

# Fact Sheet for State Waste Discharge Permit ST0501273

## SGL Composites, LLC

### Purpose of this fact sheet

This fact sheet explains and documents the decisions the Department of Ecology (Ecology) made in drafting the proposed State Waste Discharge permit for SGL Composites, LLC (SGL) that will allow discharge of wastewater to the Port of Moses Lake, Land Treatment System and City of Moses Lake, Larson Treatment Plant.

State law requires any commercial or industrial facility to obtain a permit before discharging waste or chemicals to municipal sanitary sewer collection and treatment systems.

Ecology makes the draft permit and fact sheet available for public review and comment at least 30 days before it issues the final permit to the facility operator. Copies of the fact sheet and draft permit for SGL, State Waste Discharge permit ST0501273, are available for public review and comment from December 16, 2020 until the close of business January 15, 2021. For more details on preparing and filing comments about these documents, please see **Appendix A - Public Involvement Information**.

SGL reviewed the draft permit and fact sheet for factual accuracy. Ecology corrected any errors or omissions about the facility's location, history, product type, production rate, or discharges prior to publishing this draft fact sheet for public notice.

After the public comment period closes, Ecology will summarize substantive comments and our responses to them. Ecology will include our summary and responses to comments to this fact sheet as **Appendix E - Response to Comments**, and publish it when we issue the final State Waste Discharge permit. Ecology generally will not revise the rest of the fact sheet. The full document will become part of the legal history contained in the facility's permit file.

### Summary

SGL produces continuous carbon fiber thread for use in the automotive and aerospace industries, and discharges its process wastewater to the Port of Moses Lake, Land Treatment System. Ecology issued the previous permit for this facility in August 2011 with an amendment in December 2015. The facility recently changed its name from SGL Automotive Carbon Fibers LLC to SGL Composites LLC.

The proposed permit removes the six-month average limit for total nitrogen consistent with the May 2016 Subscription Agreement between SGL and the Port of Moses Lake. Permit limits for other parameters remain the same from the permit amended in 2015.

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## I. Introduction

The legislature defined Ecology's authority and obligations for the wastewater discharge permit program in the Water Pollution Control law, chapter 90.48 RCW (Revised Code of Washington).

Ecology adopted rules describing how it exercises its authority:

- State waste discharge program (chapter 173-216 WAC)
- Submission of plans and reports for construction of wastewater facilities (chapter 173-240 WAC)

These rules require any industrial facility owner/operator to obtain a State Waste Discharge permit before discharging wastewater to state waters. This rule includes commercial or industrial discharges to sewerage systems operated by municipalities or public entities which discharge into public waters of the state. They also help define the basis for limits on each discharge and for other performance requirements imposed by the permit.

Under the State Waste Discharge permit program and in response to a complete and accepted permit application, Ecology generally prepares a draft permit and accompanying fact sheet, and makes it available for public review before final issuance. If the volume of the discharge has not changed or if the characteristics of the discharge have not changed Ecology may choose not to issue a public notice. When Ecology publishes an announcement (public notice); it tells people where they can read the draft permit, and where to send their comments, during a period of 30 days. (See **Appendix A - Public Involvement Information** for more detail about the public notice and comment procedures). After the public comment period ends, Ecology may make changes to the draft State Waste Discharge permit in response to comment(s). Ecology will summarize the responses to comments and any changes to the permit in **Appendix E**.

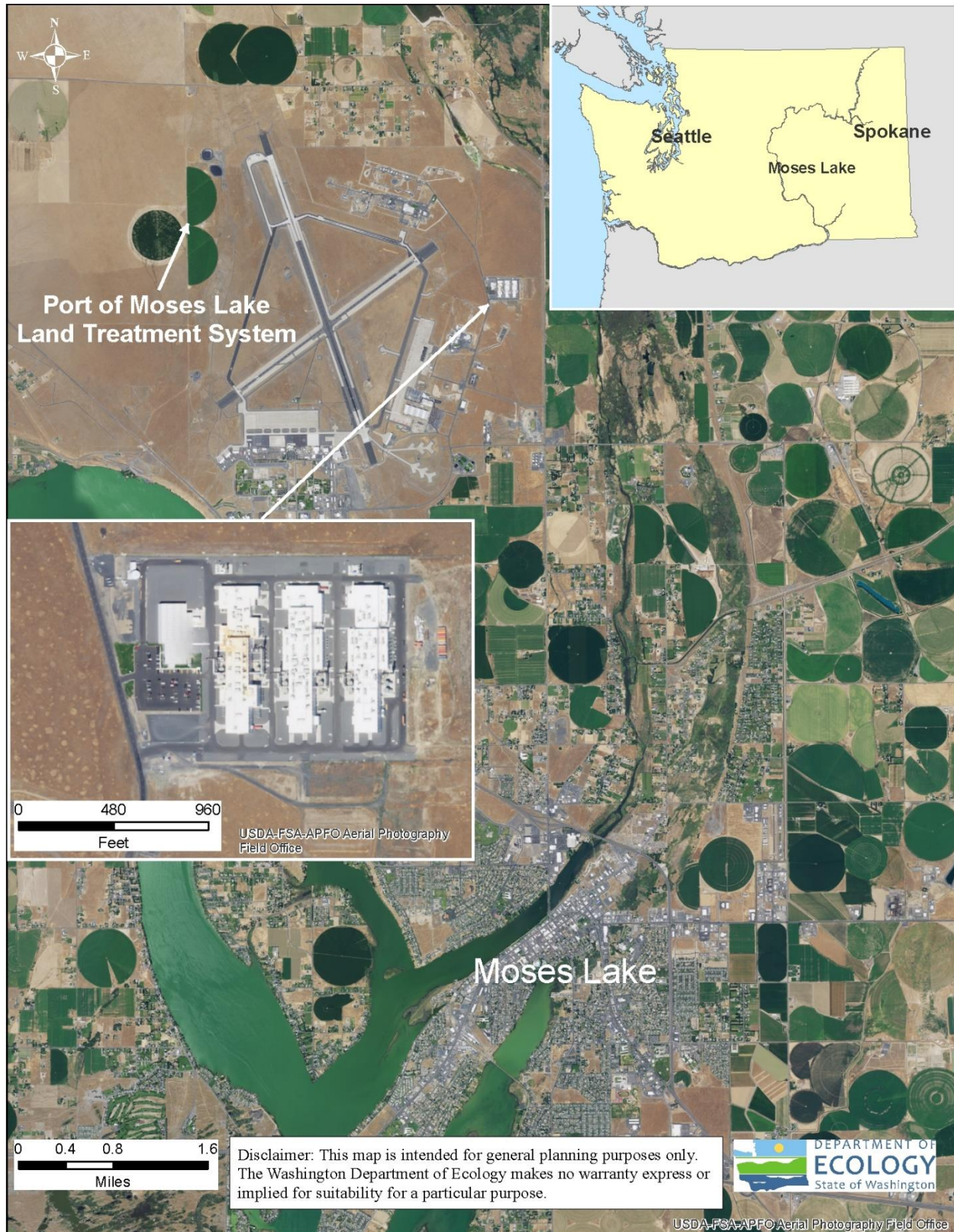
## II. Background Information

**Table 1: General Facility Information**

	Facility Information
Applicant	SGL Composites, LLC
Facility Name and Address	SGL Composites, LLC 8781 Randolph Road NE, Moses Lake, WA 98837
Contact at Facility	David Heller, Environmental Engineer (509) 762-4633
Responsible Official	Jennifer Smith, VP of Operations (509) 762-4600
Industrial User Type	Significant Industrial User
Industry Type	Carbon Fiber Manufacturing

	Facility Information
Type of Treatment by Industry	Equalization
SIC Codes	3624
NAIC Codes	335991
Facility Location (NAD83/WGS84 reference datum)	Latitude: 47.208716 Longitude: -119.287625
Treatment Plant Receiving Discharge	Port of Moses Lake, Land Treatment System City of Moses Lake, Larson Treatment Plant
Discharge Location (NAD83/WGS84 reference datum)	Latitude: 47.207283 Longitude: -119.287358
	Permit Status
Issuance Date of Previous Permit	August 5, 2011
Application for Permit Renewal Submittal Date	February 28, 2014, updated on July 22, 2015
Date of Ecology Acceptance of Application	September 9, 2015
	Inspection Status
Date of Last Non-sampling Inspection	June 5, 2014

**Figure 1: Facility Location Map**



## **A. Facility description**

### **History**

SGL Automotive Carbon Fiber, LLC (SGL ACF), originally a joint venture between carbon fiber manufacturer SGL Group and automaker BMW Group, began operation of a carbon fiber manufacturing plant in Moses Lake, near the Grant County International Airport, in 2011.

The facility produces a continuous carbon fiber thread for use in the automotive and aerospace industries.

The facility generates process wastewaters from supply water treatment, cooling water, boiler blowdown, water from surface treatment, and carbon line deluge water. The facility discharges its process wastewaters to the Port of Moses Lake's land treatment system.

Ecology issued a SWD Permit in 2011 based on a single process building housing two carbon fiber production lines. In 2014, SGL ACF submitted a revised application for the addition of two production buildings (three total) and four carbon production lines (six total). In July 2015, SGL ACF also submitted a supplemental application for treatment and discharge of carbon line deluge water.

In 2017, SGL Group announced the acquisition of BMW Group's 49% minority holding in SGL ACF and became the sole owner as SGL Composites, LLC (SGL).

### **Industrial process**

The plant receives raw polyacrylonitrile (PAN) fibers, and then processes the fibers in a series of oxidation ovens, low and high temperature carbonization furnaces, surface treatment baths, and sizing and drying steps. The facility then winds the carbon fiber strand onto bobbins for shipment. Each production line has a capacity to produce 1,500 metric tons per year.

EPA develops Effluent Guidelines as national standards for industrial wastewater discharges to surface waters and publicly owned treatment works (municipal sewage treatment plants). The manufacturing process does not fall under an industrial category regulated by the federal Effluent Guidelines.

The facility operates on a 24-hour/7 days per week schedule and currently employs about 50 workers. The City of Moses Lake supplies the facility with potable water. SGL discharges its domestic sewage to the City of Moses Lake, Larson Treatment Plant.

