data, the highest recorded 7DADMax temperature during August was 15.59<sup>0</sup>C and 23.6<sup>0</sup>C for the river and effluent respectively (Table D-1).

#### *River Alkalinity Value*

From the original NPDES permit Fact Sheet, Ecology utilized an ambient alkalinity of 21 mg/L as CaCO<sub>3</sub> from available data at a state line monitoring station, which does not accurately reflect ambient conditions or buffering capacity of the Spokane River upstream of the SCRWRf outfall during critical conditions. Spokane River alkalinity upstream from the SCRWRf outfall exhibits a very strong correlation to river flow. The data show that as river flow declines, alkalinity increases due to the influence of groundwater inflow, which makes up a substantial portion of the river near the SCRWRf outfall during the critical low flow period (Figure D-1). Given limited August alkalinity data for the Spokane River, the 90<sup>th</sup> percentile for the critical period could be estimated by multiplying the data geomean by 1.74 as described in the instructions; however, this gives a much higher alkalinity (165 mg/L as CaCO<sub>3</sub>) than has been measured. Since alkalinity is strongly correlated with flow, the County determined the conservative approach would be to use the 90<sup>th</sup> percentile of all the Spokane River ambient alkalinity data (115.7 mg/L) to represent low flow critical conditions.





**Figure D-1 Spokane River Alkalinity and River Flow**

#### *River and Effluent pH Values*

The County did not use the 90<sup>th</sup> percentile of pH during the critical season for both the river and effluent, but for different reasons. Given limited August pH data for the Spokane River, the County determined that the conservative approach would be to use the maximum pH rather than the 90<sup>th</sup> percentile as recommended. In the original NDPES permit Fact Sheet, Ecology followed a similar approach using the maximum receiving water pH (8.06) from data available for a monitoring station at Plantes Ferry Park. The maximum August pH recorded during the receiving water studies was 7.88. For the effluent pH, the County used the minimum and maximum pH values allowed under the TBEL (6 and 9, respectively) to determine whether this would cause a violation of the Water Quality Standard (WQS). If the analysis determines a violation may occur, the County would change the effluent pH by  $\pm 0.1$  unit to find the point at which a violation would not occur.

#### **Results**

Table D-2 summarizes the results of Ecology's pHmix-fresh spreadsheet using the input values described in Table D-1. This demonstrates that the minimum allowable pH allowed under the TBEL would be within the pH range required by the WQS but would potentially cause a greater than 0.5 unit change in downstream pH. Based on the pHmix-fresh spreadsheet, the WQS would be met at the chronic mixing zone boundary for effluent pH from at least 6.2 units to 9 units (Table D-1).

**Table D-2. Results of pHmix-fresh Spreadsheet for pH Criteria during critical conditions at the chronic mixing zone boundary under the minimum and maximum allowable technology-based pH standards for the effluent, as well as the minimum effluent pH that meets the Water Quality Standard (WQS).**

Parameter (units)	Minimum Allowable Effluent pH	Minimum Effluent pH that meets WQS	Maximum Allowable Effluent pH
Effluent pH (s.u.)	6	6.2	9
Water Quality Criteria			
Aquatic Life – Chronic (ug/L)	6.5 – 8.5		
Conditions at Chronic Mixing Zone Boundary			
Temperature (°C)	16.08	16.08	16.08
Alkalinity (mg/L CaCO3)	114.55	114.55	114.55
pH	7.23	7.38	7.90
pH change from Upstream Condition	-0.65	-0.50	+0.02

Ecology has previously reconsidered pH limits for another Spokane River municipal discharger in response to Avista’s FERC license. In a modification to the Liberty Lake Sewer and Water District’s Wastewater Treatment Plant NPDES Permit #WA0045144 issued October 30, 2013, Ecology acknowledged that the 7Q10 flow used in the Liberty Lake Sewer and Water District’s original permit did not account for the minimum instream flow requirements resulting from the agreement with Avista and controlled by the upstream Post Falls Dam. In the permit modification, Ecology utilized the minimum instream flow value of 500 cfs rather than the previous value of 262 cfs to modify the pH limits.

## Summary

Given the revised critical receiving water flow resulting from Avista’s FERC license minimum summer discharge requirement, and the Spokane River and SCRWRF effluent data, the pH analysis indicates that the Daily Minimum effluent pH limit could be relaxed. The influence of increased critical flow conditions in the Spokane River resulting from Avista FERC relicensing requirements and substantially higher river alkalinity during low flow conditions alleviate the potential for exceedance of pH water quality standards. Based on the pH analysis using Ecology’s pHmix-fresh spreadsheet, Spokane County would prefer that the effluent limitations for pH utilize:

1. A water quality-based standard for pH of 6.2 to 9 standard units as described above.
  - a. Alternatively, application of the receiving water quality standard of 6.5 to 8.5 as an effluent pH limit would be preferable over the current permit limits.
2. Either revised permit limit would potentially allow for reducing or eliminating the amount of sodium hydroxide added to the effluent to maintain compliance with the current Daily Minimum pH limitations.

