



**Badin Business Park LLC**

Highway 740  
P.O. Box 576  
Badin, NC 28009  
Tel: 1 704 422 5865

July 8, 2022

Amirhossein (Amir) Rezaei Adaryani, PhD  
Environmental Engineer I  
Industrial NPDES Permitting Unit  
Division of Water Resources  
North Carolina Department of Environmental Quality  
512 North Salisbury Street  
1611 Mail Service Center  
Raleigh, NC 27699-1611

RE: Response to Request for Additional Information  
NPDES Application NC0004308  
Badin Business Park, LLC

Dear Dr. Adaryani:

Badin Business Park, LLC (BBP) respectfully submits the following responses to the Request for Additional Information letter dated May 17, 2022 (the comments are quoted below in italics followed by BBP's response in bold):

1. *"In Form 2E, section 4, the mass is reported as "#/day" which seems to be a typo. Please correct it to correct units."*

**Form 2E, Section 4 requests that units be specified for the data provided. However, the space needed for both the data and units typically exceeds the very limited space available on the form. The "#" is a common symbol for "pound" and was used to conserve space when providing units for mass data (i.e., #/day rather than lbs/day). If this is unacceptable, please advise and revised forms will be provided.**

2. *"Please expand on the source of Chlorine reported in Form 2E for outfall 005, while no treatment system exists. [Note: In the current permit there is a limit for total residual chlorine for outfall 005.]"*

**The onsite potable water system is supplied by the City of Albemarle's water utility. Leaks from the potable water system may result in discharge of chlorinated water via Outfall 005. There is no known source of Chlorine at the site other than the potable water system.**

3. *"Please elaborate on section 5.2 of Form 2E, especially for the ones that list fire protection water. Please consult EPA Form 2E instructions."*

EPA Form 2E instructions for Section 5.2 requests frequency, volume, and duration of any intermittent or seasonal discharges (except for stormwater runoff, leaks, or spills). After further discussions with onsite personnel, it was determined that fire protection system maintenance activities no longer occur at the site. Therefore, the only discharges from the site are related to stormwater or leaks or spills from the potable water system. (Although not direct stormwater runoff, groundwater discharges are dependent on stormwater.) Section 5.2 of Form 2E has been revised to remove fire protection water from all applicable outfalls.

4. *"Please report any missing temperature or other parameters in section 4.2 of 2E Form. Please consult EPA Form 2E instructions."*

Section 4.2 of the attached Form 2Es for Outfalls 005, 011, 012, and 013 have been revised as follows:

- **Temperature (summer) data were added for Outfalls 005, 011, 012, and 013.** Temperature (summer) data were initially unavailable for these outfalls because temperature is not a routinely monitored parameter and the renewal application was submitted prior to the summer monitoring period (May-October). Temperature data were recently measured for Outfalls 005, 011, 012, and 013 in May.
- **Maximum Daily Mass data were added for BOD, Oil and Grease, and Ammonia for Outfall 011.** Mass data for these parameters were not reported because an accurate flow could not be determined due to an error with the flow meter on the day of sampling. In response to this request, conservative estimates for daily maximum mass data were calculated using the reported maximum daily discharge flow since completion of the shallow stormwater system in March 2019 (0.22 MGD).
- **Average daily discharge mass and concentration data were provided for parameters with one data point for Outfalls 005, 011, 012, and 013.** Typically, average daily discharge data are only calculated for parameters with multiple data points since the maximum and average values are the same for datasets with one data point. In response to this request, average daily discharge mass and concentration data were added for parameters with only one data point.
- **"NA" entered in "Source" column.** According to the instructions for Form 2E, the "Source" column only pertains to new discharges. Therefore, "NA" was entered in this column since Outfalls 005, 011, 012, and 013 are existing discharges.
- **Outfall 019 data remains unavailable due to lack of discharge.** As mentioned in the Waiver Request submitted with the application, sampling of Outfall 019 for the required parameters was not possible due to lack of discharge. Due to site improvements made in 2007 (see response to Item 9), Outfall 019 does not discharge during dry weather. Therefore, no changes to the Form 2E for Outfall 019 were made.

5. *“Please explain about your waiver request for lack of discharge in outfall 011 and 019, while the amended Form 2E of outfall 011 reported 9 MGD flow. The facility can wait for any related sample collection until end of high precipitation season (summer), but it is better to report the result as soon as possible.”*

The waiver request was submitted to explain the absence of data for the required Form 2E parameters at Outfalls 011 and 019 due to lack of discharge. The waiver was intended to be temporary as stated with the required sampled being collected from the next discharge.

Discharge from Outfall 011 has only occurred 18 times since the permit modification (July 2, 2019) with the maximum reported discharge flow of 0.22 MGD occurring in October 2021. (The 9 MGD maximum discharge flow reported on the amended Form 2E for Outfall 011 was a typographical error.) The last discharge from Outfall 011 was on April 18, 2022. This discharge was sampled for the required parameters, but the data were not available until after the application had been submitted. The amended Form 2E was submitted to report data from this sampling. Therefore, the waiver request for Outfall 011 is no longer needed.

Discharge from Outfall 019 has only occurred three (3) times since the permit modification. The last discharge occurred on February 22, 2021 during a storm event. This discharge was sampled for the required Form 2F parameters. Due to site improvements made in 2007 (see response to Item 9), Outfall 019 does not discharge during dry weather. Therefore, the waiver request for Form 2E sampling at Outfall 019 remains.

6. *“Per Form 2E section 4.3, no “control measure and treatment” exist for outfall 005. Considering the frequent violation of Fluoride (and some Cyanide violations) in the current permitting cycle, what actions has BBP [Badin Business Park] taken or plans to take to meet the outfall limits? Per the DEQ discussion with BBP during in-person meeting on March 9<sup>th</sup>, 2022, in Archdale building, and per condition B.(2.)2.(a) of current permit a feasibility study can be done to evaluate contamination source reduction alternatives and end-of-pipe treatment alternatives.”*

As discussed in the May 27, 2022 letter from BBP to DEQ regarding the summary of the March 9, 2022 meeting, BBP has made many site improvements resulting in a reduction in fluoride and continues to explore options for compliance, but our initial assessment showed traditional treatment options (i.e., reverse osmosis, adsorption, coagulation/filtration, lime/soda ash softening) are not viable, as the flows at this Outfall are highly variable and dependent on both rainfall and groundwater elevation. Treatment of a stormwater discharge in its entirety is not realistic using traditional treatment technologies for fluoride and treating subsets of flow becomes problematic as many of these technologies require a consistent base flow.

Further BBP introduced our current effort to refine the hydraulic conceptual site model and one of the associated tasks will look to validate a conceptualization to divert groundwater around the site thereby reducing the potential for fluoride containing groundwater to infiltrate into the storm sewer. The field investigation portion of this work began the week of June 13, 2022 and is expected to

continue through the month. System design will begin following completion of the proof-of-concept work.

BBP also feels permitting alternatives, as described in our March 9, 2022 letter, would be protective and aid in compliance at Outfall 005. We are awaiting the Department's response to this information.

Finally, the Department recommended the use of a document similar to an Engineering Alternatives Analysis to aid in assessing potential solutions for Outfall 005. Should the preset efforts be found insufficient to address further reductions in fluoride, the Engineering Alternatives Analysis would be used to communicate the assessment of treatment alternatives.

7. *"Please fill all missing items (or correct items) in tables A-D in Forms 2F (all outfalls, as applicable). Please consult and carefully follow EPA Form 2F instructions."*

Tables A-D in Forms 2F were revised as follows:

**Tables A, B, and C:** Consistent with previous application submittals, only grab samples for the required parameters were collected and reported on Form 2F. In order to complete all requested information, "NA" was entered in the "Flow-Weighted Composite" columns for both maximum and average daily discharge. The data for parameters with only one storm event sampled was entered for both the maximum and average discharges under the "Grab Sample Taken During First 30 Minutes" column. As stated on the form and in the instructions for Form 2F, the "Source of Information" column only pertains to new sources/discharges. Therefore, "NA" was entered since these outfalls are existing discharges.