The SGL Moses Lake facility generates the following process wastewaters on a continuous basis:

- Condensate from onsite nitrogen plants
- Blowdown from evaporative coolers used to heat and cool production buildings
- Boiler blowdown

Intermittent wastewater streams include:

- Reverse osmosis reject water
- Cooling tower blowdown
- Surface treatment of carbon fibers
- Oven cooling
- Deluge water from extinguishing oven fires
- Fire sprinkler testing
- Floor drains in the process buildings

The facility re-uses reverse osmosis reject water, up to 150 gpd, for toilet flushing in a process building lavatory.

### **Wastewater pretreatment**

Process wastewater flows by gravity into a 5,000 gallon surge tank. Pumps then transfer the wastewater from the tank through a 4" pipe then into a 12" pipe where the wastewater flows by gravity to the Port of Moses Lake's process wastewater collection system. The 4" section of pipe includes an inline flow meter and continuous pH and conductivity monitoring probes.

SGL uses a deluge water system to extinguish oven fires on each carbon production line. For line 1, the deluge system water flows directly to the process sewer via the floor drain trench system. For line 2, SGL diverts the deluge water away from the floor drains into an underground holding tank. Once in the holding tank, the wastewater is pumped through activated carbon columns prior to discharge into the process sewer. For lines 3 through 6, the facility uses a holding tank system similar to line 2.

SGL also reuses reverse osmosis reject water for toilet flushing in the process building 1 restroom. SGL discharges the resulting domestic sewage, and all other plant domestic wastewater, to the City of Moses Lake, Larson Treatment Plant.

The previous permit allowed SGL to use process wastewater for landscape irrigation. However, the facility has not used any process wastewater for site landscape irrigation and does not plan to in the future.

## **B. Discharge location to the Port of Moses Lake**

The Port of Moses Lake operates a wastewater collection and disposal system to serve industries located within the Port district. The Port's wastewater facilities include a collection system (gravity sewer lines, a pump station, and pressurized sewer lines), lined and covered 58.5 million gallon storage lagoons, and an irrigation system (piping, pumping station, fresh waste well, irrigation sprinklers and 764 acres of irrigation land). The Port grows various commercial agricultural crops on the irrigation land to recycle nutrients and water in the industrial wastewater.



## C. Wastewater characterization

SGL reported the concentration of pollutants in the permit application and in discharge monitoring reports. The tabulated data represents the quality of the effluent discharged from March 2015 through April 2020. Table 2 summarizes these results and Appendix D contains selected time series plots of this data.

**Table 2: Wastewater Characterization**

Parameter	Units	# of Samples	Average Value	Maximum Value
Alkalinity	mg/L	196	245.1	1,008
Alkalinity	lbs/day	112	157.9	677.0
Aluminum	mg/L	4	0.063	0.107
Ammonia	mg/L	196	21.3	227.0
Ammonia	lbs/day	112	14.6	107.0
Arsenic	mg/L	5	0.060	0.180
Biochemical Oxygen Demand (BOD5)	mg/L	196	26.5	209
Biochemical Oxygen Demand (BOD5)	lbs/day	112	17.9	108.2
Barium	mg/L	4	0.032	0.047
Beryllium	mg/L	4	0.00014	0.00023
Boron	mg/L	4	0.0443	0.0614
Cadmium	mg/L	4	0.0018	0.0035
Calcium	mg/L	196	43.5	402.4
Calcium	lbs/day	112	29.8	171.2
Chloride	mg/L	196	10.6	82.9
Chloride	lbs/day	112	6.5	44.0
Chromium	mg/L	4	0.0010	0.0025
Cobalt	mg/L	4	0.0010	0.0014
Conductivity	umhos/cm	1,613	1,053.6	4,466.3
Copper	mg/L	4	0.031	0.045
Cyanide	mg/L	4	0.0012	0.0019

Parameter	Units	# of Samples	Average Value	Maximum Value
Flow	gpd	1,613	43,502.4	176,535
Fluoride	mg/L	4	0.378	0.500
Iron	mg/L	4	0.101	0.125
Lead	mg/L	4	0.0041	0.0069
Lithium	mg/L	4	0.011	0.013
Magnesium	mg/L	196	15.6	72.2
Magnesium	lbs/day	112	10.6	54.9
Manganese	mg/L	4	0.0034	0.0056
Mercury	ug/L	4	0.000055	0.0002
Molybdenum	mg/L	4	0.0016	0.0025
Nickel	mg/L	4	0.0025	0.0041
Nitrate	mg/L	196	2.3	11.2
Nitrate	lbs/day	111	1.4	4.6
Oil & Grease	mg/L	4	2.95	7
Phosphorus	mg/L	196	1.4	27.0
Phosphorus	lbs/day	112	0.8	9.5
Potassium	mg/L	196	10.8	58.5
Potassium	lbs/day	112	6.5	31.5
SAR	ratio	196	1.1	6.5
Selenium	mg/L	4	0.0590	0.1929
Silver	ug/L	4	0.0013	0.0021
Sodium	mg/L	196	36.9	181.0
Sodium	lbs/day	112	20.8	92.4
Sulfate	mg/L	196	40.9	951.0
Sulfate	lbs/day	112	22.7	157.0
Total Dissolved Solids (TDS)	mg/L	195	301.5	990.0
Total Dissolved Solids (TDS)	lbs/day	111	192.5	885.7

Parameter	Units	# of Samples	Average Value	Maximum Value
Total Kjeldahl Nitrogen (TKN)	mg/L	196	26.6	270.0
Total Kjeldahl Nitrogen (TKN)	lbs/day	112	18.9	128.5
Total Nitrogen	mg/L	196	28.8	272.4
Total Nitrogen	lbs/day	112	20.3	130.9
Vanadium	mg/L	4	0.0023	0.0070
Zinc	mg/L	4	0.0662	0.0827

Parameter	Units	# of Samples	Minimum Value	Maximum Value
pH	s.u.	1,613	5.6	10.9

#### **D. Summary of compliance with previous permit amended on December 1, 2015**

The previous permit placed effluent limits on flow, total nitrogen, pH, biochemical oxygen demand (BOD<sub>5</sub>), oil and grease, total dissolved solids, conductivity, sodium adsorption ratio, aluminum, arsenic, beryllium, boron, cadmium, chromium, cobalt, copper, total cyanide, fluoride, iron, lead, lithium, manganese, mercury, molybdenum, nickel, selenium, vanadium, and zinc.

SGL has not consistently complied with the effluent limits throughout the duration of the permit amended on December 1, 2015. Ecology assessed compliance based on its review of the facility's discharge monitoring reports (DMRs) and on inspections conducted by Ecology.

Table 3 summarizes the effluent violations and permit triggers that occurred from January 2019 through April 2020, and Appendix D contains selected time series plots of the exceedences. Permit triggers are not violations but rather when triggered require the permit holder to take an action defined in the permit.

The previous permit set limits for total nitrogen of 60 mg/L (six-month average) and 20,548 pounds (annual total) based on local limits current at the time of the December 2015 permit amendment. However, SGL and the Port of Moses Lake updated the local limits in May 2016 and removed the six-month average limit. The facility began production from their 4th carbon line in 2019. The additional ammonium bicarbonate discharge from the fourth line surface treatment baths resulted in exceedences of this six-month average permit limit.

The Permittee investigated the BOD<sub>5</sub> exceedences and believes higher values resulted from biological build-up inside sampling lines. SGL corrected the problem and daily values dropped below daily maximum limits. However, the initial high values resulted in a series of exceedences of six-month average permit limits.

The effluent limits exceedences for flow beginning in June 2019 resulted from excess once through cooling water discharged from make-up air evaporative cooling units. SGL made adjustments to the system and flows dropped below permitted levels.

**Table 3: Effluent Limit Violations**

Date	Parameter	Units	Statistical Base	Value	Max Limit	Violation
2/1/2019	BOD5	mg/L	Six Month Avg	55	40	Effluent Limit
6/1/2019	BOD5	mg/L	Single Sample	83	80	Effluent Limit
9/1/2019	BOD5	mg/L	Six Month Avg	49	40	Effluent Limit
9/1/2019	BOD5	mg/L	Single Sample	102	80	Effluent Limit
9/1/2019	BOD5	mg/L	Single Sample	103	80	Effluent Limit
10/1/2019	BOD5	mg/L	Six Month Avg	54	40	Effluent Limit
11/1/2019	BOD5	mg/L	Six Month Avg	54	40	Effluent Limit
12/1/2019	BOD5	mg/L	Six Month Avg	46	40	Effluent Limit
6/1/2019	Flow	gpd	Avg Monthly	114,333	112,500	Effluent Limit
7/1/2019	Flow	gpd	Avg Monthly	131,677	112,500	Effluent Limit
8/1/2019	Flow	gpd	Avg Monthly	124,097	112,500	Effluent Limit
9/1/2019	Flow	gpd	Avg Monthly	125,433	112,500	Effluent Limit
2/1/2019	Total N	mg/L	Six Month Avg	69.6	60	Effluent Limit
3/1/2019	Total N	mg/L	Six Month Avg	73.9	60	Effluent Limit
4/1/2019	Total N	mg/L	Six Month Avg	71.3	60	Effluent Limit
5/1/2019	Total N	mg/L	Six Month Avg	62.1	60	Effluent Limit
11/1/2019	Total N	mg/L	Six Month Avg	74	60	Effluent Limit
12/1/2019	Total N	mg/L	Six Month Avg	80	60	Effluent Limit
1/1/2020	Total N	mg/L	Six Month Avg	82.4	60	Effluent Limit
2/1/2020	Total N	mg/L	Six Month Avg	81.3	60	Effluent Limit
3/1/2020	Total N	mg/L	Six Month Avg	76.2	60	Effluent Limit
4/1/2020	Total N	mg/L	Six Month Avg	70.9	60	Effluent Limit

SGL has complied with all submittal reports required by the permit amended on December 1, 2015.

## **E. State environmental policy act (SEPA) compliance**

State law exempts the issuance, reissuance or modification of any wastewater discharge permit from the SEPA process as long as the permit contains conditions that are no less stringent than federal and state rules and regulations (RCW 43.21C.0383). The exemption applies only to existing discharges, not to new discharges.

## **III. Proposed Permit Limits**

State regulations require that Ecology base limits in a State Waste Discharge permit on the:

- Technology and treatment methods available to treat specific pollutants (technology-based). Technology-based limits are set by the EPA and published as a regulation (40 CFR 400 - 471), or Ecology develops limits on a case-by-case basis (RCW 90.48). Dischargers must treat wastewater using all known, available, reasonable methods of prevention, control, and treatment (AKART).
- Effects of the pollutants on the publicly-owned treatment works (POTW). Wastewater must not interfere with the operation of the POTW. Ecology considers local limits in developing permit limits.
- Applicable requirements of other local, state and federal laws.