## **Attachment E**

### **Request Removal of Effluent Limits for Cadmium, Lead, and Zinc**

Attachment E is submitted as part of the Spokane County Regional Water Reclamation Facility (SCRWRF) NPDES Permit renewal application. Effluent from the SCRWRF is discharged at Spokane River Mile 78.7. Spokane County requests that the re-issued NPDES Permit remove the effluent concentration limitations for cadmium, lead, and zinc. This request is made because there is no reasonable potential for exceedance of water quality standards for cadmium, lead, and zinc.

#### **Background**

The cadmium, lead, and zinc effluent limits included in the original SCRWRF NPDES discharge permit were based upon assumed values from the City of Spokane Riverside Park Reclamation Facility, since the County facility had not yet begun operations. The NPDES Fact Sheet noted that the Spokane River Dissolved Metals Total Maximum Daily Load (Ecology publication 99-49, May 1999) requires either a performance based limit or a water quality based limit using the end of pipe hardness, which was unknown at that time. Hardness is considered in the limits of these metals because the toxicity of a given concentration of a toxic metal is reduced in hard water.

Since the SCRWRF NPDES permit was issued in 2011, several relevant data have been collected:

- SCRWRF effluent monitoring;
- SCRWRF 2013 and 2015 receiving water study for conventional parameters, plus additional monthly samples during those years;
- Additional receiving water data collected in 2014 and 2016

In addition, there have been two notable changes that affect the original permit assumptions:

- Avista relicensing resulting in higher low-flow conditions at the SCRWRF outfall near Greene Street
- Ecology's 2015 state Water Quality Assessment (approved by EPA in 2016) listed cadmium in the Spokane River as Category 1.

Due to the availability of new data and changed circumstances, the effluent limits for cadmium, lead, and zinc should be reevaluated through a reasonable potential analysis.

#### **Reasonable Potential Analysis**

The reasonable potential analysis (RPA) spreadsheet in the Ecology PermitCalc Excel workbook was used to evaluate whether it is necessary to limit effluent discharges of cadmium, lead, and zinc. The calculations in the RPA spreadsheet assumes dilution factors for Aquatic Life Criteria at the acute and chronic zone

boundary of 2.07 and 16.21 respectively based on the adjusted receiving water flow of 800 cfs (see Attachment C). In addition, the calculations are based on “mixed hardness” since the County is assuming the Water Quality Criteria and compliance will be based on mixing of the effluent and river.

The RPA spreadsheet requires inputting both the effluent and river hardness values as well as the effluent and river concentrations of cadmium, lead, and zinc. According to the Ecology RPA spreadsheet instructions, all values used should be from the critical season. The County interprets the critical season to be during the period of the lowest flows of the Spokane River, which occurs in August. The input values are summarized in Table E-1.

**Table D-1. Input values for the receiving water and effluent used in the Reasonable Potential Spreadsheet for analyzing compliance with the cadmium, lead, and zinc Criteria during critical conditions.**