**Table D:** As stated on the form and in the instructions for Form 2F, Table D applies to storm event(s) that resulted in the maximum daily discharges for the flow weighted composite sample. Since only data for grab samples is reported, Table D does not apply. Therefore, "NA" was entered for all requested information.

8. *"During the site visit by DWR staff on March 22<sup>nd</sup>, we noticed train cars parked on the tracks as part of a lease to a third party. Please expand on the possible effects of this and other ancillary activities on stormwater from drainage areas (such as 2, 3 and 4) and corresponding outfalls. What Best Management Practices (BMPs) are in place to minimize the possible adverse effects on outfalls?"*

The railroad tracks in the northern portion of the facility have been leased by a third party for the storage of railcars and engines. The railcars are not used for transporting cargo to or from the site. They arrive to the site empty and are stored as such until needed offsite. As specified in the site's current Stormwater Pollution Prevention Plan (SWPPP), the tenant is responsible for all spills and releases related to railcar storage and maintenance. No resulting adverse impacts have been observed onsite or at the outfalls due to these activities.

9. *“Also, during the site visit the BBP staff mentioned about the rehabilitation needed for impoundment in brick closed landfill, discharging to outfall 019. Please elaborate on mentioned plans, and its possible effects on outfall 019.”*

**Outfall 019 had historically consisted of groundwater and stormwater discharge. In 2007, a new cover and stormwater management system was installed as a maintenance activity to support the elimination of discharge to Outfall 19. Resurfacing of the landfill was considered part of maintenance in support of the NPDES Permit. Waste within the unit was not disturbed or managed during these maintenance activities.**

**The landfill profile was revised with the placement of up to 20 feet of compacted fill to improve structural stability and surface drainage. The new reshaped landfill surface then received a 1.5-foot compacted low permeable clay layer. Laboratory testing of this material shows it has a permeability of less than  $1 \times 10^{-7}$  cm/sec. This compacted clay layer was overlaid with a 40-mil textured linear low density polyethylene (LLDPE) synthetic liner. A high flow synthetic drainage system was installed over the liner. The synthetic drainage system was composed of a double-sided geo-composite consisting of a geonet with geotextile bonded to both sides having a transmissivity of  $4 \times 10^{-3}$  (m<sup>2</sup>/sec) (min.). A 24-inch soil/grass layer was then placed over the synthetic drainage system.**

**The soil/grass cover has a finite storage capacity for the absorption of rainfall and resulting evapotranspiration. Any rainfall beyond soil/cover storage capacity will either run-off or drain from atop the liner through the synthetic drainage system to a new diffuser toe-drain to simulate sheet-flow. A storm water retention pond was added to collect the discharge from the new toe-drain. The retention pond was constructed with a highly permeable bottom to allow percolation of the collected water into the subsurface. The pond was designed to hold the 25-year/24-hour storm event. Upon reaching the design capacity, the pond is designed to discharge through an overflow notch and diffuser to allow sheet flow from the area. In 2010, Alcoa conducted analysis of the infiltration pond to determine if both the infiltration rate of the pond and the available storage capacity could be increased. To achieve these goals, the bottom (infiltration) area of the pond was expanded from approximately 1,190 square feet to approximately 2,040 square feet. Expanding the bottom was accomplished by excavating and re-grading the southern slope of the pond, which thereby increased the available storage volume.**

**As a result of these improvements, Outfall 019 discharges infrequently and contains only stormwater from the Old Brick Landfill cover system. The retention pond water level appears to remain elevated for longer periods of time possibly due to sediment accumulation. The performance of the infiltration gallery will be monitored to assess the need for maintenance, but there are no specific plans for maintenance activities at this time.**

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Should the Department have any additional questions or comments please do not hesitate to reach out to me at 412.389.1768 or via email at [robyn.gross@alcoa.com](mailto:robyn.gross@alcoa.com)

Sincerely,



Robyn L. Gross  
Director, Asset Management Americas

cc via email:

Douglas Dowden, NCDEQ NPDES Industrial Permitting Supervisor  
Corey Basinger, NCDEQ Mooresville Regional Office/Water Quality  
Anna Gurney, NCDEQ Public Information Officer  
Jason Mibroda, Alcoa Remediation Manager

**EPA Form 2E**

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**Outfall 005**





EPA Identification Number NCD 003 162 542	NPDES Permit Number NC0004308	Facility Name Badin Business Park, LLC	Form Approved 03/05/19 OMB No. 2040-0004
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<b>Effluent Characteristics Continued</b>	4.3	Is fecal coliform believed present, or is sanitary waste discharged (or will it be discharged)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No → SKIP to Item 4.5.						
	4.4	Provide data as requested in the table below. <sup>1</sup> (See instructions for specifics.)						
		<b>Parameter or Pollutant</b>	<b>Number of Analyses</b> <small>(if actual data reported)</small>	<b>Maximum Daily Discharge</b> <small>(specify units)</small>		<b>Average Daily Discharge</b> <small>(specify units)</small>		<b>Source</b> <small>(Use codes per Instructions.)</small>
				<b>Mass</b>	<b>Conc.</b>	<b>Mass</b>	<b>Conc.</b>	
		Fecal coliform						
	<i>E. coli</i>							
	Enterococci							
	4.5	Is chlorine used (or will it be used)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No → SKIP to Item 4.7.						
	4.6	Provide data as requested in the table below. <sup>1</sup> (See instructions for specifics.)						
		<b>Parameter or Pollutant</b>	<b>Number of Analyses</b> <small>(if actual data reported)</small>	<b>Maximum Daily Discharge</b> <small>(specify units)</small>		<b>Average Daily Discharge</b> <small>(specify units)</small>		<b>Source</b> <small>(use codes per instructions)</small>
			<b>Mass</b>	<b>Conc.</b>	<b>Mass</b>	<b>Conc.</b>		
Total Residual Chlorine		52	0.18 #/day	107 ug/L	0.03 #/da	17.4 ug/	NA	
4.7	Is non-contact cooling water discharged (or will it be discharged)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No → SKIP to Section 5.							
4.8	Provide data as requested in the table below. <sup>1</sup> (See instructions for specifics.)							
	<b>Parameter or Pollutant</b>	<b>Number of Analyses</b> <small>(if actual data reported)</small>	<b>Maximum Daily Discharge</b> <small>(specify units)</small>		<b>Average Daily Discharge</b> <small>(specify units)</small>		<b>Source</b> <small>(use codes per instructions)</small>	
			<b>Mass</b>	<b>Conc.</b>	<b>Mass</b>	<b>Conc.</b>		
	Chemical oxygen demand (COD)							
	Total organic carbon (TOC)							

<b>SECTION 5. FLOW (40 CFR 122.21(h)(5))</b>		
<b>Flow</b>	5.1	Except for stormwater water runoff, leaks, or spills, are any of the discharges you described in Sections 1 and 3 of this application intermittent or seasonal? <input type="checkbox"/> Yes → Complete this section. <input checked="" type="checkbox"/> No → SKIP to Section 6.
	5.2	Briefly describe the frequency and duration of flow. Groundwater discharges are dependent on stormwater.

<b>SECTION 6. TREATMENT SYSTEM (40 CFR 122.21(h)(6))</b>		
<b>Treatment System</b>	6.1	Briefly describe any treatment system(s) used (or to be used). No treatment system present.