Ecology applies the most stringent of these limits to each parameter of concern and further describes the proposed limits below.

The limits in this permit reflect information received in the application and from supporting reports (engineering, monitoring, etc.). Ecology evaluated the permit application and determined the limits needed to comply with the rules adopted by the state of Washington. Ecology does not develop effluent limits for all reported pollutants. Some pollutants are not treatable at the concentrations reported, are not controllable at the source, and are not listed in regulation.

Ecology does not usually develop permit limits for pollutants not reported in the permit application but may be present in the discharge. The permit does not authorize the discharge of the non-reported pollutants. During the five-year permit term, the facility's effluent discharge conditions may change from those conditions reported in the permit application. The facility must notify Ecology if significant changes occur in any constituent. Until Ecology modifies the permit to reflect additional discharge of pollutants, a permitted facility could be violating its permit.

### **A. Technology-based effluent limits**

Waste discharge permits issued by Ecology specify conditions requiring all available and reasonable methods of prevention, control, and treatment (AKART) of discharges to waters of the state (RCW 90.48).

This facility is not a categorical discharger regulated under federal effluent guidelines in 40 CFR Parts 405-471.

The state waste discharge permit regulations include restrictions and prohibitions to protect publicly-owned sewerage systems. A facility may not discharge any wastewater having a pH less than 5.0 or greater than 11.0 or having any other corrosive property capable of causing damage or hazard to structures, equipment, or personnel unless the:

- System is specifically designed to accommodate such discharge.
- Discharge is authorized by a permit (WAC 173-216-060).

Federal regulations (40 CFR 403.5b) also prohibits the discharge of pollutants which will cause corrosive structural damage to the POTW, but in no case discharges with pH lower than 5.0, unless the collection and treatment system is designed to accommodate such discharges. These rules would not apply to publicly-owned systems treating industrial wastes only; however, Ecology has applied the pH prohibition to this facility using best professional judgment.

Ecology approved the initial engineering report and addendums in March 2011 for the SGL process wastewater handling and disposal systems from one process building and two carbon fiber lines. In February 2014, SGL submitted a SWD Permit application form and engineering report for the addition of four carbon lines (six total) and two production buildings (three total). These submittals were supplemented with a March 2015 signed Subscription Agreement between SGL and the Port of Moses Lake, and a July 2015 supplemental application information and engineering report for treatment of carbon line deluge water.

Ecology determined the facility meets the minimum requirements demonstrating compliance with the AKART standard if SGL Carbon operates the treatment and disposal systems as described in the approved engineering reports.

The following permit limits are necessary to satisfy the requirement for AKART for the process wastewater discharged to the Port of Moses Lake, Land Treatment System:

- The volume of discharge given in the 2014 approved engineering report for three process buildings and six carbon fiber lines of 112,500 gpd daily average, 195,833 gpd daily maximum, and total annual quantity of 41.0625 million gallons
- The total annual loading of total dissolved solids of 301,366 pounds
- The pH limitations described above

The following permit limits are necessary to satisfy the requirement for AKART:

**Table 4: Technology-based Effluent Limits**

Parameter	Average Monthly	Maximum Daily
Flow	112,500 gpd	195,833 gpd

Parameter	Annual Total <sup>a</sup>
Flow	41.0625 million gallons
Total Dissolved Solids	301,366 pounds

Parameter	Daily Minimum	Daily Maximum
pH	5.0 standard units	11.0 standard units

<sup>a</sup> Compliance determined on rolling 12-month totals

## B. Effluent limits based on local limits

The Port of Moses Lake has codified in ordinance limits applicable to industrial wastewater discharges to its wastewater system (Resolution No. 1336, dated December 2014). These limits protect the collection and treatment system from pollutant pass-through, interference, concentrations of toxic chemicals that would impair disposal of sludges, or potentially hazardous exposure levels to workers. Ecology believes it necessary to impose limits for parameters based on the local limits established by the Port of Moses Lake. Applicable limits for this discharge include the following:

**Table 5: Effluent Limits Based on Local Limits**

Parameter	Units	6 Month Average	Maximum Daily
BOD5	mg/L	40	80
Fats, Oil, and Grease	mg/L	40	80
TDS	mg/L	1,000	2,000
Electrical Conductivity	µmhos/cm	1,600	3,130
Sodium Adsorption Ratio (SAR)	mg/L	6.0	12.0
Aluminum	mg/L	5.0	10
Arsenic	mg/L	0.1	0.2
Beryllium	mg/L	0.1	0.2
Boron	mg/L	0.35	0.7
Cadmium	mg/L	0.1	0.2
Chromium	mg/L	0.1	0.2
Cobalt	mg/L	0.05	0.1
Copper	mg/L	2.5	5.0
Fluoride	mg/L	4.0	8.0
Iron	mg/L	50	100
Lead	mg/L	1.0	2.0
Lithium	mg/L	2.0	4.0

Parameter	Units	6 Month Average	Maximum Daily
Manganese	mg/L	1.0	2.0
Mercury	mg/L	0.05	0.1
Molybdenum	mg/L	0.05	0.1
Nickel	mg/L	0.3	0.6
Selenium	mg/L	0.3	0.6
Vanadium	mg/L	0.1	0.2
Zinc	mg/L	9.0	18.0

Parameter	Daily Minimum	Daily Maximum
pH	5.0 standard units	9.0 standard units

Parameter	Annual Total <sup>a</sup>
Total Nitrogen (TKN plus Nitrate/Nitrite)	20,548 pounds

<sup>a</sup> Compliance determined on a rolling 12-month total

To further protect the Port of Moses Lake from pass-through of pollutants, Ecology believes it necessary to impose limits for the deluge water generated to extinguish oven fires. Prior to discharge to the Port of Moses Lake system, SGL will have to meet a daily maximum level for acrylonitrile of 0.07 ug/L (based on the State's ground water quality criteria in Chapter 173-200-040).

### C. Comparison of effluent limits with the previous permit amended on December 1, 2015

Table 6: Comparison of Effluent Limits

		Previous Effluent Limits	For Outfall #001	Proposed Effluent Limits	For Outfall #001
Parameter	Basis of Limit	Six Month Average	Maximum Daily	Six Month Average	Maximum Daily
Total Nitrogen, lbs/day	Local Limit	60	-	-	-
SAR, unitless	Local Limit	6	12	6	9
Remainder of Tables 4 and 5 Parameters	Technology/Local Limit	No Change		No Change	



Parameter	Basis of Limit	Daily Minimum	Daily Maximum
pH, su	Local Limit	5.0	9.0

The proposed permit removes the six-month average permit limit for total nitrogen. The May 2016 Subscription Agreement between SGL and the Port of Moses Lake includes only a total nitrogen limit based on an annual load of 20,548 pounds (unchanged from the previous permit). The proposed permit changes a typographical error for the maximum daily SAR value from 12 in the previous permit to 9.

## **IV. Monitoring Requirements**

Ecology requires monitoring, recording, and reporting (WAC 173-216-110) to verify that the treatment process functions correctly and that the discharge complies with the permit's effluent limits.

If a facility uses a contract laboratory to monitor wastewater, it must ensure that the laboratory uses the methods and meets or exceeds the method detection levels required by the permit. The permit describes when facilities may use alternative methods. It also describes what to do in certain situations when the laboratory encounters matrix effects. When a facility uses an alternative method as allowed by the permit, it must report the test method, detection level (DL), and quantitation level (QL) on the discharge monitoring report or in the required report.

### **A. Lab accreditation**

Ecology requires that facilities must use a laboratory registered or accredited under the provisions of chapter 173-50 WAC, Accreditation of Environmental Laboratories, to prepare all monitoring data (with the exception of certain parameters). SGL uses an accredited contract laboratory for sample analysis.

### **B. Wastewater monitoring**

Ecology details the proposed monitoring schedule under Special Condition S2. Specified monitoring frequencies take into account the quantity and variability of the discharge, the treatment method, past compliance, significance of pollutants, and cost of monitoring.

### **C. Effluent limits which are near detection or quantitation levels**

The water quality-based effluent concentration limits for acrylonitrile are near the limits of current analytical methods to detect or accurately quantify. The method detection level (MDL) also known as detection level (DL) is the minimum concentration of a pollutant that a laboratory can measure and report with a 99 percent confidence that its concentration is greater than zero (as determined by a specific laboratory method). The quantitation level (QL) is the level at which a laboratory can reliably report concentrations with a specified level of error. Estimated concentrations are the values between the DL and the QL. Ecology requires permitted facilities to report estimated concentrations.

When reporting maximum daily effluent concentrations, Ecology requires the facility to report “less than X” where X is the required detection level if the measured effluent concentration falls below the detection level.

## **V. Other Permit Conditions**

### **A. Reporting and recordkeeping**

Ecology based Special Condition S3 on its authority to specify any appropriate reporting and recordkeeping requirements to prevent and control waste discharges [WAC 173-216-110 and CFR 403.12 (e),(g), and (h)].

### **B. Operations and maintenance**

Ecology requires dischargers to take all reasonable steps to properly operate and maintain their wastewater treatment system in accordance with state regulations (WAC 173-240-080 and WAC 173-216-110). The facility must prepare and submit an updated operation and maintenance (O&M) manual as required by state regulation for the construction of wastewater treatment facilities (WAC 173-240-150). Implementation of the procedures in the operation and maintenance manual ensures the facility's compliance with the terms and limits in the permit.

### **C. Prohibited discharges**

Ecology prohibits certain pollutants from being discharged to the POTW. These include substances which cause pass-through or interference, pollutants which may cause damage to the POTW or harm to the POTW workers (chapter 173-216 WAC) and the discharge of designated dangerous wastes not authorized by this permit (chapter 173-303 WAC). Chapter 173-216 WAC would not apply to publicly-owned systems treating industrial wastes only, however Ecology has applied the prohibited discharge conditions to this facility using best professional judgment.

### **D. Dilution prohibited**

Ecology prohibits the facility from diluting its effluent as a partial or complete substitute for adequate treatment to achieve compliance with permit limits.

### **E. Non routine and unanticipated wastewater**

Occasionally, this facility may generate wastewater not characterized in the permit application because it is not a routine discharge and the facility did not anticipate it at the time of application. These wastes typically consist of waters used to pressure-test storage tanks or fire water systems or of leaks from drinking water systems.