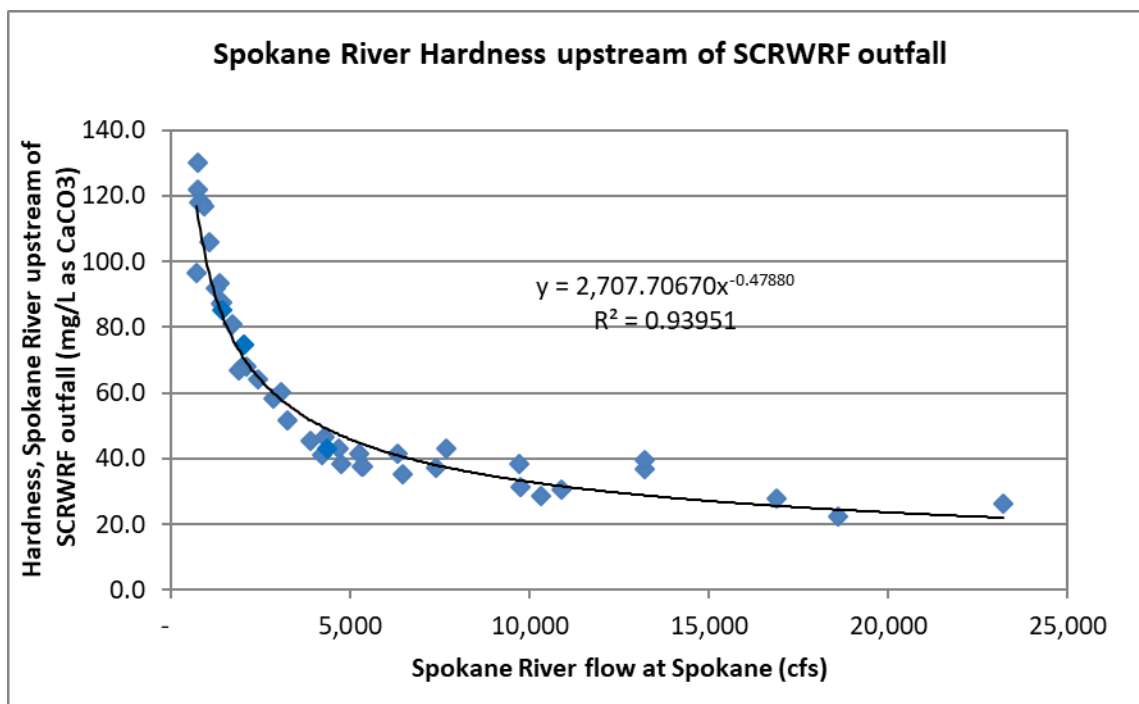
Parameter (units)	Parameter Value Selection Criteria	Parameter Value Used	Data Source
Ambient Upstream Conditions			
Hardness (mg/L CaCO3)	90 <sup>th</sup> Percentile All Data	114.8	2013 and 2015 Receiving Water Study for Conventional Parameters, plus extra sampling in 2014 and 2016
Cadmium (ug/L)	Estimated 90 <sup>th</sup> Percentile August Data	0.051	2013 and 2015 Receiving Water Study for Conventional Parameters, plus additional receiving water sampling in 2014 and 2016
Lead (ug/L)	Estimated 90 <sup>th</sup> Percentile August Data	0.454	2013 and 2015 Receiving Water Study for Conventional Parameters, plus additional receiving water sampling in 2014 and 2016
Zinc (ug/L)	Estimated 90 <sup>th</sup> Percentile August Data	11.63	2013 and 2015 Receiving Water Study for Conventional Parameters, plus additional receiving water sampling in 2014 and 2016
	Geomean of August Data	6.84	
Effluent Characteristics			
Hardness (mg/L CaCO3)	Minimum August Data	116	2016 – 2020 Effluent Data from DMR
Cadmium (ug/L)	Maximum August Data	0.05	2016 – 2020 Effluent Data from DMR
Lead (ug/L)	Maximum August Data	0.36	2016 – 2020 Effluent Data from DMR
Zinc (ug/L)	Maximum August Data	58.5	2016 – 2020 Effluent Data from DMR
	Calculated 50 <sup>th</sup> Percentile August Data	18.0	

The following discusses the selection of the input values.

### Effluent and River Hardness Values

The WQ Criteria tab in the PermitCalc workbook states “the hardness value should be the lowest value from the critical period if the data set is less than 20, or the 10<sup>th</sup> percentile value if the data set is 20 or greater.” The minimum effluent hardness measured in August over the last four years (18 data points) is 116 mg/L CaCO<sub>3</sub>; following these instructions is conservative for the effluent value, as this would contribute the least to the assimilative capacity of the river within the mixing zone. However, the County deviated from the instructions to determine the river hardness value based on the results of the receiving water study.

The receiving water study analyzed hardness data across varying flows for the Spokane River near the SCRWRF outfall (Figure E-1). This demonstrates that hardness has a strong negative correlation to river flow, with hardness decreasing as flow increases. This is due to the influence of groundwater recharge, which makes up a substantial portion of the river near the SCRWRF outfall during the critical low flow period. The County believes the critical flow conditions for hardness should be adjusted to reflect this relationship.



**Figure E-1 Spokane River Alkalinity and River Flow**

Given limited August hardness data for the Spokane River, the 90<sup>th</sup> percentile for the critical period could be estimated by multiplying the data geomean by 1.74 as described in the instructions; however, this gives a much higher hardness (178 mg/L as CaCO<sub>3</sub>) than has been measured. Since hardness is strongly correlated with flow, the County determined the conservative approach would be to use the 90<sup>th</sup> percentile of all the Spokane River ambient hardness data (114.8 mg/L) to represent low flow critical conditions.

The resultant mixed hardness values from the receiving water and effluent are 115.4 mg/L as CaCO<sub>3</sub> for the Acute Zone boundary and 114.9 mg/L as CaCO<sub>3</sub> for the Chronic Zone boundary.