<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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**Outfall 011**



EPA Identification Number NCD 003 162 542	NPDES Permit Number NC0004308	Facility Name Badin Business Park, LLC	Form Approved 03/05/19 OMB No. 2040-0004
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<b>Effluent Characteristics Continued</b>	4.3	Is fecal coliform believed present, or is sanitary waste discharged (or will it be discharged)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No → SKIP to Item 4.5.						
	4.4	Provide data as requested in the table below. <sup>1</sup> (See instructions for specifics.)						
		<b>Parameter or Pollutant</b>	<b>Number of Analyses</b> <small>(if actual data reported)</small>	<b>Maximum Daily Discharge</b> <small>(specify units)</small>		<b>Average Daily Discharge</b> <small>(specify units)</small>		<b>Source</b> <small>(Use codes per Instructions.)</small>
				<b>Mass</b>	<b>Conc.</b>	<b>Mass</b>	<b>Conc.</b>	
		Fecal coliform						
		<i>E. coli</i>						
		Enterococci						
	4.5	Is chlorine used (or will it be used)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No → SKIP to Item 4.7.						
	4.6	Provide data as requested in the table below. <sup>1</sup> (See instructions for specifics.)						
		<b>Parameter or Pollutant</b>	<b>Number of Analyses</b> <small>(if actual data reported)</small>	<b>Maximum Daily Discharge</b> <small>(specify units)</small>		<b>Average Daily Discharge</b> <small>(specify units)</small>		<b>Source</b> <small>(use codes per instructions)</small>
			<b>Mass</b>	<b>Conc.</b>	<b>Mass</b>	<b>Conc.</b>		
	Total Residual Chlorine							
4.7	Is non-contact cooling water discharged (or will it be discharged)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No → SKIP to Section 5.							
4.8	Provide data as requested in the table below. <sup>1</sup> (See instructions for specifics.)							
	<b>Parameter or Pollutant</b>	<b>Number of Analyses</b> <small>(if actual data reported)</small>	<b>Maximum Daily Discharge</b> <small>(specify units)</small>		<b>Average Daily Discharge</b> <small>(specify units)</small>		<b>Source</b> <small>(use codes per instructions)</small>	
			<b>Mass</b>	<b>Conc.</b>	<b>Mass</b>	<b>Conc.</b>		
	Chemical oxygen demand (COD)							
	Total organic carbon (TOC)							

<b>SECTION 5. FLOW (40 CFR 122.21(h)(5))</b>		
<b>Flow</b>	5.1	Except for stormwater water runoff, leaks, or spills, are any of the discharges you described in Sections 1 and 3 of this application intermittent or seasonal? <input type="checkbox"/> Yes → Complete this section. <input checked="" type="checkbox"/> No → SKIP to Section 6.
	5.2	Briefly describe the frequency and duration of flow. Groundwater discharges are dependent on stormwater.

<b>SECTION 6. TREATMENT SYSTEM (40 CFR 122.21(h)(6))</b>		
<b>Treatment System</b>	6.1	Briefly describe any treatment system(s) used (or to be used). No treatment system present.

<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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**Outfall 012**



EPA Identification Number NCD 003 162 542	NPDES Permit Number NC0004308	Facility Name Badin Business Park, LLC	Form Approved 03/05/19 OMB No. 2040-0004
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<b>Effluent Characteristics Continued</b>	4.3	Is fecal coliform believed present, or is sanitary waste discharged (or will it be discharged)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No → SKIP to Item 4.5.						
	4.4	Provide data as requested in the table below. <sup>1</sup> (See instructions for specifics.)						
		<b>Parameter or Pollutant</b>	<b>Number of Analyses</b> <small>(if actual data reported)</small>	<b>Maximum Daily Discharge</b> <small>(specify units)</small>		<b>Average Daily Discharge</b> <small>(specify units)</small>		<b>Source</b> <small>(Use codes per Instructions.)</small>
				<b>Mass</b>	<b>Conc.</b>	<b>Mass</b>	<b>Conc.</b>	
		Fecal coliform						
		<i>E. coli</i>						
		Enterococci						
	4.5	Is chlorine used (or will it be used)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No → SKIP to Item 4.7.						
	4.6	Provide data as requested in the table below. <sup>1</sup> (See instructions for specifics.)						
		<b>Parameter or Pollutant</b>	<b>Number of Analyses</b> <small>(if actual data reported)</small>	<b>Maximum Daily Discharge</b> <small>(specify units)</small>		<b>Average Daily Discharge</b> <small>(specify units)</small>		<b>Source</b> <small>(use codes per instructions)</small>
			<b>Mass</b>	<b>Conc.</b>	<b>Mass</b>	<b>Conc.</b>		
	Total Residual Chlorine							
4.7	Is non-contact cooling water discharged (or will it be discharged)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No → SKIP to Section 5.							
4.8	Provide data as requested in the table below. <sup>1</sup> (See instructions for specifics.)							
	<b>Parameter or Pollutant</b>	<b>Number of Analyses</b> <small>(if actual data reported)</small>	<b>Maximum Daily Discharge</b> <small>(specify units)</small>		<b>Average Daily Discharge</b> <small>(specify units)</small>		<b>Source</b> <small>(use codes per instructions)</small>	
			<b>Mass</b>	<b>Conc.</b>	<b>Mass</b>	<b>Conc.</b>		
	Chemical oxygen demand (COD)							
	Total organic carbon (TOC)							

<b>SECTION 5. FLOW (40 CFR 122.21(h)(5))</b>		
<b>Flow</b>	5.1	Except for stormwater water runoff, leaks, or spills, are any of the discharges you described in Sections 1 and 3 of this application intermittent or seasonal? <input type="checkbox"/> Yes → Complete this section. <input checked="" type="checkbox"/> No → SKIP to Section 6.
	5.2	Briefly describe the frequency and duration of flow. Groundwater discharges are dependent on stormwater.

<b>SECTION 6. TREATMENT SYSTEM (40 CFR 122.21(h)(6))</b>		
<b>Treatment System</b>	6.1	Briefly describe any treatment system(s) used (or to be used). No treatment system present.

<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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**Outfall 013**

FORM 2E NPDES		<b>U.S. Environmental Protection Agency</b> <b>Application for NPDES Permit to Discharge Wastewater</b> <b>MANUFACTURING, COMMERCIAL, MINING, AND SILVICULTURAL FACILITIES WHICH DISCHARGE ONLY NONPROCESS WASTEWATER</b>
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**SECTION 1. OUTFALL LOCATION (40 CFR 122.21(h)(1))**

<b>Outfall Location</b>	1.1	Provide information on each of the facility's outfalls in the table below.							
		<b>Outfall Number</b>	<b>Receiving Water Name</b>	<b>Latitude</b>		<b>Longitude</b>			
		013	Badin Lake	35°	24'	50.78" N	80°	6'	59.26" W
				°	'	"	°	'	"
				°	'	"	°	'	"

**SECTION 2. DISCHARGE DATE (40 CFR 122.21(h)(2))**

<b>Discharge Date</b>	2.1	Are you a new or existing discharger? (Check only one response.)	
		<input type="checkbox"/> New discharger	<input checked="" type="checkbox"/> Existing discharger → SKIP to Section 3.
	2.2	Specify your anticipated discharge date:	

**SECTION 3. WASTE TYPES (40 CFR 122.21(h)(3))**

<b>Waste Types</b>	3.1	What types of wastes are currently being discharged if you are an existing discharger or will be discharged if you are a new discharger? (Check all that apply.)		
		<input type="checkbox"/> Sanitary wastes	<input checked="" type="checkbox"/> Other nonprocess wastewater (describe/explain directly below)	Groundwater and stormwater
		<input type="checkbox"/> Restaurant or cafeteria waste		
		<input type="checkbox"/> Non-contact cooling water		
	3.2	Does the facility use cooling water additives?		
		<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No → SKIP to Section 4.	
	3.3	List the cooling water additives used and describe their composition.		
		<b>Cooling Water Additives</b> <small>(list)</small>	<b>Composition of Additives</b> <small>(if available to you)</small>	