The permit authorizes the discharge of non-routine and unanticipated wastewater under certain conditions. The facility must characterize these waste waters for pollutants and examine the opportunities for reuse.

Depending on the nature and extent of pollutants in this wastewater and on any opportunities for reuse, Ecology may:

- Authorize the facility to discharge the water.
- Require the facility to treat the wastewater.
- Require the facility to reuse the wastewater.

## **F. Spill plan**

This facility stores a quantity of chemicals on-site that have the potential to cause water pollution and/or interference or pass through at the receiving POTW if accidentally released. Ecology can require a facility to develop best management plans to prevent this accidental release [Section 402(a)(1) of the Federal Water Pollution Control Act (FWPCA) and RCW 90.48.080].

SGL developed a plan for preventing the accidental release of pollutants to state waters, to the receiving treatment plant, and for minimizing damages if such a spill occurs. The proposed permit requires the facility to update this plan and submit it to Ecology.

## **G. Slug discharge plan**

SGL developed a plan to minimize the potential of non-routine, noncustomary batch discharges or spills that could adversely affect the Port of Moses Lake's system. The proposed permit requires an update to the slug discharge control plan based on 40 CFR 403.8 (f)(1) (iii)(B)(6) and (f) (2)(vi). Although the federal requirements for a slug discharge control plan would not apply to a publicly-owned treatment works treating industrial waste only, Ecology used its best professional judgement in requiring this condition.

## **H. General conditions**

Ecology bases the standardized general conditions on state law and regulations. They are included in all state waste discharge permits issued by Ecology.

# **VI. Public Notification of Noncompliance**

Ecology may annually publish a list of all industrial users in significant noncompliance with Pretreatment Standards or Requirements during any of the previous four quarters in a local newspaper. Accordingly, this permit Special Condition informs the Facility that noncompliance with this permit may result in publication of the noncompliance.

## **VII. Permit Issuance Procedures**

### **A. Permit modifications**

Ecology may modify this permit to impose or change the numerical limits, if necessary to comply with changes in the pretreatment requirements, conditions in local sewer ordinances, or based on new information from sources such as inspections and effluent monitoring. It may also modify this permit to comply with new or amended state or federal regulations.

### **B. Proposed permit issuance**

This proposed permit meets all statutory requirements for authorizing a wastewater discharge, including those limits and conditions believed necessary to control toxics. Ecology proposes that the permit be issued for five years.

## VIII. References for Text and Appendices

Washington State Department of Ecology.

[Laws, Rules & Rulemaking](https://ecology.wa.gov/About-us/How-we-operate/rulemaking) (<https://ecology.wa.gov/About-us/How-we-operate/rulemaking>)

[Permit and Wastewater Related Information](https://ecology.wa.gov/Regulations-Permits/Guidance-technical-assistance/Water-quality-permits-guidance) (<https://ecology.wa.gov/Regulations-Permits/Guidance-technical-assistance/Water-quality-permits-guidance>)

[Permit Writer's Manual](https://fortress.wa.gov/ecy/publications/documents/92109.pdf), January 2015. Publication Number 92-109  
(<https://fortress.wa.gov/ecy/publications/documents/92109.pdf>)

Focus Sheet on [Developing a Solid Waste Control Plan](https://fortress.wa.gov/ecy/publications/documents/0710024.pdf) for Industrial Wastewater Discharge Permittees, February 2007. Publication Number 07-10-024.  
(<https://fortress.wa.gov/ecy/publications/documents/0710024.pdf>)

## **Appendix A - Public Involvement Information**

Ecology proposes to reissue a permit to SGL Composites, LLC (SGL). The permit includes wastewater discharge limits and other conditions. This fact sheet describes the facility and Ecology's reasons for requiring permit conditions.

Ecology will place a Public Notice of Draft on December 16, 2020 in the Columbia Basin Herald to inform the public and to invite comment on the proposed draft State Waste Discharge permit and fact sheet.

The notice:

- Tells where copies of the draft Permit and Fact Sheet are available for public evaluation (a local public library, the closest Regional or Field Office, posted on our website).
- Offers to provide the documents in an alternate format to accommodate special needs.
- Urges people to submit their comments, in writing, before the end of the Comment Period
- Tells how to request a public hearing of comments about the proposed state waste discharge permit.
- Explains the next step(s) in the permitting process.

Ecology has published a document entitled [Frequently Asked Questions about Effective Public Commenting](https://fortress.wa.gov/ecy/publications/documents/0307023.pdf), available at <https://fortress.wa.gov/ecy/publications/documents/0307023.pdf>.

For more information, call the Department of Ecology Eastern Regional Office at (509) 329-3400 or go online to the [Ecology webpage](http://www.ecy.wa.gov) at [www.ecy.wa.gov](http://www.ecy.wa.gov).

## Appendix B - Your Right to Appeal

You have a right to appeal this permit to the Pollution Control Hearing Board (PCHB) within 30 days of the date of receipt of the final permit. The appeal process is governed by chapter 43.21B RCW and chapter 371-08 WAC. "Date of receipt" is defined in RCW 43.21B.001(2) (see glossary).

To appeal you must do the following within 30 days of the date of receipt of this permit:

- File your appeal and a copy of this permit with the PCHB (see addresses below). Filing means actual receipt by the PCHB during regular business hours.
- Serve a copy of your appeal and this permit on Ecology in paper form - by mail or in person. (See addresses below.) E-mail is not accepted.

You must also comply with other applicable requirements in chapter 43.21B RCW and chapter 371-08 WAC.

### ADDRESS AND LOCATION INFORMATION

Street Addresses	Mailing Addresses
<b>Department of Ecology</b> Attn: Appeals Processing Desk 300 Desmond Drive SE Lacey, WA 98503	<b>Department of Ecology</b> Attn: Appeals Processing Desk PO Box 47608 Olympia, WA 98504-7608
<b>Pollution Control Hearings Board</b> 1111 Israel RD SW STE 301 Tumwater, WA 98501	<b>Pollution Control Hearings Board</b> PO Box 40903 Olympia, WA 98504-0903

## Appendix C - Glossary

**1-DMax or 1-day maximum temperature** -- The highest water temperature reached on any given day. This measure can be obtained using calibrated maximum/minimum thermometers or continuous monitoring probes having sampling intervals of thirty minutes or less.

**7-DADMax or 7-day average of the daily maximum temperatures** - The arithmetic average of seven consecutive measures of daily maximum temperatures. The 7-DADMax for any individual day is calculated by averaging that day's daily maximum temperature with the daily maximum temperatures of the three days prior and the three days after that date.

**Acute toxicity** - The lethal effect of a compound on an organism that occurs in a short time period, usually 48 to 96 hours.

**AKART** - The acronym for "all known, available, and reasonable methods of prevention, control and treatment." AKART is a technology-based approach to limiting pollutants from wastewater discharges, which requires an engineering judgment and an economic judgment. AKART must be applied to all wastes and contaminants prior to entry into waters of the state in accordance with RCW 90.48.010 and 520, WAC 173-200-030(2)(c)(ii), and WAC 173-216-110(1)(a).

**Alternate point of compliance** - An alternative location in the groundwater from the point of compliance where compliance with the groundwater standards is measured. It may be established in the groundwater at locations some distance from the discharge source, up to, but not exceeding the property boundary and is determined on a site specific basis following an AKART analysis. An "early warning value" must be used when an alternate point is established. An alternate point of compliance must be determined and approved in accordance with WAC 173-200-060(2).

**Ambient water quality** - The existing environmental condition of the water in a receiving water body.

**Ammonia** - Ammonia is produced by the breakdown of nitrogenous materials in wastewater. Ammonia is toxic to aquatic organisms, exerts an oxygen demand, and contributes to eutrophication. It also increases the amount of chlorine needed to disinfect wastewater.

**Annual average design flow (AADF)** - Average of the daily flow volumes anticipated to occur over a calendar year.

**Average monthly (intermittent) discharge limit** - The average of the measured values obtained over a calendar months time taking into account zero discharge days.

**Average monthly discharge limit** - The average of the measured values obtained over a calendar month's time.

**Background water quality** - The concentrations of chemical, physical, biological or radiological constituents or other characteristics in or of groundwater at a particular point in time upgradient of an activity that has not been affected by that activity, [WAC 173-200-020(3)].



Background water quality for any parameter is statistically defined as the 95% upper tolerance interval with a 95% confidence based on at least eight hydraulically upgradient water quality samples. The eight samples are collected over a period of at least one year, with no more than one sample collected during any month in a single calendar year.

**Best management practices (BMPs)** - Schedules of activities, prohibitions of practices, maintenance procedures, and other physical, structural and/or managerial practices to prevent or reduce the pollution of waters of the state. BMPs include treatment systems, operating procedures, and practices to control: plant site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage. BMPs may be further categorized as operational, source control, erosion and sediment control, and treatment BMPs.

**BOD5** - Determining the five-day Biochemical Oxygen Demand of an effluent is an indirect way of measuring the quantity of organic material present in an effluent that is utilized by bacteria. The BOD5 is used in modeling to measure the reduction of dissolved oxygen in receiving waters after effluent is discharged. Stress caused by reduced dissolved oxygen levels makes organisms less competitive and less able to sustain their species in the aquatic environment. Although BOD<sub>5</sub> is not a specific compound, it is defined as a conventional pollutant under the federal Clean Water Act.

**Bypass** - The intentional diversion of waste streams from any portion of a treatment facility.

**Categorical pretreatment standards** - National pretreatment standards specifying quantities or concentrations of pollutants or pollutant properties, which may be discharged to a POTW by existing or new industrial users in specific industrial subcategories.

**Chlorine** - A chemical used to disinfect wastewaters of pathogens harmful to human health. It is also extremely toxic to aquatic life.

**Chronic toxicity** - The effect of a compound on an organism over a relatively long time, often 1/10 of an organism's lifespan or more. Chronic toxicity can measure survival, reproduction or growth rates, or other parameters to measure the toxic effects of a compound or combination of compounds.

**Clean water act (CWA)** - The federal Water Pollution Control Act enacted by Public Law 92-500, as amended by Public Laws 95-217, 95-576, 96-483, 97-117; USC 1251 et seq.

**Compliance inspection-without sampling** - A site visit for the purpose of determining the compliance of a facility with the terms and conditions of its permit or with applicable statutes and regulations.