#### **Effluent Cadmium, Lead, and Zinc Concentrations**

The RPA spreadsheet indicates to use the maximum effluent concentrations and a coefficient of variation (CV) of 0.6 where there are less than 20 data points. Given the County has 12 data points each for August concentrations of effluent cadmium, lead, and zinc, these instructions were followed. The maximum August effluent concentrations (see Table E-1) and a CV of 0.6 were used in the calculations. For zinc, it is also required to provide the calculated 50<sup>th</sup> percentile of effluent data when the number of samples is greater than 10. For the SCRWRF effluent zinc, this value is shown in Table E-1.

#### **River Cadmium, Lead, and Zinc Concentrations**

The RPA spreadsheet instructions indicate to use the 90<sup>th</sup> percentile of ambient river data for cadmium, lead, and zinc. However, given limited August data for the Spokane River (4 August data points for each metal), the 90<sup>th</sup> percentile for the critical period could be estimated by multiplying the data geomean by 1.74 as described in the instructions. These instructions were followed and the resultant values are shown in Table E-1. For zinc, it is also required to provide the geomean of river data, which is also shown in Table E-1.

#### **RPA Results**

Based on the previously described conditions, the RPA indicates that there is no potential for exceedance of water quality standards for cadmium, lead, and zinc. Therefore, no need to include effluent limits for these metals. The results of the RPA spreadsheet are shown in Table E-2.

**Table E-2. Results of Reasonable Potential Analysis for Cadmium, Lead, and Zinc Criteria based on adjusted Spokane River flow (800 cfs) and mixed hardness values at critical conditions.**

	Cadmium	Lead	Zinc
<b>Effluent</b>			
# August Samples (2016 – 2020)	12	12	12
Max August Effluent Concentration (ug/L)	0.05	0.36	58.50
Effluent Concentration (ug/L) @ 50 <sup>th</sup> percentile	NA – not used	NA – not used	18.00
<b>Receiving Water</b>			
Concentration (ug/L) @ 90 <sup>th</sup> percentile	0.051	0.454	11.63
Geomean (ug/L)	NA – not used	NA – not used	6.84
<b>Water Quality Criteria</b>			
Aquatic Life – Acute (ug/L)	4.32	75.44	129.20
Aquatic Life – Chronic (ug/L)	1.14	2.93	117.54
Human Health (ug/L)	No criterion	No criterion	1,000
<b>Reasonable Potential</b>			
Aquatic Life Max Concentration @ Edge of Acute (ug/L)	0.064	0.372	51.923
Aquatic Life Max Concentration @ Edge of Chronic (ug/L)	0.054	0.453	17.017
Human Health Max concentration @ Edge of Chronic (ug/L)	No criterion	No criterion	7.34
Reasonable Potential?	NO	NO	NO

### End-of-Pipe Effluent Concentrations Far Below Water Quality Criteria

Table E-3 summarizes the water quality criteria for cadmium, lead, and zinc, along with the effluent concentration data and the effluent limits from the original NPDES permit.

**Table E-3. Summary of Cadmium, Lead, and Zinc Criteria based on adjusted hardness at critical conditions, Effluent Concentrations and Effluent Limits.**

Concentration/Parameter	Cadmium	Lead	Zinc
<b>Water Quality Criteria (based on mixed hardness values)</b>			
Acute, ug/L (Hardness = 115.4 mg/L as CaCO <sub>3</sub> )	4.32	75.44	129.20
Chronic, ug/L (Hardness = 114.9 mg/L as CaCO <sub>3</sub> )	1.14	2.93	117.54
<b>SCRWRF Effluent Concentration (from all data collected 9/1/2015 – 8/31/2020)</b>			
Effluent Data Points (Sept. 2015 – Aug. 2020)	167	150	150

Maximum, ug/L	1.00	1.00	58.5
95 <sup>th</sup> Percentile	0.0918	0.1955	40.8
<b>Original Permit Effluent Limits</b>			
Average Monthly, ug/L	0.076	0.772	53.8
Daily Maximum, ug/L	0.233	1.34	72.6

Analysis of effluent metals data for the SCRWRF effluent discharge over the last five years illustrates that concentrations of cadmium, lead, and zinc at the end-of-pipe are far below the water quality criteria. The 95<sup>th</sup> percentile statistics of effluent concentrations have been compared to the acute criteria for cadmium, lead, and zinc and reveals the following:

- Effluent Cadmium is 46 times lower than the acute criterion
- Effluent Lead is 385 times lower than the acute criterion
- Effluent Zinc is 3 times lower than the acute criterion

In addition, both years of the receiving water study included a paired Wilcoxon signed-rank test to compare the difference in metals concentrations between Spokane River locations upstream and downstream of the SCRWRF outfall. This statistical analysis concluded that at a 95% significance level there is no statistical difference between the cadmium, lead, and zinc concentrations at the upstream and downstream sampling locations (Table E-4). Therefore, the SCRWRF effluent does not appear to affect the concentration of these metals in the Spokane River.