**SECTION 4. EFFLUENT CHARACTERISTICS (40 CFR 122.21(h)(4))**

<b>Effluent Characteristics</b>	4.1	Have you completed monitoring for all parameters in the table below at each of your outfalls and attached the results to this application package?						
		<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No; a waiver has been requested from my NPDES permitting authority (attach waiver request and additional information) → SKIP to Section 5.					
	4.2	Provide data as requested in the table below. <sup>1</sup> (See instructions for specifics.)						
		<b>Parameter or Pollutant</b>	<b>Number of Analyses</b> <small>(if actual data reported)</small>	<b>Maximum Daily Discharge</b> <small>(specify units)</small>		<b>Average Daily Discharge</b> <small>(specify units)</small>	<b>Source</b> <small>(use codes per instructions)</small>	
				<b>Mass</b>	<b>Conc.</b>	<b>Mass</b>	<b>Conc.</b>	
		Biochemical oxygen demand (BOD <sub>5</sub> )	1	< 7.5 #/day	< 2 mg/L	< 7.5 #/da	< 2 mg/L	NA
		Total suspended solids (TSS)	58	16.5 #/day	22 mg/L	1.6 #/day	3.9 mg/L	NA
		Oil and grease	1	< 10 #/day	< 2.7 mg/L	< 10 #/da	< 2.7 mg	NA
		Ammonia (as N)	1	< 0.9 #/day	< 0.25 mg/L	< 0.9 #/da	< 0.25 m	NA
		Discharge flow	340	0.448 MGD				NA
	pH (report as range)	78	6.8 - 8.4 s.u.				NA	
	Temperature (winter)	1	12 C				NA	
	Temperature (summer)	1	18.3 C				NA	


<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 NCD 003 162 542		NPDES Permit Number NC0004308		Facility Name Badin Business Park, LLC		Form Approved 03/05/19 OMB No. 2040-0004		
Effluent Characteristics Continued	4.3	Is fecal coliform believed present, or is sanitary waste discharged (or will it be discharged)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No → SKIP to Item 4.5.						
	4.4	Provide data as requested in the table below. <sup>1</sup> (See instructions for specifics.)						
		<b>Parameter or Pollutant</b>	<b>Number of Analyses</b> (if actual data reported)	<b>Maximum Daily Discharge</b> (specify units)		<b>Average Daily Discharge</b> (specify units)		<b>Source</b> (Use codes per Instructions.)
				<b>Mass</b>	<b>Conc.</b>	<b>Mass</b>	<b>Conc.</b>	
		Fecal coliform						
		<i>E. coli</i>						
		Enterococci						
	4.5	Is chlorine used (or will it be used)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No → SKIP to Item 4.7.						
	4.6	Provide data as requested in the table below. <sup>1</sup> (See instructions for specifics.)						
		<b>Parameter or Pollutant</b>	<b>Number of Analyses</b> (if actual data reported)	<b>Maximum Daily Discharge</b> (specify units)		<b>Average Daily Discharge</b> (specify units)		<b>Source</b> (use codes per instructions)
			<b>Mass</b>	<b>Conc.</b>	<b>Mass</b>	<b>Conc.</b>		
	Total Residual Chlorine							
4.7	Is non-contact cooling water discharged (or will it be discharged)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No → SKIP to Section 5.							
4.8	Provide data as requested in the table below. <sup>1</sup> (See instructions for specifics.)							
	<b>Parameter or Pollutant</b>	<b>Number of Analyses</b> (if actual data reported)	<b>Maximum Daily Discharge</b> (specify units)		<b>Average Daily Discharge</b> (specify units)		<b>Source</b> (use codes per instructions)	
			<b>Mass</b>	<b>Conc.</b>	<b>Mass</b>	<b>Conc.</b>		
	Chemical oxygen demand (COD)							
	Total organic carbon (TOC)							
<b>SECTION 5. FLOW (40 CFR 122.21(h)(5))</b>								
Flow	5.1	Except for stormwater water runoff, leaks, or spills, are any of the discharges you described in Sections 1 and 3 of this application intermittent or seasonal? <input type="checkbox"/> Yes → Complete this section. <input checked="" type="checkbox"/> No → SKIP to Section 6.						
	5.2	Briefly describe the frequency and duration of flow. Groundwater discharges are dependent on stormwater.						
<b>SECTION 6. TREATMENT SYSTEM (40 CFR 122.21(h)(6))</b>								
Treatment System	6.1	Briefly describe any treatment system(s) used (or to be used). No treatment system present.						

<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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**Outfall 019**

FORM 2E NPDES		<b>U.S. Environmental Protection Agency</b> <b>Application for NPDES Permit to Discharge Wastewater</b> <b>MANUFACTURING, COMMERCIAL, MINING, AND SILVICULTURAL FACILITIES WHICH</b> <b>DISCHARGE ONLY NONPROCESS WASTEWATER</b>
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**SECTION 1. OUTFALL LOCATION (40 CFR 122.21(h)(1))**

<b>Outfall Location</b>	1.1	Provide information on each of the facility's outfalls in the table below.							
		<b>Outfall Number</b>	<b>Receiving Water Name</b>	<b>Latitude</b>		<b>Longitude</b>			
		019	Badin Lake	35°	24'	46.88" N	80°	6'	16.53" W
				°	'	"	°	'	"
				°	'	"	°	'	"

**SECTION 2. DISCHARGE DATE (40 CFR 122.21(h)(2))**

<b>Discharge Date</b>	2.1	Are you a new or existing discharger? (Check only one response.)	
		<input type="checkbox"/> New discharger	<input checked="" type="checkbox"/> Existing discharger → SKIP to Section 3.
	2.2	Specify your anticipated discharge date:	

**SECTION 3. WASTE TYPES (40 CFR 122.21(h)(3))**

<b>Waste Types</b>	3.1	What types of wastes are currently being discharged if you are an existing discharger or will be discharged if you are a new discharger? (Check all that apply.)		
		<input type="checkbox"/> Sanitary wastes	<input checked="" type="checkbox"/> Other nonprocess wastewater (describe/explain directly below)	Stormwater
		<input type="checkbox"/> Restaurant or cafeteria waste		
		<input type="checkbox"/> Non-contact cooling water		
	3.2	Does the facility use cooling water additives?		
		<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No → SKIP to Section 4.	
	3.3	List the cooling water additives used and describe their composition.		
		<b>Cooling Water Additives</b> (list)	<b>Composition of Additives</b> (if available to you)	

**SECTION 4. EFFLUENT CHARACTERISTICS (40 CFR 122.21(h)(4))**

<b>Effluent Characteristics</b>	4.1	Have you completed monitoring for all parameters in the table below at each of your outfalls and attached the results to this application package?						
		<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No; a waiver has been requested from my NPDES permitting authority (attach waiver request and additional information) → SKIP to Section 5.					
	4.2	Provide data as requested in the table below. <sup>1</sup> (See instructions for specifics.)						
		<b>Parameter or Pollutant</b>	<b>Number of Analyses</b> (if actual data reported)	<b>Maximum Daily Discharge</b> (specify units)		<b>Average Daily Discharge</b> (specify units)	<b>Source</b> (use codes per instructions)	
				<b>Mass</b>	<b>Conc.</b>	<b>Mass</b>	<b>Conc.</b>	
		Biochemical oxygen demand (BOD <sub>5</sub> )					NA	
		Total suspended solids (TSS)	2	0.31 #/day	13 mg/L	0.18 #/da	11 mg/L	NA
		Oil and grease					NA	
		Ammonia (as N)					NA	
		Discharge flow	178	0.0036 MGD			NA	
	pH (report as range)	2	7.1 - 7.7 s.u.			NA		
	Temperature (winter)					NA		
	Temperature (summer)					NA		