**Compliance inspection-with sampling** - A site visit for the purpose of determining the compliance of a facility with the terms and conditions of its permit or with applicable statutes and regulations. In addition it includes as a minimum, sampling and analysis for all parameters with limits in the permit to ascertain compliance with those limits; and, for municipal facilities, sampling of influent to ascertain compliance with the 85 percent removal requirement. Ecology may conduct additional sampling.

**Composite sample** - A mixture of grab samples collected at the same sampling point at different times, formed either by continuous sampling or by mixing discrete samples. May be "time-composite" (collected at constant time intervals) or "flow-proportional" (collected either as a constant sample volume at time intervals proportional to stream flow, or collected by increasing the volume of each aliquot as the flow increased while maintaining a constant time interval between the aliquots).

**Construction activity** - Clearing, grading, excavation, and any other activity, which disturbs the surface of the land. Such activities may include road building; construction of residential houses, office buildings, or industrial buildings; and demolition activity.

**Continuous monitoring** - Uninterrupted, unless otherwise noted in the permit.

**Critical condition** - The time during which the combination of receiving water and waste discharge conditions have the highest potential for causing toxicity in the receiving water environment. This situation usually occurs when the flow within a water body is low, thus, its ability to dilute effluent is reduced.

**Date of receipt** - This is defined in RCW 43.21B.001(2) as five business days after the date of mailing; or the date of actual receipt, when the actual receipt date can be proven by a preponderance of the evidence. The recipient's sworn affidavit or declaration indicating the date of receipt, which is unchallenged by the agency, constitutes sufficient evidence of actual receipt. The date of actual receipt, however, may not exceed forty-five days from the date of mailing.

**Detection limit** - The minimum concentration of a substance that can be measured and reported with 99 percent confidence that the pollutant concentration is above zero and is determined from analysis of a sample in a given matrix containing the pollutant.

**Dilution factor (DF)** - A measure of the amount of mixing of effluent and receiving water that occurs at the boundary of the mixing zone. Expressed as the inverse of the percent effluent fraction, for example, a dilution factor of 10 means the effluent comprises 10% by volume and the receiving water 90%.

**Distribution uniformity** - The uniformity of infiltration (or application in the case of sprinkle or trickle irrigation) throughout the field expressed as a percent relating to the average depth infiltrated in the lowest one-quarter of the area to the average depth of water infiltrated.

**Early warning value** - The concentration of a pollutant set in accordance with WAC 173-200-070 that is a percentage of an enforcement limit. It may be established in the effluent, groundwater, surface water, the vadose zone or within the treatment process. This value acts as a trigger to detect and respond to increasing contaminant concentrations prior to the degradation of a beneficial use.

**Enforcement limit** - The concentration assigned to a contaminant in the groundwater at the point of compliance for the purpose of regulation, [WAC 173-200-020(11)]. This limit assures that a groundwater criterion will not be exceeded and that background water quality will be protected.

**Engineering report** - A document that thoroughly examines the engineering and administrative aspects of a particular domestic or industrial wastewater facility. The report must contain the appropriate information required in WAC 173-240-060 or 173-240-130.

**Fecal coliform bacteria** - Fecal coliform bacteria are used as indicators of pathogenic bacteria in the effluent that are harmful to humans. Pathogenic bacteria in wastewater discharges are controlled by disinfecting the wastewater. The presence of high numbers of fecal coliform bacteria in a water body can indicate the recent release of untreated wastewater and/or the presence of animal feces.

**Grab sample** - A single sample or measurement taken at a specific time or over as short a period of time as is feasible.

**Groundwater** - Water in a saturated zone or stratum beneath the surface of land or below a surface water body.

**Industrial user** - A discharger of wastewater to the sanitary sewer that is not sanitary wastewater or is not equivalent to sanitary wastewater in character.

**Industrial wastewater** - Water or liquid-carried waste from industrial or commercial processes, as distinct from domestic wastewater. These wastes may result from any process or activity of industry, manufacture, trade or business; from the development of any natural resource; or from animal operations such as feed lots, poultry houses, or dairies. The term includes contaminated stormwater and, also, leachate from solid waste facilities.

**Interference** - A discharge which, alone or in conjunction with a discharge or discharges from other sources, both:

- Inhibits or disrupts the POTW, its treatment processes or operations, or its sludge processes, use or disposal; and
- Therefore is a cause of a violation of any requirement of the POTW's NPDES permit (including an increase in the magnitude or duration of a violation) or of the prevention of sewage sludge use or disposal in compliance with the following statutory provisions and regulations or permits issued thereunder (or more stringent State or local regulations): Section 405 of the Clean Water Act, the Solid Waste Disposal Act (SWDA) (including title II, more commonly referred to as the Resource Conservation and Recovery Act (RCRA), and including State regulations contained in any State sludge management plan prepared pursuant to subtitle D of the SWDA), sludge regulations appearing in 40 CFR Part 507, the Clean Air Act, the Toxic Substances Control Act, and the Marine Protection, Research and Sanctuaries Act.

**Local limits** - Specific prohibitions or limits on pollutants or pollutant parameters developed by a POTW.

**Major facility** - A facility discharging to surface water with an EPA rating score of > 80 points based on such factors as flow volume, toxic pollutant potential, and public health impact.

**Maximum daily discharge limit** - The highest allowable daily discharge of a pollutant measured during a calendar day or any 24-hour period that reasonably represents the calendar day for purposes of sampling. The daily discharge is the maximum discharge of a pollutant measured during a calendar day.

**Maximum day design flow (MDDF)** - The largest volume of flow anticipated to occur during a one-day period, expressed as a daily average.

**Maximum month design flow (MMDF)** - The largest volume of flow anticipated to occur during a continuous 30-day period, expressed as a daily average.

**Maximum week design flow (MWDF)** - The largest volume of flow anticipated to occur during a continuous 7-day period, expressed as a daily average.

**Method detection level (MDL)** - See Detection Limit.

**Minor facility** - A facility discharging to surface water with an EPA rating score of < 80 points based on such factors as flow volume, toxic pollutant potential, and public health impact.

**Mixing zone** - An area that surrounds an effluent discharge within which water quality criteria may be exceeded. The permit specifies the area of the authorized mixing zone that Ecology defines following procedures outlined in state regulations (chapter 173-201A WAC).

**National pollutant discharge elimination system (NPDES)** - The NPDES (Section 402 of the Clean Water Act) is the federal wastewater permitting system for discharges to navigable waters of the United States. Many states, including the state of Washington, have been delegated the authority to issue these permits. NPDES permits issued by Washington State permit writers are joint NPDES/State permits issued under both state and federal laws.

**pH** - The pH of a liquid measures its acidity or alkalinity. It is the negative logarithm of the hydrogen ion concentration. A pH of 7 is defined as neutral and large variations above or below this value are considered harmful to most aquatic life.

**Pass-through** - A discharge which exits the POTW into waters of the State in quantities or concentrations which, alone or in conjunction with a discharge or discharges from other sources, is a cause of a violation of any requirement of the POTW's NPDES permit (including an increase in the magnitude or duration of a violation), or which is a cause of a violation of State water quality standards.

**Peak hour design flow (PHDF)** - The largest volume of flow anticipated to occur during a one-hour period, expressed as a daily or hourly average.

**Peak instantaneous design flow (PIDF)** - The maximum anticipated instantaneous flow.

**Point of compliance** - The location in the groundwater where the enforcement limit must not be exceeded and a facility must comply with the Ground Water Quality Standards. Ecology determines this limit on a site-specific basis. Ecology locates the point of compliance in the groundwater as near and directly downgradient from the pollutant source as technically, hydrogeologically, and geographically feasible, unless it approves an alternative point of compliance.

**Potential significant industrial user (PSIU)** - A potential significant industrial user is defined as an Industrial User that does not meet the criteria for a Significant Industrial User, but which discharges wastewater meeting one or more of the following criteria:

- a. Exceeds 0.5 % of treatment plant design capacity criteria and discharges <25,000 gallons per day or;
- b. Is a member of a group of similar industrial users which, taken together, have the potential to cause pass through or interference at the POTW (e.g. facilities which develop photographic film or paper, and car washes). Ecology may determine that a discharger initially classified as a potential significant industrial user should be managed as a significant industrial user.

**Quantitation level (QL)** - Also known as Minimum Level of Quantitation (ML) – The lowest level at which the entire analytical system must give a recognizable signal and acceptable calibration point for the analyte. It is equivalent to the concentration of the lowest calibration standard, assuming that the lab has used all method-specified sample weights, volumes, and cleanup procedures. The QL is calculated by multiplying the MDL by 3.18 and rounding the result to the number nearest to  $(1, 2, \text{or } 5) \times 10^n$ , where  $n$  is an integer. (64 FR 30417).

ALSO GIVEN AS:

The smallest detectable concentration of analyte greater than the Detection Limit (DL) where the accuracy (precision & bias) achieves the objectives of the intended purpose. (Report of the Federal Advisory Committee on Detection and Quantitation Approaches and Uses in Clean Water Act Programs Submitted to the US Environmental Protection Agency December 2007).

**Reasonable potential** - A reasonable potential to cause a water quality violation, or loss of sensitive and/or important habitat.

**Responsible corporate officer** - 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 the manager of one or more manufacturing, production, or operating facilities employing more than 250 persons or have gross annual sales or expenditures exceeding \$25 million (in second quarter 1980 dollars), if authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures (40 CFR 122.22).

**Sample Maximum** - No sample may exceed this value.

**Significant industrial user (SIU) --**

- 1) All industrial users subject to Categorical Pretreatment Standards under 40 CFR 403.6 and 40 CFR Chapter I, Subchapter N and;
- 2) Any other industrial user that: discharges an average of 25,000 gallons per day or more of process wastewater to the POTW (excluding sanitary, noncontact cooling, and boiler blow-down wastewater); contributes a process wastestream that makes up 5 percent or more of the average dry weather hydraulic or organic capacity of the POTW treatment plant; or is designated as such by the Control Authority\* on the basis that the industrial user has a reasonable potential for adversely affecting the POTW's operation or for violating any pretreatment standard or requirement [in accordance with 40 CFR 403.8(f)(6)].

Upon finding that the industrial user meeting the criteria in paragraph 2, above, has no reasonable potential for adversely affecting the POTW's operation or for violating any pretreatment standard or requirement, the Control Authority\* may at any time, on its own initiative or in response to a petition received from an industrial user or POTW, and in accordance with 40 CFR 403.8(f)(6), determine that such industrial user is not a significant industrial user.