**Table E-4. The results of the paired Wilcoxon signed-rank test for cadmium, lead, and zinc as reported in the 2013 and 2015 Receiving Water Studies for Conventional Parameters.**

Parameter	2013 statistics	2015 statistics
Cadmium	Z = -0.159, p = 0.8734	Z = 0.661, p = 0.5089
Lead	Z = 1.326, p = 0.1849	Z = 1.482, p = 0.1384
Zinc	Z = 0.357, p = 0.7213	Z = 1.682, p = 0.0926

## Summary

The effluent concentration limits for cadmium, lead and zinc for the SCRWRF are unnecessary and can be removed from the NDPES permit effluent limits table. There is no reasonable potential for exceedance of water quality standards for cadmium, lead, and zinc based on receiving water and effluent data. The receiving water study indicates the Spokane River upstream of the SCRWRF outfall has higher capacity to assimilate these metals based on hardness at critical conditions. Effluent hardness in the SCRWRF discharge could contribute to the assimilative capacity of the river, though its influence was minimized in the analysis. In addition, effluent concentrations for cadmium, lead, and zinc at the end-of-pipe are many times lower than the respective water quality standards and do not appear to affect the concentrations of these metals in the river.



## Attachment F

### Request for Sampling Frequency Reduction

In accordance with section S2.E. of NPDES Permit #WA-0093317, “The Permittee may request a reduction of the sampling frequency after twelve (12) months of monitoring.”

Spokane County requests a reduction in monitoring for the following parameters based on Ecology’s Water Quality Program Permit Writer’s Manual (revised July 2918) Chapter 13 Section 1.3 Monitoring Frequency:

- 1) Wastewater Effluent Carbonaceous Biochemical Oxygen Demand (CBOD<sub>5</sub>) from Daily to 4 per week.
  - a) The allowable monitoring frequency based on the ratio of the long-term effluent average to the average monthly limit is 4/week based on effluent CBOD<sub>5</sub> from the five years preceding August 31, 2020. The concentration-based ratio was 52%, allowable 4 per week. The load-based ratio, based on the more stringent effluent limit of 133 lbs/day from November 1 – February 29 was 49%, allowable sampling frequency of 3 per week.
- 2) Wastewater Effluent Total Suspended Solids (TSS) from Daily to 3 per week.
  - a) The allowable monitoring frequency based on the ratio of the long-term effluent average to the average monthly limit is 1 per week based on effluent TSS from the five years preceding August 31, 2020. The concentration-based ratio was 10%, allowable sampling frequency of 1 per week. The load-based ratio was 10%, allowable sampling frequency of 1 per week.
- 3) Wastewater Effluent Dissolved Oxygen from Daily to 5 per week.
  - a) The coefficient of variation was 0.15 for the average effluent Dissolved Oxygen concentration in the five years preceding August 31, 2020. The reduction to 5 per week will lessen the burden on weekend operations.
- 4) Wastewater Effluent Total Ammonia and Total Phosphorus from Daily to 3 per week from November 1 – February 29.
  - a) Seasonal effluent limits for Total Ammonia and Total Phosphorus are applicable from March 1 – October 31, lowering the frequency of effluent testing in seasons without limits will lessen the burden on operations.
- 5) Wastewater Effluent Total Chlorine Residual from Twice per Day Daily to Once per Day.
  - a) The allowable monitoring frequency based on the ratio of the long-term effluent average to the average monthly limit is 3 per week based on the Total Residual Chlorine Residual average concentration from the five years preceding August 31, 2020, a ratio of 25%.
- 6) Wastewater Influent Temperature from Daily to 5 per week.
  - a) Influent temperatures change gradually and seasonally, daily fluctuations are minimal.

- 7) Wastewater Influent Total Phosphorus from Daily to 5 per week.
  - a) The coefficient of variation was 0.23 for the average influent Total Phosphorus concentrations in the five years preceding August 31, 2020. The reduction to 5 per week will lessen the burden on weekend operations.
- 8) Wastewater Influent Carbonaceous Biochemical Oxygen Demand (CBOD<sub>5</sub>) from Daily to 5 per week.
  - a) The coefficient of variation was 0.22 for the average influent CBOD<sub>5</sub> concentrations in the five years preceding August 31, 2020. The reduction to 5 per week will lessen the burden on weekend operations.
- 9) Wastewater Influent Total Suspended Solids (TSS) from Daily to 5 per week.
  - a) The coefficient of variation was 0.16 for the average influent TSS in the five years preceding August 31, 2020. The reduction to 5 per week will lessen the burden on weekend operations.