<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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Effluent Characteristics Continued	4.3	Is fecal coliform believed present, or is sanitary waste discharged (or will it be discharged)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No → SKIP to Item 4.5.						
	4.4	Provide data as requested in the table below. <sup>1</sup> (See instructions for specifics.)						
		<b>Parameter or Pollutant</b>	<b>Number of Analyses</b> (if actual data reported)	<b>Maximum Daily Discharge</b> (specify units)		<b>Average Daily Discharge</b> (specify units)		<b>Source</b> (Use codes per Instructions.)
				Mass	Conc.	Mass	Conc.	
		Fecal coliform						
		<i>E. coli</i>						
		Enterococci						
	4.5	Is chlorine used (or will it be used)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No → SKIP to Item 4.7.						
	4.6	Provide data as requested in the table below. <sup>1</sup> (See instructions for specifics.)						
		<b>Parameter or Pollutant</b>	<b>Number of Analyses</b> (if actual data reported)	<b>Maximum Daily Discharge</b> (specify units)		<b>Average Daily Discharge</b> (specify units)		<b>Source</b> (use codes per instructions)
			Mass	Conc.	Mass	Conc.		
	Total Residual Chlorine							
4.7	Is non-contact cooling water discharged (or will it be discharged)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No → SKIP to Section 5.							
4.8	Provide data as requested in the table below. <sup>1</sup> (See instructions for specifics.)							
	<b>Parameter or Pollutant</b>	<b>Number of Analyses</b> (if actual data reported)	<b>Maximum Daily Discharge</b> (specify units)		<b>Average Daily Discharge</b> (specify units)		<b>Source</b> (use codes per instructions)	
			Mass	Conc.	Mass	Conc.		
	Chemical oxygen demand (COD)							
	Total organic carbon (TOC)							
<b>SECTION 5. FLOW (40 CFR 122.21(h)(5))</b>								
Flow	5.1	Except for stormwater water runoff, leaks, or spills, are any of the discharges you described in Sections 1 and 3 of this application intermittent or seasonal? <input type="checkbox"/> Yes → Complete this section. <input checked="" type="checkbox"/> No → SKIP to Section 6.						
	5.2	Briefly describe the frequency and duration of flow.						
<b>SECTION 6. TREATMENT SYSTEM (40 CFR 122.21(h)(6))</b>								
Treatment System	6.1	Briefly describe any treatment system(s) used (or to be used). No treatment system present.						

<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 Form 2F**

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**Outfall 002**



EPA Identification Number NCD 003 162 542	NPDES Permit Number NC0004308	Facility Name Badin Business Park, LLC	Outfall Number 002
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**TABLE A. CONVENTIONAL AND NON CONVENTIONAL PARAMETERS (40 CFR 122.26(c)(1)(i)(E)(3))<sup>1</sup>**

You must provide the results of at least one analysis for every pollutant in this table. Complete one table for each outfall. See instructions for additional details and requirements.

Pollutant or Parameter	Maximum Daily Discharge (specify units)		Average Daily Discharge (specify units)		Number of Storm Events Sampled	Source of Information (new source/new dischargers only; use codes in instructions)
	Grab Sample Taken During First 30 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 30 Minutes	Flow-Weighted Composite		
1. Oil and grease	< 2.9 mg/L		< 2.9 mg/L		1	NA
2. Biochemical oxygen demand (BOD <sub>5</sub> )	< 2 mg/L	NA	< 2 mg/L	NA	1	NA
3. Chemical oxygen demand (COD)	12 mg/L	NA	< 2 mg/L	NA	6	NA
4. Total suspended solids (TSS)	5.2 mg/L	NA	2.1 mg/L	NA	6	NA
5. Total phosphorus	< 0.10 mg/L	NA	< 0.10 mg/L	NA	1	NA
6. Total Kjeldahl nitrogen (TKN)	0.25 mg/L	NA	0.25 mg/L	NA	1	NA
7. Total nitrogen (as N)	0.41 mg/L	NA	0.41 mg/L	NA	1	NA
8. pH (minimum)	6.9 s.u.		6.9 s.u.		6	NA
pH (maximum)	8.1 s.u.		8.1 s.u.		6	NA

<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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**TABLE B. CERTAIN CONVENTIONAL AND NON CONVENTIONAL POLLUTANTS (40 CFR 122.26(c)(1)(E)(4) and 40 CFR 122.21(g)(7)(vi)(A))<sup>1</sup>**

List each pollutant that is limited in an effluent limitation guideline (ELG) that the facility is subject to or any pollutant listed in the facility's NPDES permit for its process wastewater (if the facility is operating under an existing NPDES permit). Complete one table for each outfall. See the instructions for additional details and requirements.

Pollutant and CAS Number (if available)	Maximum Daily Discharge (specify units)		Average Daily Discharge (specify units)		Number of Storm Events Sampled	Source of Information (new source/new dischargers only; use codes in instructions)
	Grab Sample Taken During First 30 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 30 Minutes	Flow-Weighted Composite		
Fluoride	2.5 mg/L	NA	0.7 mg/L	NA	6	NA
Cyanide, Total	78 ug/L	NA	< 15.6 ug/L	NA	6	NA
Aluminum, Total	0.25 mg/L	NA	0.134 mg/L	NA	6	NA

<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 NCD 003 162 542	NPDES Permit Number NC0004308	Facility name Badin Business Park, LLC	Outfall Number 002
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**TABLE D. STORM EVENT INFORMATION (40 CFR 122.26(c)(1)(i)(E)(6))**

Provide data for the storm event(s) that resulted in the maximum daily discharges for the flow-weighted composite sample.

Date of Storm Event	Duration of Storm Event (in hours)	Total Rainfall During Storm Event (in inches)	Number of Hours Between Beginning of Storm Measured and End of Previous Measurable Rain Event	Maximum Flow Rate During Rain Event (in gpm or specify units)	Total Flow from Rain Event (in gallons or specify units)
	NA	NA	NA	NA	NA

Provide a description of the method of flow measurement or estimate.

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**Outfall 004**



EPA Identification Number NCD 003 162 542	NPDES Permit Number NC0004308	Facility Name Badin Business Park, LLC	Outfall Number 004
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**TABLE A. CONVENTIONAL AND NON CONVENTIONAL PARAMETERS (40 CFR 122.26(c)(1)(i)(E)(3))<sup>1</sup>**

You must provide the results of at least one analysis for every pollutant in this table. Complete one table for each outfall. See instructions for additional details and requirements.

Pollutant or Parameter	Maximum Daily Discharge (specify units)		Average Daily Discharge (specify units)		Number of Storm Events Sampled	Source of Information (new source/new dischargers only; use codes in instructions)
	Grab Sample Taken During First 30 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 30 Minutes	Flow-Weighted Composite		
1. Oil and grease	< 2.7 mg/L		< 2.7 mg/L		1	NA
2. Biochemical oxygen demand (BOD <sub>5</sub> )	< 2.0 mg/L	NA	< 2.0 mg/L	NA	1	NA
3. Chemical oxygen demand (COD)	0 mg/L	NA	0 mg/L	NA	6	NA
4. Total suspended solids (TSS)	1.8 mg/L	NA	< 0.5 mg/L	NA	6	NA
5. Total phosphorus	< 0.10 mg/L	NA	< 0.10 mg/L	NA	1	NA
6. Total Kjeldahl nitrogen (TKN)	0.24 mg/L	NA	0.24 mg/L	NA	1	NA
7. Total nitrogen (as N)	0.36 mg/L	NA	0.36 mg/L	NA	1	NA
8. pH (minimum)	7.1 s.u.		7.1 s.u.		6	NA
pH (maximum)	7.9 s.u.		7.9 s.u.		6	NA

<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 NCD 003 162 542	NPDES Permit Number NC0004308	Facility Name Badin Business Park, LLC	Outfall Number 004
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**TABLE C. TOXIC POLLUTANTS, CERTAIN HAZARDOUS SUBSTANCES, AND ASBESTOS (40 CFR 122.26(c)(1)(i)(E)(4) and 40 CFR 122.21(g)(7)(vi)(B) and (vii))<sup>1</sup>**

List each pollutant shown in Exhibits 2F-2, 2F-3, and 2F-4 that you know or have reason to believe is present. Complete one table for each outfall. See the instructions for additional details and requirements.