\*The term "Control Authority" refers to the Washington State Department of Ecology in the case of non-delegated POTWs or to the POTW in the case of delegated POTWs.

**Slug discharge** - Any discharge of a non-routine, episodic nature, including but not limited to an accidental spill or a non-customary batch discharge to the POTW. This may include any pollutant released at a flow rate that may cause interference or pass through with the POTW or in any way violate the permit conditions or the POTW's regulations and local limits.

**Soil scientist** - An individual who is registered as a Certified or Registered Professional Soil Scientist or as a Certified Professional Soil Specialist by the American Registry of Certified Professionals in Agronomy, Crops, and Soils or by the National Society of Consulting Scientists or who has the credentials for membership. Minimum requirements for eligibility are: possession of a baccalaureate, masters, or doctorate degree from a U.S. or Canadian institution with a minimum of 30 semester hours or 45 quarter hours professional core courses in agronomy, crops or soils, and have 5,3,or 1 years, respectively, of professional experience working in the area of agronomy, crops, or soils.

**Solid waste** - All putrescible and non-putrescible solid and semisolid wastes including, but not limited to, garbage, rubbish, ashes, industrial wastes, swill, sewage sludge, demolition and construction wastes, abandoned vehicles or parts thereof, contaminated soils and contaminated dredged material, and recyclable materials.

**Soluble BOD<sub>5</sub>** - Determining the soluble fraction of Biochemical Oxygen Demand of an effluent is an indirect way of measuring the quantity of soluble organic material present in an effluent that is utilized by bacteria. Although the soluble BOD<sub>5</sub> test is not specifically described in Standard Methods, filtering the raw sample through at least a 1.2 um filter prior to running the standard BOD<sub>5</sub> test is sufficient to remove the particulate organic fraction.

**State waters** - Lakes, rivers, ponds, streams, inland waters, underground waters, salt waters, and all other surface waters and watercourses within the jurisdiction of the state of Washington.

**Stormwater** - That portion of precipitation that does not naturally percolate into the ground or evaporate, but flows via overland flow, interflow, pipes, and other features of a stormwater drainage system into a defined surface water body, or a constructed infiltration facility.

**Technology-based effluent limit** - A permit limit based on the ability of a treatment method to reduce the pollutant.

**Total coliform bacteria** - A microbiological test, which detects and enumerates the total coliform group of bacteria in water samples.

**Total dissolved solids** - That portion of total solids in water or wastewater that passes through a specific filter.

**Total maximum daily load (TMDL)** - A determination of the amount of pollutant that a water body can receive and still meet water quality standards.

**Total suspended solids (TSS)** - Total suspended solids is the particulate material in an effluent. Large quantities of TSS discharged to a receiving water may result in solids accumulation. Apart from any toxic effects attributable to substances leached out by water, suspended solids may kill fish, shellfish, and other aquatic organisms by causing abrasive injuries and by clogging the gills and respiratory passages of various aquatic fauna. Indirectly, suspended solids can screen out light and can promote and maintain the development of noxious conditions through oxygen depletion.

**Upset** - An exceptional incident in which there is unintentional and temporary noncompliance with technology-based permit effluent limits 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, lack of preventative maintenance, or careless or improper operation.

**Water quality-based effluent limit** - A limit imposed on the concentration of an effluent parameter to prevent the concentration of that parameter from exceeding its water quality criterion after discharge into receiving waters.

## **Appendix D – Discharge Monitoring Data**

The follow pages include time series plots of discharge monitoring data.