## Attachment G

### Request Removal of Ammonia Nitrogen Effluent Limits Based on Toxicity

Attachment G is submitted as part of the Spokane County Regional Water Reclamation Facility (SCRWRF) NPDES Permit renewal application. Effluent from the SCRWRF is discharged at Spokane River Mile 78.7. Spokane County requests that the re-issued NPDES Permit remove the maximum daily effluent concentration limits for ammonia nitrogen for the SCRWRF. This request is made because there is no reasonable potential for exceedance of ammonia criteria for toxicity. The effluent mass ammonia limits based on the Spokane River Dissolved Oxygen TMDL must be retained.

#### Background

The ammonia nitrogen limits included in the original SCRWRF NPDES discharge permit included effluent limits based on the Spokane River Dissolved Oxygen TMDL, as well as limits based on preventing toxicity. The ammonia limits based on the TMDL are expressed as seasonal mass loading limits. The toxicity based effluent limits are expressed as maximum daily concentration limits. Table G-1 summarizes the structure of the effluent limits in the current NPDES permit.

**Table G-1. Ammonia Limits Excerpt from Spokane County NPDES Permit (Section S1.B, November 29, 2011)**

<b>Total Ammonia (as NH<sub>3</sub>-N)</b>	<b>Seasonal Limit</b>	<b>Maximum Daily Limit <sup>d</sup></b>
For “season” of March 1 to March 31	1067.5 lbs/day average	16mg/L
For “season” of April 1 to May 31	66.7 lbs/day average	16 mg/L
For “season” of June 1 to Sept. 30	16.7 lbs/day average	8.0 mg/L
For “season” of Oct. 1 to Oct. 31	66.7 lbs/day average	16 mg/L

Ammonia's toxicity depends on that portion which is available in the unionized form. The amount of unionized ammonia depends on the temperature and pH in the receiving freshwater.

Since the SCRWRF NPDES permit was issued in 2011, several relevant data have been collected:

- SCRWRF effluent monitoring;
- SCRWRF 2013 and 2015 receiving water study for conventional parameters (including ammonia and pH), plus additional monthly samples during those years;
- Additional receiving water data for conventional parameters collected in 2014 and 2016; and
- SCRWRF receiving water study for temperature (2012 – 2019).

In addition, Avista relicensing resulting in higher low-flow conditions at the SCRWRF outfall near Greene Street affects the original permit assumptions regarding the receiving water critical flow.

Due to the availability of new data and new circumstances, the effluent limits for ammonia nitrogen should be reevaluated through a reasonable potential analysis.

## Reasonable Potential Analysis

The reasonable potential analysis (RPA) spreadsheet in the Ecology PermitCalc Excel workbook was used to evaluate whether it is necessary to limit effluent ammonia discharges based on toxicity. The calculations in the RPA spreadsheet assumes dilution factors for Aquatic Life Criteria at the acute and chronic zone boundary of 2.07 and 16.21 respectively based on the following an adjusted receiving water critical flow of 800 cfs (see Attachment C). In addition, the calculations are based on “mixed temperature” and “mixed pH” since the County is assuming the Water Quality Criteria and compliance will be based on mixing of the effluent and river.

The RPA spreadsheet requires inputting both the effluent and river temperature, pH, and ammonia concentrations. According to the Ecology RPA spreadsheet instructions, all values used should be from the critical season. The County interprets the critical season to be during the period of the lowest flows of the Spokane River, which occurs in August. The input values are summarized in Table G-2.

**Table G-2. Input values for the receiving water and effluent used in the Reasonable Potential Spreadsheet for analyzing compliance with the ammonia criteria during critical conditions. \*Note that the ambient ammonia concentration used for critical conditions is an artifact of conservative multiplication following Ecology instructions and is likely artificially high. County receiving water studies never detected ammonia above the laboratory detection limit of 0.01 mg/L in August samples.**