Pollutant and CAS Number (if available)	Maximum Daily Discharge (specify units)		Average Daily Discharge (specify units)		Number of Storm Events Sampled	Source of Information (new source/new dischargers only; use codes in instructions)
	Grab Sample Taken During First 30 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 30 Minutes	Flow-Weighted Composite		

<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 NCD 003 162 542	NPDES Permit Number NC0004308	Facility name Badin Business Park, LLC	Outfall Number 004
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**TABLE D. STORM EVENT INFORMATION (40 CFR 122.26(c)(1)(i)(E)(6))**

Provide data for the storm event(s) that resulted in the maximum daily discharges for the flow-weighted composite sample.

Date of Storm Event	Duration of Storm Event (in hours)	Total Rainfall During Storm Event (in inches)	Number of Hours Between Beginning of Storm Measured and End of Previous Measurable Rain Event	Maximum Flow Rate During Rain Event (in gpm or specify units)	Total Flow from Rain Event (in gallons or specify units)
	NA	NA	NA	NA	NA

Provide a description of the method of flow measurement or estimate.

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**Outfall 005**



EPA Identification Number NCD 003 162 542	NPDES Permit Number NC0004308	Facility Name Badin Business Park, LLC	Outfall Number 005
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**TABLE A. CONVENTIONAL AND NON CONVENTIONAL PARAMETERS (40 CFR 122.26(c)(1)(i)(E)(3))<sup>1</sup>**

You must provide the results of at least one analysis for every pollutant in this table. Complete one table for each outfall. See instructions for additional details and requirements.

Pollutant or Parameter	Maximum Daily Discharge (specify units)		Average Daily Discharge (specify units)		Number of Storm Events Sampled	Source of Information (new source/new dischargers only; use codes in instructions)
	Grab Sample Taken During First 30 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 30 Minutes	Flow-Weighted Composite		
1. Oil and grease	< 2.6 mg/L		< 2.6 mg/L		1	NA
2. Biochemical oxygen demand (BOD <sub>5</sub> )	4.0 mg/L	NA	4.0 mg/L	NA	1	NA
3. Chemical oxygen demand (COD)	< 10 mg/L	NA	< 10 mg/L	NA	1	NA
4. Total suspended solids (TSS)	5.0 mg/L	NA	5.0 mg/L	NA	1	NA
5. Total phosphorus	< 0.10 mg/L	NA	< 0.10 mg/L	NA	1	NA
6. Total Kjeldahl nitrogen (TKN)	0.41 mg/L	NA	0.41 mg/L	NA	1	NA
7. Total nitrogen (as N)	0.68 mg/L	NA	0.68 mg/L	NA	1	NA
8. pH (minimum)	6.5 s.u.		6.5 s.u.		77	NA
pH (maximum)	8.2 s.u.		8.2 s.u.		77	NA

<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 NCD 003 162 542	NPDES Permit Number NC0004308	Facility Name Badin Business Park, LLC	Outfall Number 005
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**TABLE B. CERTAIN CONVENTIONAL AND NON CONVENTIONAL POLLUTANTS (40 CFR 122.26(c)(1)(E)(4) and 40 CFR 122.21(g)(7)(vi)(A))<sup>1</sup>**

List each pollutant that is limited in an effluent limitation guideline (ELG) that the facility is subject to or any pollutant listed in the facility's NPDES permit for its process wastewater (if the facility is operating under an existing NPDES permit). Complete one table for each outfall. See the instructions for additional details and requirements.

Pollutant and CAS Number (if available)	Maximum Daily Discharge (specify units)		Average Daily Discharge (specify units)		Number of Storm Events Sampled	Source of Information (new source/new dischargers only; use codes in instructions)
	Grab Sample Taken During First 30 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 30 Minutes	Flow-Weighted Composite		
Fluoride	0.58 mg/L	NA	0.58 mg/L	NA	1	NA
Cyanide, Total	0.028 mg/L	NA	0.028 mg/L	NA	1	NA
Aluminum, Total	0.7 mg/L	NA	0.7 mg/L	NA	1	NA

<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 NCD 003 162 542	NPDES Permit Number NC0004308	Facility name Badin Business Park, LLC	Outfall Number 005
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**TABLE D. STORM EVENT INFORMATION (40 CFR 122.26(c)(1)(i)(E)(6))**

Provide data for the storm event(s) that resulted in the maximum daily discharges for the flow-weighted composite sample.

Date of Storm Event	Duration of Storm Event (in hours)	Total Rainfall During Storm Event (in inches)	Number of Hours Between Beginning of Storm Measured and End of Previous Measurable Rain Event	Maximum Flow Rate During Rain Event (in gpm or specify units)	Total Flow from Rain Event (in gallons or specify units)
	NA	NA	NA	NA	NA

Provide a description of the method of flow measurement or estimate.

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**Outfall 012**



EPA Identification Number NCD 003 162 542	NPDES Permit Number NC0004308	Facility Name Badin Business Park, LLC	Outfall Number 012
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**TABLE A. CONVENTIONAL AND NON CONVENTIONAL PARAMETERS (40 CFR 122.26(c)(1)(i)(E)(3))<sup>1</sup>**

You must provide the results of at least one analysis for every pollutant in this table. Complete one table for each outfall. See instructions for additional details and requirements.

Pollutant or Parameter	Maximum Daily Discharge (specify units)		Average Daily Discharge (specify units)		Number of Storm Events Sampled	Source of Information (new source/new dischargers only; use codes in instructions)
	Grab Sample Taken During First 30 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 30 Minutes	Flow-Weighted Composite		
1. Oil and grease	< 4.8 mg/L		< 4.8 mg/L		1	NA
2. Biochemical oxygen demand (BOD <sub>5</sub> )	6.4 mg/L	NA	6.4 mg/L	NA	1	NA
3. Chemical oxygen demand (COD)	< 100 mg/L	NA	< 100 mg/L	NA	1	NA
4. Total suspended solids (TSS)	6.2 mg/L	NA	6.2 mg/L	NA	1	NA
5. Total phosphorus	< 0.10 mg/L	NA	< 0.10 mg/L	NA	1	NA
6. Total Kjeldahl nitrogen (TKN)	1.7 mg/L	NA	1.7 mg/L	NA	1	NA
7. Total nitrogen (as N)	1.9 mg/L	NA	1.9 mg/L	NA	1	NA
8. pH (minimum)	6.2 s.u.		6.2 s.u.		65	NA
pH (maximum)	8.0 s.u.		8.0 s.u.		65	NA

<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 NCD 003 162 542	NPDES Permit Number NC0004308	Facility name Badin Business Park, LLC	Outfall Number 012
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**TABLE D. STORM EVENT INFORMATION (40 CFR 122.26(c)(1)(i)(E)(6))**

Provide data for the storm event(s) that resulted in the maximum daily discharges for the flow-weighted composite sample.

Date of Storm Event	Duration of Storm Event (in hours)	Total Rainfall During Storm Event (in inches)	Number of Hours Between Beginning of Storm Measured and End of Previous Measurable Rain Event	Maximum Flow Rate During Rain Event (in gpm or specify units)	Total Flow from Rain Event (in gallons or specify units)
	NA	NA	NA	NA	NA

Provide a description of the method of flow measurement or estimate.