Chart 1: Discharge monitoring data for ammonia, nitrate and TKN

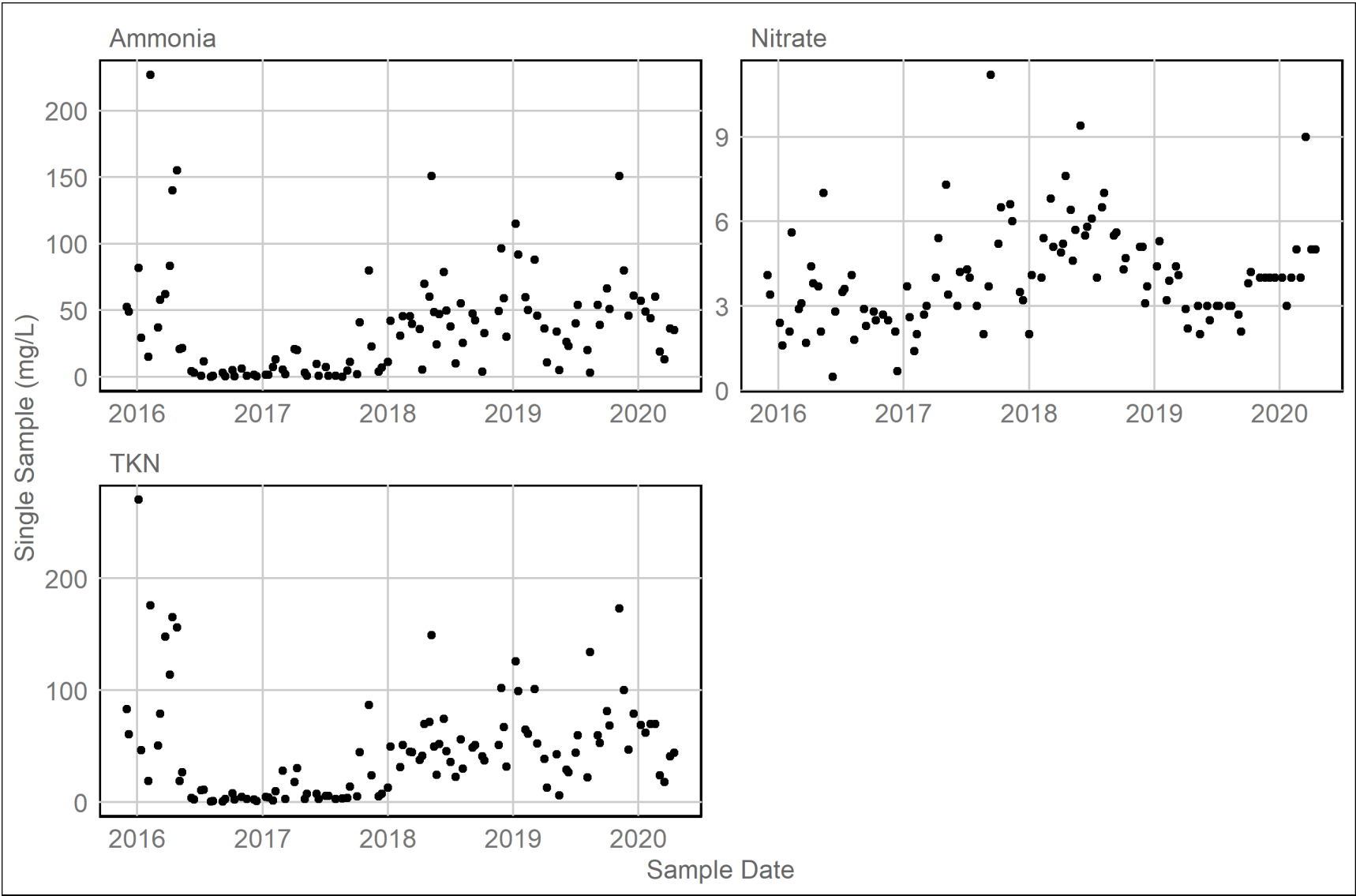


Chart 2: Discharge monitoring data for calcium, sodium and sulfate

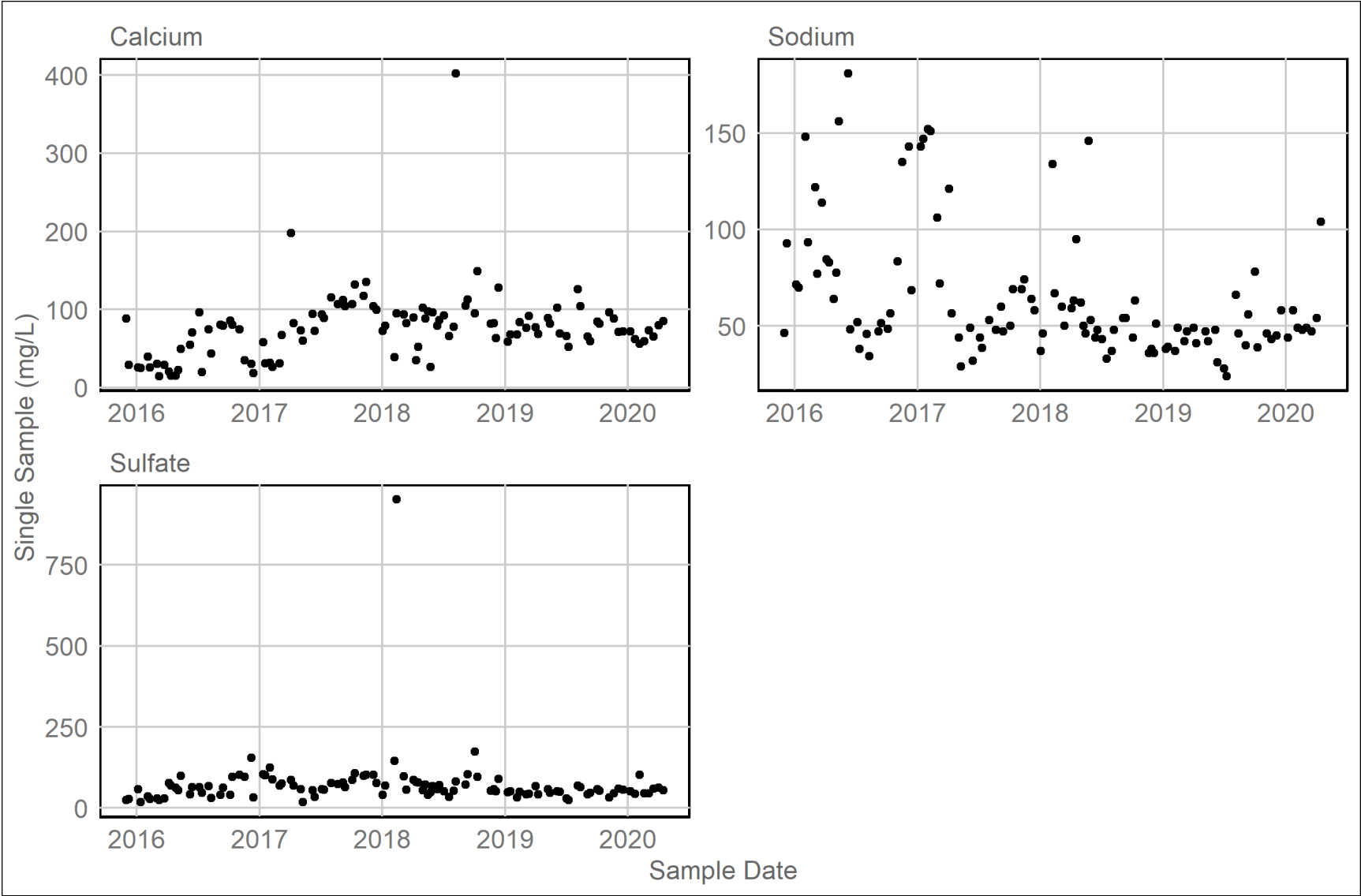


Chart 3: Discharge monitoring data for chloride, magnesium and potassium

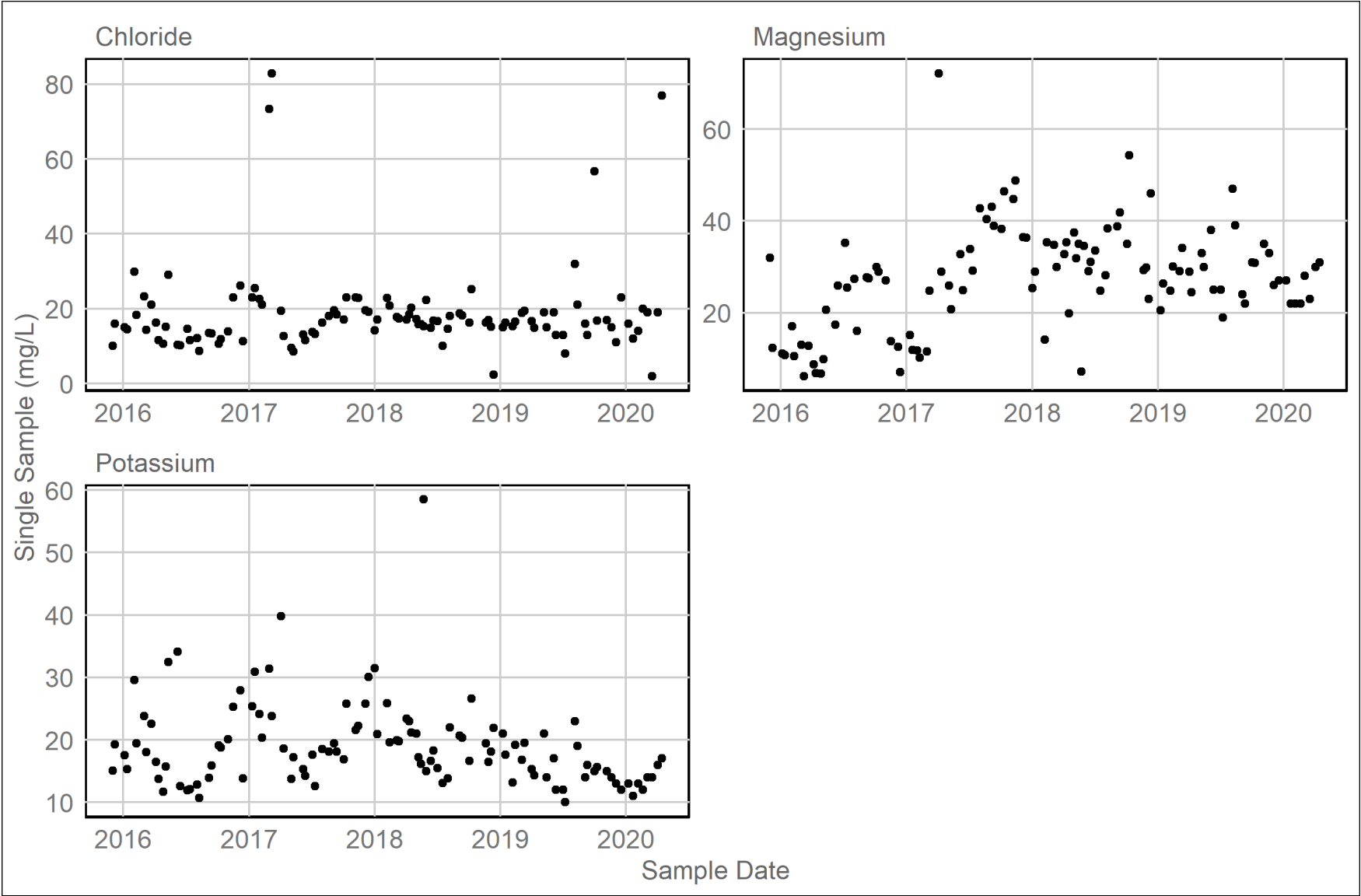


Chart 4: Discharge monitoring data for conductivity and TDS

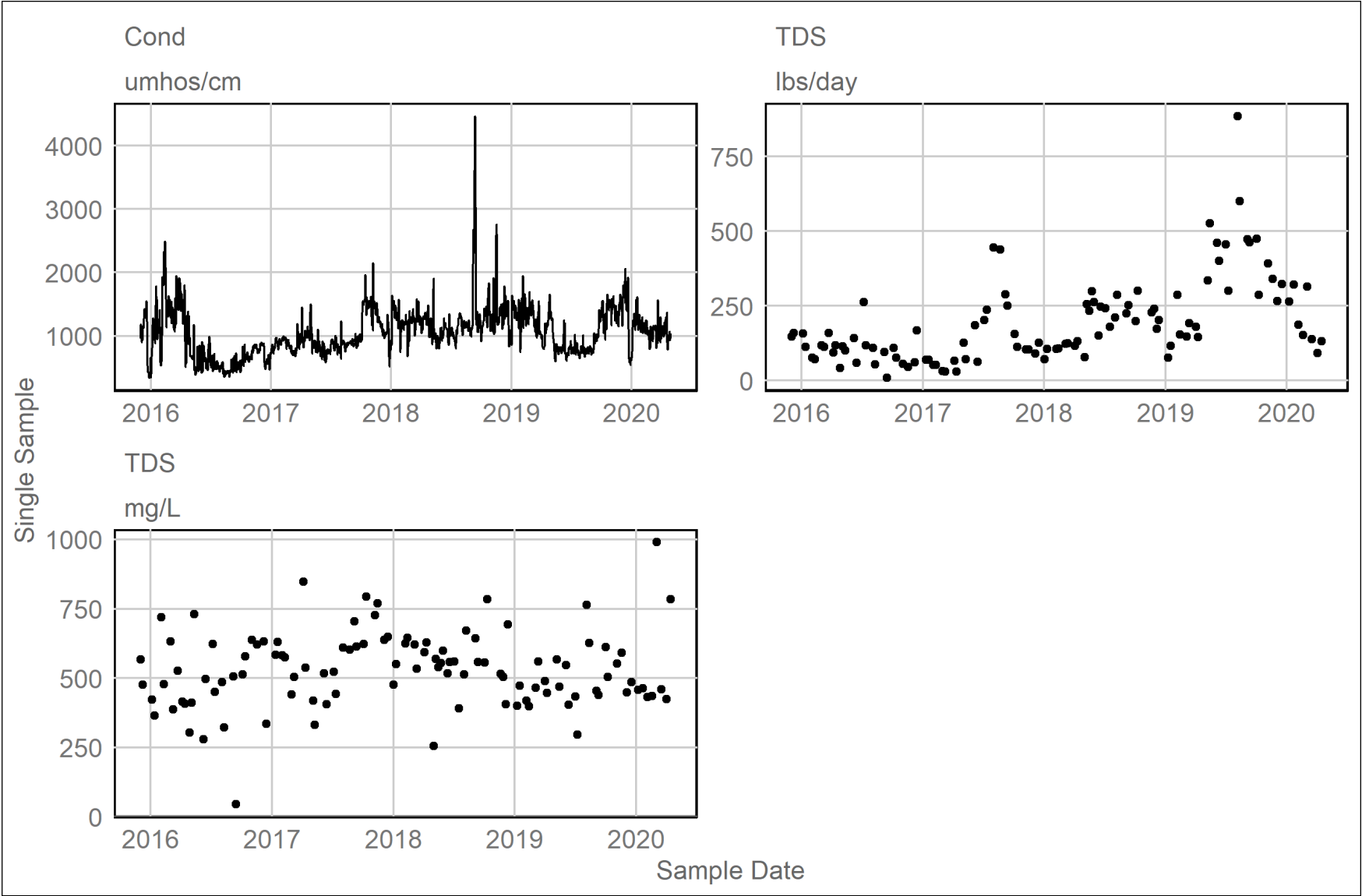


Chart 5: Discharge monitoring data for conductivity, SAR, TDS, and total nitrogen