Parameter (units)	Parameter Value Selection Criteria	Parameter Value Used	Data Source
<b>Ambient Upstream Conditions</b>			
Temperature (°C)	August 7DADMax	15.59	2012 – 2019 Annual Receiving Water Study for Temperature
Alkalinity (mg/L CaCO <sub>3</sub> )	90 <sup>th</sup> Percentile All Data	115.70	2013 and 2015 Receiving Water Study for Conventional Parameters, plus extra sampling in 2014 and 2016
pH (s.u.)	August Max	7.88	2013 and 2015 Receiving Water Study for Conventional Parameters, plus additional receiving water sampling in 2014 and 2016
Ammonia (ug/L, total NH <sub>3</sub> )	Estimated 90 <sup>th</sup> Percentile August Data	17.0*	2013 and 2015 Receiving Water Study for Conventional Parameters, plus additional receiving water sampling in 2014 and 2016
<b>Effluent Characteristics</b>			
Temperature (°C)	August 7DADMax	23.60	2016 – 2020 Effluent Data from DMR
Alkalinity (mg/L CaCO <sub>3</sub> )	90 <sup>th</sup> Percentile August Data	97	2016 – 2020 Effluent Data from DMR
pH (s.u.)	Min and Max Allowable	6 and 9	From WAC 173-221-040 (3)
Ammonia (ug/L, total NH <sub>3</sub> )	95 <sup>th</sup> Percentile August Data	383.0	2016 – 2020 Effluent Data from DMR

The selection of the input values for effluent and river temperature, alkalinity, and pH are described in Attachment D, as the same values are used here as was used in the pH analysis. The following is a discussion of the selected ammonia input values.

### Effluent and River Ammonia Values

The RPA spreadsheet instructions state to use the 95<sup>th</sup> percentile of effluent ammonia data and to calculate the coefficient of variation (CV) of the data set when there are more than 20 samples (n>20). The County has 155 August data points for effluent ammonia. The 95<sup>th</sup> percentile of this data is 0.383 mg/L (or 383 ug/L) and the CV is 0.86.

The RPA spreadsheet instructions recommend use of the 90<sup>th</sup> percentile value of the receiving water ammonia during the critical season. The receiving water data includes only four data points for Spokane River ammonia upstream of the SCRWF outfall from each August between 2013 and 2016. Of note, all August receiving water samples for ammonia were less than the laboratory detection limit of 0.010 mg/L. The RPA instructions state the 90<sup>th</sup> percentile of a small receiving water data set (n<20) must be estimated by multiplying the geomean of the data by 1.74. Since ammonia was not detectable during critical season, the County decided that the conservative approach would be to use the detection limit as the geomean. Therefore, the estimated Spokane River ambient ammonia data is 0.017 mg/L (or 17 ug/L).

### RPA Results

There are two sets of results for the RPA for ammonia based on the County's requested minimum and maximum effluent pH values (6.2 and 9, respectively) to determine whether this effluent pH range would cause a violation of the Water Quality Standard (WQS) (see Table G-3 and Attachment D). This is necessary since the effluent pH values affect the mixing zone pH values and the ammonia WQS on which the analysis is based.

**Table G-3. Results of Reasonable Potential Analysis for Ammonia Criteria as Total NH<sub>3</sub> based on toxicity at critical conditions using mixed temperature and pH values.**

	Effluent pH 6.2	Effluent pH 9
<b>Effluent</b>		
# August Samples (2016 – 2020)	155	155
Ammonia Concentration (ug/L) @ 95 <sup>th</sup> percentile	383	383
CV	0.86	0.86
<b>Receiving Water</b>		
Ammonia Concentration (ug/L) @ 90 <sup>th</sup> percentile	17.0	17.0
<b>Mixing Zone Boundary Conditions</b>		
Acute Temperature	19.5	19.5
Acute pH	6.6	8.1
Chronic Temperature	16.1	16.1
Chronic pH	7.4	7.9
<b>Water Quality Criteria for Ammonia</b>		
Aquatic Life – Acute (ug/L)	31,682	4,822
Aquatic Life – Chronic (ug/L)	1,969	1,444
<b>Reasonable Potential</b>		
Aquatic Life Max Concentration @ Edge of Acute (ug/L)	194.15	194.15

Aquatic Life Max Concentration @ Edge of Chronic (ug/L)	39.95	39.95
Reasonable Potential?	NO	NO

The RPA spreadsheet calculates the ammonia concentration at the acute mixing zone as 194.15 ug/L and the chronic mixing zone as 39.95 ug/L. These are well below the acute and chronic water quality standards calculated by the RPA spreadsheet for both the minimum and maximum effluent pH values requested by the County (Table G-3). Therefore, there is no reasonable potential for exceedance of the toxicity criteria.

### No Effect on Spokane River Ammonia Concentrations

The 2013 and 2015 receiving water studies included a paired Wilcoxon signed-rank test to compare the difference in ammonia concentrations between Spokane River locations upstream and downstream of the SCRWRf outfall. This statistical analysis concluded that at a 95% significance level there is no statistical difference between the upstream and downstream ammonia concentrations (Table G-4). Therefore, the SCRWRf effluent does not appear to affect the concentration of ammonia in the Spokane River.