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**Outfall 013**



EPA Identification Number NCD 003 162 542	NPDES Permit Number NC0004308	Facility Name Badin Business Park, LLC	Outfall Number 013
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**TABLE A. CONVENTIONAL AND NON CONVENTIONAL PARAMETERS (40 CFR 122.26(c)(1)(i)(E)(3))<sup>1</sup>**

You must provide the results of at least one analysis for every pollutant in this table. Complete one table for each outfall. See instructions for additional details and requirements.

Pollutant or Parameter	Maximum Daily Discharge (specify units)		Average Daily Discharge (specify units)		Number of Storm Events Sampled	Source of Information (new source/new dischargers only; use codes in instructions)
	Grab Sample Taken During First 30 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 30 Minutes	Flow-Weighted Composite		
1. Oil and grease	< 4.8 mg/L		< 4.8 mg/L		1	NA
2. Biochemical oxygen demand (BOD <sub>5</sub> )	3.3 mg/L	NA	3.3 mg/L	NA	1	NA
3. Chemical oxygen demand (COD)	32 mg/L	NA	32 mg/L	NA	1	NA
4. Total suspended solids (TSS)	23 mg/L	NA	23 mg/L	NA	1	NA
5. Total phosphorus	< 0.10 mg/L	NA	< 0.10 mg/L	NA	1	NA
6. Total Kjeldahl nitrogen (TKN)	0.65 mg/L	NA	0.65 mg/L	NA	1	NA
7. Total nitrogen (as N)	1.1 mg/L	NA	1.1 mg/L	NA	1	NA
8. pH (minimum)	6.8 s.u.		6.8 s.u.		78	NA
	8.4 s.u.		8.4 s.u.			

<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 NCD 003 162 542	NPDES Permit Number NC0004308	Facility name Badin Business Park, LLC	Outfall Number 013
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**TABLE D. STORM EVENT INFORMATION (40 CFR 122.26(c)(1)(i)(E)(6))**

Provide data for the storm event(s) that resulted in the maximum daily discharges for the flow-weighted composite sample.

Date of Storm Event	Duration of Storm Event (in hours)	Total Rainfall During Storm Event (in inches)	Number of Hours Between Beginning of Storm Measured and End of Previous Measurable Rain Event	Maximum Flow Rate During Rain Event (in gpm or specify units)	Total Flow from Rain Event (in gallons or specify units)
	NA	NA	NA	NA	NA

Provide a description of the method of flow measurement or estimate.

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**Outfall 017**



EPA Identification Number NCD 003 162 542	NPDES Permit Number NC0004308	Facility Name Badin Business Park, LLC	Outfall Number 017
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**TABLE A. CONVENTIONAL AND NON CONVENTIONAL PARAMETERS (40 CFR 122.26(c)(1)(i)(E)(3))<sup>1</sup>**

You must provide the results of at least one analysis for every pollutant in this table. Complete one table for each outfall. See instructions for additional details and requirements.

Pollutant or Parameter	Maximum Daily Discharge (specify units)		Average Daily Discharge (specify units)		Number of Storm Events Sampled	Source of Information (new source/new dischargers only; use codes in instructions)
	Grab Sample Taken During First 30 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 30 Minutes	Flow-Weighted Composite		
1. Oil and grease	< 2.6 mg/L		< 2.6 mg/L		1	NA
2. Biochemical oxygen demand (BOD <sub>5</sub> )	4.0 mg/L	NA	4.0 mg/L	NA	1	NA
3. Chemical oxygen demand (COD)	92 mg/L	NA	40 mg/L	NA	6	NA
4. Total suspended solids (TSS)	27 mg/L	NA	< 16 mg/L	NA	6	NA
5. Total phosphorus	0.14 mg/L	NA	0.14 mg/L	NA	1	NA
6. Total Kjeldahl nitrogen (TKN)	1.4 mg/L	NA	1.4 mg/L	NA	1	NA
7. Total nitrogen (as N)	1.5 mg/L	NA	1.5 mg/L	NA	1	NA
8. pH (minimum)	7.8 s.u.		7.8 s.u.		1	NA
pH (maximum)	7.8 s.u.		7.8 s.u.		1	NA

<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 NCD 003 162 542	NPDES Permit Number NC0004308	Facility name Badin Business Park, LLC	Outfall Number 017
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**TABLE D. STORM EVENT INFORMATION (40 CFR 122.26(c)(1)(i)(E)(6))**

Provide data for the storm event(s) that resulted in the maximum daily discharges for the flow-weighted composite sample.

Date of Storm Event	Duration of Storm Event (in hours)	Total Rainfall During Storm Event (in inches)	Number of Hours Between Beginning of Storm Measured and End of Previous Measurable Rain Event	Maximum Flow Rate During Rain Event (in gpm or specify units)	Total Flow from Rain Event (in gallons or specify units)
	NA	NA	NA	NA	NA

Provide a description of the method of flow measurement or estimate.

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**Outfall 018**



EPA Identification Number NCD 003 162 542	NPDES Permit Number NC0004308	Facility Name Badin Business Park, LLC	Outfall Number 018
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**TABLE A. CONVENTIONAL AND NON CONVENTIONAL PARAMETERS (40 CFR 122.26(c)(1)(i)(E)(3))<sup>1</sup>**

You must provide the results of at least one analysis for every pollutant in this table. Complete one table for each outfall. See instructions for additional details and requirements.

Pollutant or Parameter	Maximum Daily Discharge (specify units)		Average Daily Discharge (specify units)		Number of Storm Events Sampled	Source of Information (new source/new dischargers only; use codes in instructions)
	Grab Sample Taken During First 30 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 30 Minutes	Flow-Weighted Composite		
1. Oil and grease	< 4.7 mg/L		< 4.7 mg/L		1	NA
2. Biochemical oxygen demand (BOD <sub>5</sub> )	4.0 mg/L	NA	4.0 mg/L	NA	1	NA
3. Chemical oxygen demand (COD)	34 mg/L	NA	26 mg/L	NA	6	NA
4. Total suspended solids (TSS)	45 mg/L	NA	< 23.1 mg/L	NA	6	NA
5. Total phosphorus	0.11 mg/L	NA	0.11 mg/L	NA	1	NA
6. Total Kjeldahl nitrogen (TKN)	1.1 mg/L	NA	1.1 mg/L	NA	1	NA
7. Total nitrogen (as N)	1.2 mg/L	NA	1.2 mg/L	NA	1	NA
8. pH (minimum)	7.3 s.u.		7.3 s.u.		1	NA
pH (maximum)	7.3 s.u.		7.3 s.u.		1	NA

<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 NCD 003 162 542	NPDES Permit Number NC0004308	Facility name Badin Business Park, LLC	Outfall Number 018
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**TABLE D. STORM EVENT INFORMATION (40 CFR 122.26(c)(1)(i)(E)(6))**

Provide data for the storm event(s) that resulted in the maximum daily discharges for the flow-weighted composite sample.

Date of Storm Event	Duration of Storm Event (in hours)	Total Rainfall During Storm Event (in inches)	Number of Hours Between Beginning of Storm Measured and End of Previous Measurable Rain Event	Maximum Flow Rate During Rain Event (in gpm or specify units)	Total Flow from Rain Event (in gallons or specify units)
	NA	NA	NA	NA	NA

Provide a description of the method of flow measurement or estimate.

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**Outfall 019**



EPA Identification Number NCD 003 162 542	NPDES Permit Number NC0004308	Facility Name Badin Business Park, LLC	Outfall Number 019
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**TABLE A. CONVENTIONAL AND NON CONVENTIONAL PARAMETERS (40 CFR 122.26(c)(1)(i)(E)(3))<sup>1</sup>**

You must provide the results of at least one analysis for every pollutant in this table. Complete one table for each outfall. See instructions for additional details and requirements.