**Table G-4. The results of the paired Wilcoxon signed-rank test for ammonia as reported in the 2013 and 2015 Receiving Water Studies for Conventional Parameters.**

2013 Statistics	$z = 1.412, p = 0.1579$
2015 Statistics	$z = -1.412, p = 0.1579$

### Summary

The maximum daily effluent concentration limits for ammonia nitrogen for the SCRWRf are unnecessary and can be removed from the NDPES permit effluent limits table. There is no reasonable potential for exceedance of water quality standards for ammonia based on receiving water and effluent data. In addition, effluent ammonia does not appear to affect the concentration of ammonia in the river.

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NO. 12-0014

BEFORE THE BOARD OF COUNTY COMMISSIONERS  
OF SPOKANE COUNTY, WASHINGTON

IN THE MATTER OF AUTHORIZING	)	
THE DIRECTOR OF UTILITIES AND	)	
OTHER INDIVIDUALS TO SIGN	)	RESOLUTION
DOCUMENT SUBMITTALS TO THE	)	
WASHINGTON STATE DEPARTMENT	)	
OF ECOLOGY REQUIRED UNDER	)	
NATIONAL POLLUTANT DISCHARGE	)	
ELIMINATION SYSTEM PERMIT	)	
WA-0093317	)	

**WHEREAS**, pursuant to the provisions of the Revised Code of Washington, Section 36.32.120(6), the Board of County Commissioners of Spokane County (hereinafter the "Board") has the responsibility for the care of County property and the management of County funds and business; and

**WHEREAS**, pursuant to the provisions of RCW Chapter 36.94, the Board has the authority to construct, operate and maintain a system of sewerage pursuant to the adopted Comprehensive Wastewater Management Plan; and

**WHEREAS**, Spokane County completed Wastewater Facilities Planning Documents recommending construction of a new Spokane County Regional Water Reclamation Facility (SCRWRF), and purchased a site commonly known as the Stockyards; and

**WHEREAS**, the County evaluated alternative delivery methods for the project and selected a private public partnership using design-build-operate (DBO) as the delivery method for the SCRWRF; and

**WHEREAS**, DBO is a delivery method specifically authorized for Spokane County under the Washington State Water Quality Joint Development Act, Chapter 70.150 RCW; and

**WHEREAS**, Spokane County conducted a selection process pursuant to Chapter 70.150 RCW, under which CH2M HILL Constructors Inc. was selected; and

**WHEREAS**, the Board executed a service contract with CH2M HILL Constructors Inc. on January 13, 2009 to design and build the SCRWRF, and to operate the SCRWRF for 20 years; and

**WHEREAS**, a National Pollutant Discharge Elimination System (NPDES) permit WA-0093317 was issued to Spokane County by the Washington State Department of Ecology on November 29, 2011 for the SCRWRF; and



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**WHEREAS**, the operations of the SCRWRf by CH2M HILL began on December 1, 2011 in accordance with the NPDES permit; and

**WHEREAS**, the NPDES permit requires submittal of monthly Discharge Monitoring Reports (DMRs), which characterize the performance of the SCRWRf compared to the NPDES permit requirements; and

**WHEREAS**, Special Condition S.3.E of the NPDES permit requires the submittal of reports on permit violations and Special Condition S.5.F of the NPDES permit requires submittal of a report on a bypass; and

**WHEREAS**, the NPDES permit requires numerous Permit Report Submittals during the effective period of the permit.

**NOW, THEREFORE, BE IT RESOLVED** by the Board of County Commissioners of Spokane County that the Operations Project Manager for CH2M HILL is hereby authorized to sign and submit to the Washington State Department of Ecology the required DMRs, permit violation reports, and bypass reports as specified in the National Pollutant Discharge Elimination System Permit, on behalf of Spokane County, and


**BE IT FURTHER RESOLVED** by the Board of County Commissioners of Spokane County that the Director of Utilities, or a written designee of the Director, is hereby authorized to sign and submit to the Washington State Department of Ecology all of the required Permit Report Submittals specified in the National Pollutant Discharge Elimination System Permit WA-0093317.

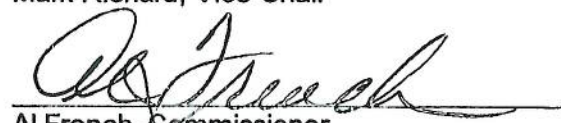
**APPROVED BY THE BOARD** this 10<sup>th</sup> day of January, 2012.



**BOARD OF COUNTY COMMISSIONERS  
OF SPOKANE COUNTY, WASHINGTON**

  
Todd Mielke, Chair

  
Mark Richard, Vice-Chair

  
Al French, Commissioner

ATTEST:

By:   
Daniela Erickson, 12-0014  
Clerk of the Board