Pollutant or Parameter	Maximum Daily Discharge (specify units)		Average Daily Discharge (specify units)		Number of Storm Events Sampled	Source of Information (new source/new dischargers only; use codes in instructions)
	Grab Sample Taken During First 30 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 30 Minutes	Flow-Weighted Composite		
1. Oil and grease	< 2.6 mg/L		< 2.6 mg/L		1	NA
2. Biochemical oxygen demand (BOD <sub>5</sub> )	9.9 mg/L	NA	9.9 mg/L	NA	1	NA
3. Chemical oxygen demand (COD)	24 mg/L	NA	24 mg/L	NA	1	NA
4. Total suspended solids (TSS)	8.9 mg/L	NA	8.9 mg/L	NA	1	NA
5. Total phosphorus	< 0.2 mg/L	NA	< 0.2 mg/L	NA	1	NA
6. Total Kjeldahl nitrogen (TKN)	0.54 mg/L	NA	0.54 mg/L	NA	1	NA
7. Total nitrogen (as N)	0.77 mg/L	NA	0.77 mg/L	NA	1	NA
8. pH (minimum)	7.1 s.u.		7.1 s.u.		2	NA
	7.7 s.u.		7.1 s.u.		2	NA

<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 NCD 003 162 542	NPDES Permit Number NC0004308	Facility name Badin Business Park, LLC	Outfall Number 019
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**TABLE D. STORM EVENT INFORMATION (40 CFR 122.26(c)(1)(i)(E)(6))**

Provide data for the storm event(s) that resulted in the maximum daily discharges for the flow-weighted composite sample.

Date of Storm Event	Duration of Storm Event (in hours)	Total Rainfall During Storm Event (in inches)	Number of Hours Between Beginning of Storm Measured and End of Previous Measurable Rain Event	Maximum Flow Rate During Rain Event (in gpm or specify units)	Total Flow from Rain Event (in gallons or specify units)
	NA	NA	NA	NA	NA

Provide a description of the method of flow measurement or estimate.

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**Outfall 020**



EPA Identification Number NCD 003 162 542	NPDES Permit Number NC0004308	Facility Name Badin Business Park, LLC	Outfall Number 020
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**TABLE A. CONVENTIONAL AND NON CONVENTIONAL PARAMETERS (40 CFR 122.26(c)(1)(i)(E)(3))<sup>1</sup>**

You must provide the results of at least one analysis for every pollutant in this table. Complete one table for each outfall. See instructions for additional details and requirements.

Pollutant or Parameter	Maximum Daily Discharge (specify units)		Average Daily Discharge (specify units)		Number of Storm Events Sampled	Source of Information (new source/new dischargers only; use codes in instructions)
	Grab Sample Taken During First 30 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 30 Minutes	Flow-Weighted Composite		
1. Oil and grease	< 4.8 mg/L		< 4.8 mg/L		1	NA
2. Biochemical oxygen demand (BOD <sub>5</sub> )	4.6 mg/L	NA	4.6 mg/L	NA	1	NA
3. Chemical oxygen demand (COD)	81 mg/L	NA	< 33 mg/L	NA	6	NA
4. Total suspended solids (TSS)	8.1 mg/L	NA	< 3.5 mg/L	NA	6	NA
5. Total phosphorus	0.11 mg/L	NA	0.11 mg/L	NA	1	NA
6. Total Kjeldahl nitrogen (TKN)	1.0 mg/L	NA	1.0 mg/L	NA	1	NA
7. Total nitrogen (as N)	1.9 mg/L	NA	1.9 mg/L	NA	1	NA
8. pH (minimum)	7.5 s.u.		7.5 s.u.		1	NA
pH (maximum)	7.5 s.u.		7.5 s.u.		1	NA

<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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**TABLE B. CERTAIN CONVENTIONAL AND NON CONVENTIONAL POLLUTANTS (40 CFR 122.26(c)(1)(E)(4) and 40 CFR 122.21(g)(7)(vi)(A))<sup>1</sup>**

List each pollutant that is limited in an effluent limitation guideline (ELG) that the facility is subject to or any pollutant listed in the facility's NPDES permit for its process wastewater (if the facility is operating under an existing NPDES permit). Complete one table for each outfall. See the instructions for additional details and requirements.

Pollutant and CAS Number (if available)	Maximum Daily Discharge (specify units)		Average Daily Discharge (specify units)		Number of Storm Events Sampled	Source of Information (new source/new dischargers only; use codes in instructions)
	Grab Sample Taken During First 30 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 30 Minutes	Flow-Weighted Composite		
Fluoride	0.84 mg/L	NA	0.53 mg/L	NA	6	NA
Cyanide, Total	0 ug/L	NA	0 ug/L	NA	6	NA
Aluminum, Total	0.37 mg/L	NA	< 0.062 mg/L	NA	6	NA

<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 NCD 003 162 542	NPDES Permit Number NC0004308	Facility name Badin Business Park, LLC	Outfall Number 020
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**TABLE D. STORM EVENT INFORMATION (40 CFR 122.26(c)(1)(i)(E)(6))**

Provide data for the storm event(s) that resulted in the maximum daily discharges for the flow-weighted composite sample.

Date of Storm Event	Duration of Storm Event (in hours)	Total Rainfall During Storm Event (in inches)	Number of Hours Between Beginning of Storm Measured and End of Previous Measurable Rain Event	Maximum Flow Rate During Rain Event (in gpm or specify units)	Total Flow from Rain Event (in gallons or specify units)
	NA	NA	NA	NA	NA

Provide a description of the method of flow measurement or estimate.

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**Outfall 022**



EPA Identification Number NCD 003 162 542	NPDES Permit Number NC0004308	Facility Name Badin Business Park, LLC	Outfall Number 022
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**TABLE A. CONVENTIONAL AND NON CONVENTIONAL PARAMETERS (40 CFR 122.26(c)(1)(i)(E)(3))<sup>1</sup>**

You must provide the results of at least one analysis for every pollutant in this table. Complete one table for each outfall. See instructions for additional details and requirements.

Pollutant or Parameter	Maximum Daily Discharge (specify units)		Average Daily Discharge (specify units)		Number of Storm Events Sampled	Source of Information (new source/new dischargers only; use codes in instructions)
	Grab Sample Taken During First 30 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 30 Minutes	Flow-Weighted Composite		
1. Oil and grease	< 2.6 mg/L		< 2.6 mg/L		1	NA
2. Biochemical oxygen demand (BOD <sub>5</sub> )	8.2 mg/L	NA	8.2 mg/L	NA	1	NA
3. Chemical oxygen demand (COD)	97 mg/L	NA	43.1 mg/L	NA	6	NA
4. Total suspended solids (TSS)	12 mg/L	NA	5.7 mg/L	NA	6	NA
5. Total phosphorus	0.36 mg/L	NA	0.36 mg/L	NA	1	NA
6. Total Kjeldahl nitrogen (TKN)	1.6 mg/L	NA	1.6 mg/L	NA	1	NA
7. Total nitrogen (as N)	1.7 mg/L	NA	1.7 mg/L	NA	1	NA
8. pH (minimum)	7.6 s.u.		7.6 s.u.		1	NA
pH (maximum)	7.6 s.u.		7.6 s.u.		1	NA

<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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**TABLE D. STORM EVENT INFORMATION (40 CFR 122.26(c)(1)(i)(E)(6))**

Provide data for the storm event(s) that resulted in the maximum daily discharges for the flow-weighted composite sample.

Date of Storm Event	Duration of Storm Event (in hours)	Total Rainfall During Storm Event (in inches)	Number of Hours Between Beginning of Storm Measured and End of Previous Measurable Rain Event	Maximum Flow Rate During Rain Event (in gpm or specify units)	Total Flow from Rain Event (in gallons or specify units)
	NA	NA	NA	NA	NA

Provide a description of the method of flow measurement or estimate.