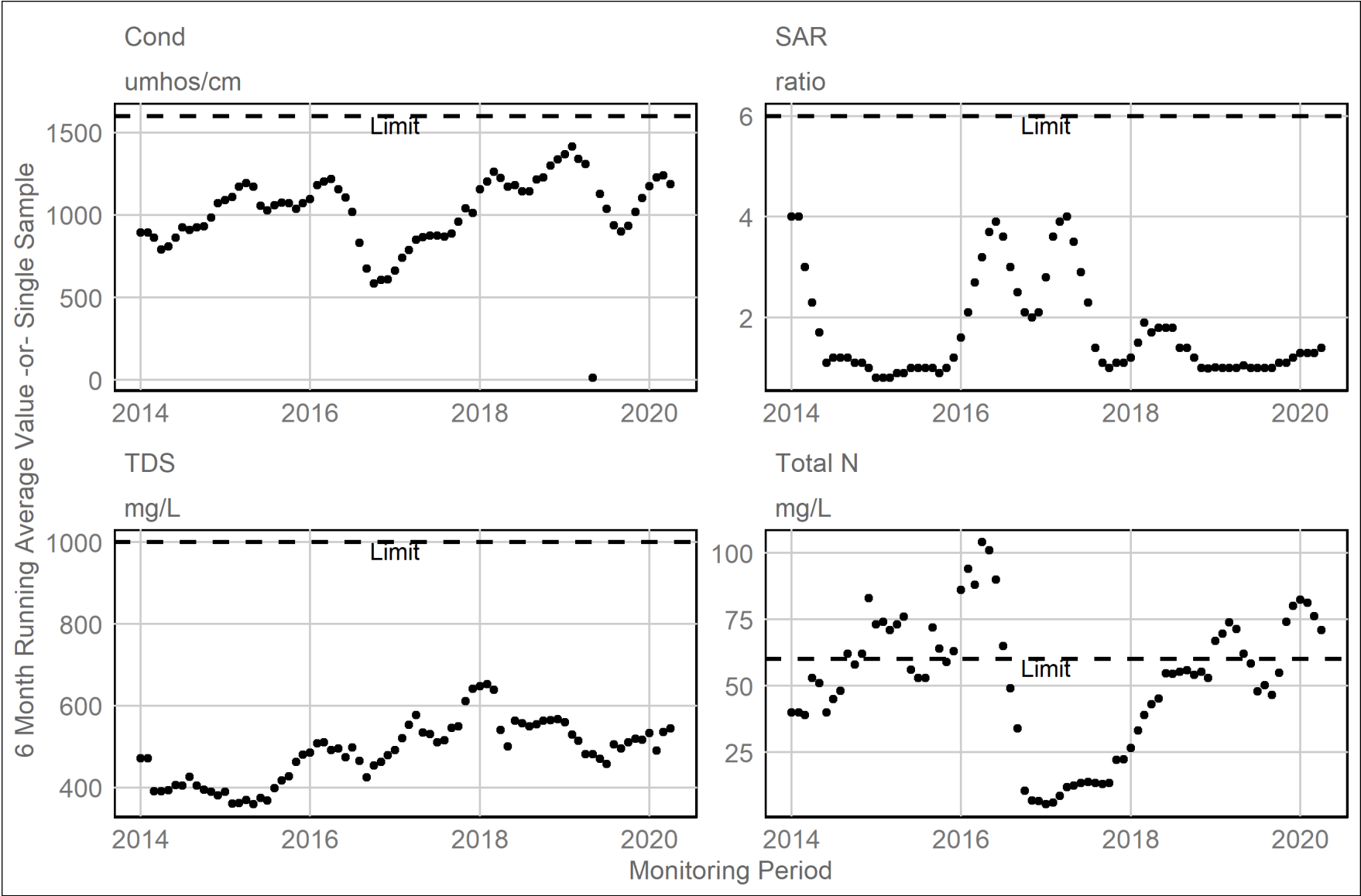


Chart 6: Discharge monitoring data for aluminum, arsenic, beryllium, and boron

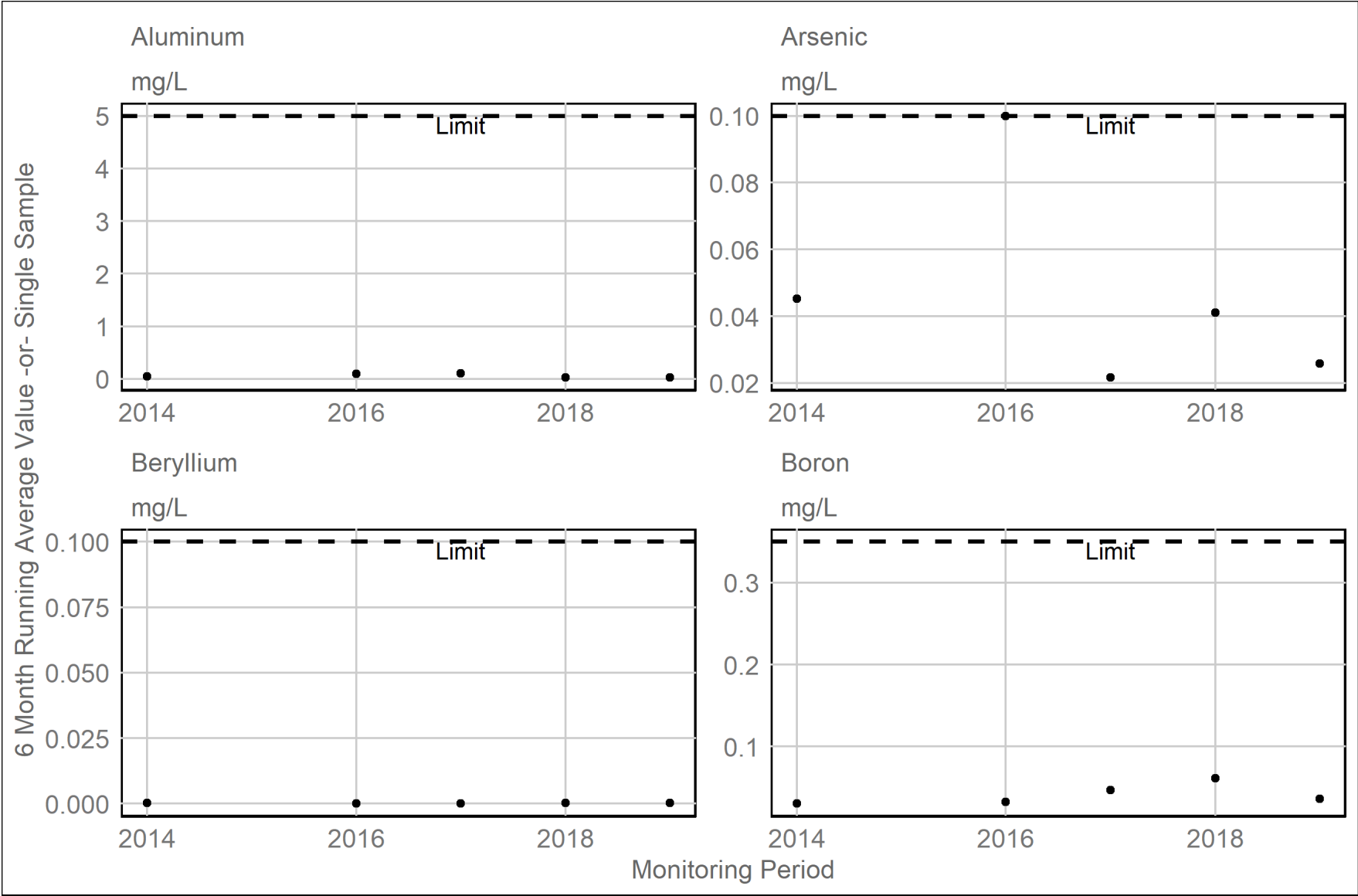


Chart 7: Discharge monitoring data for cadmium, chromium, cobalt, and copper

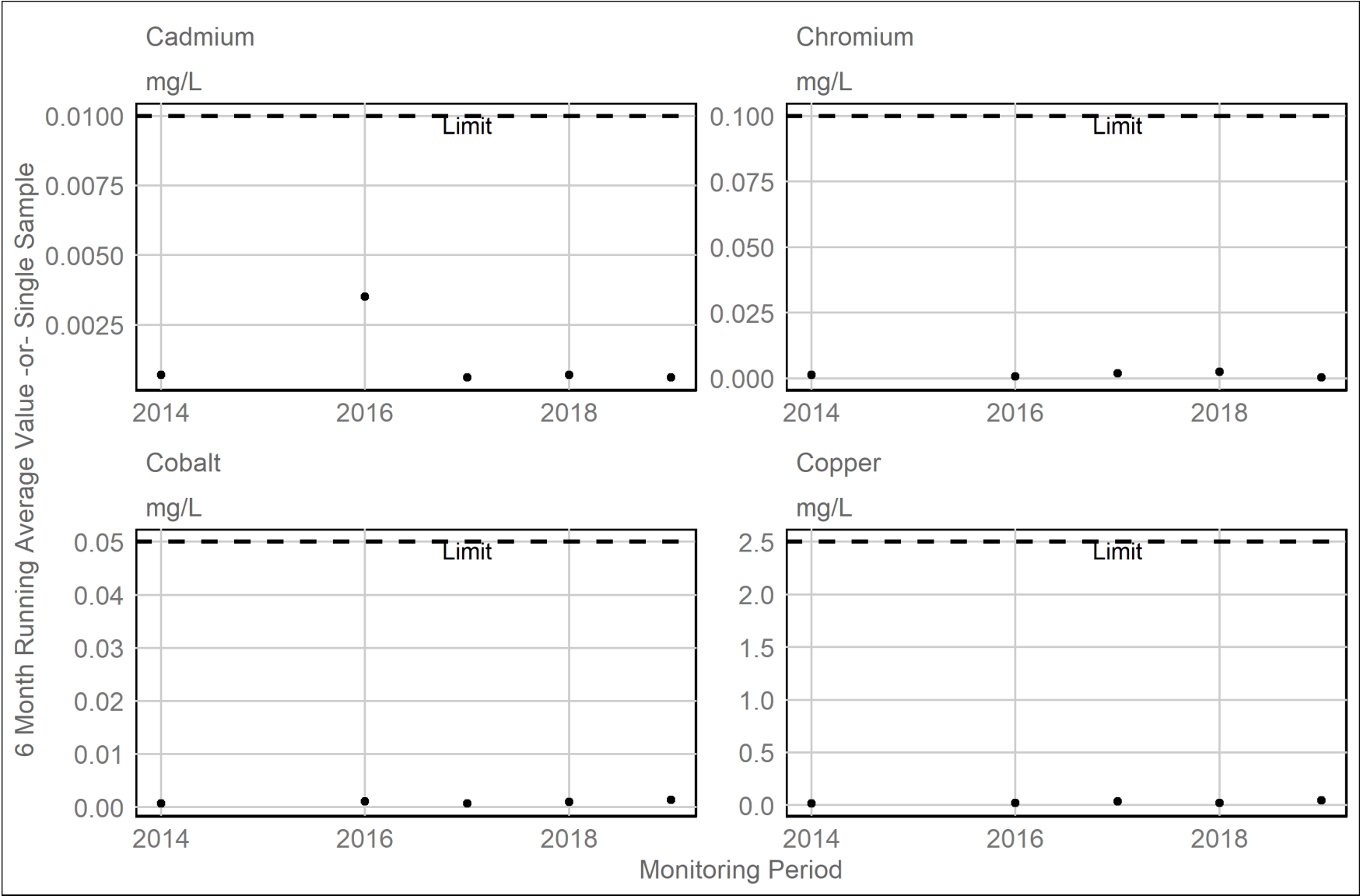


Chart 8: Discharge monitoring data for fluoride, iron, lead, and lithium

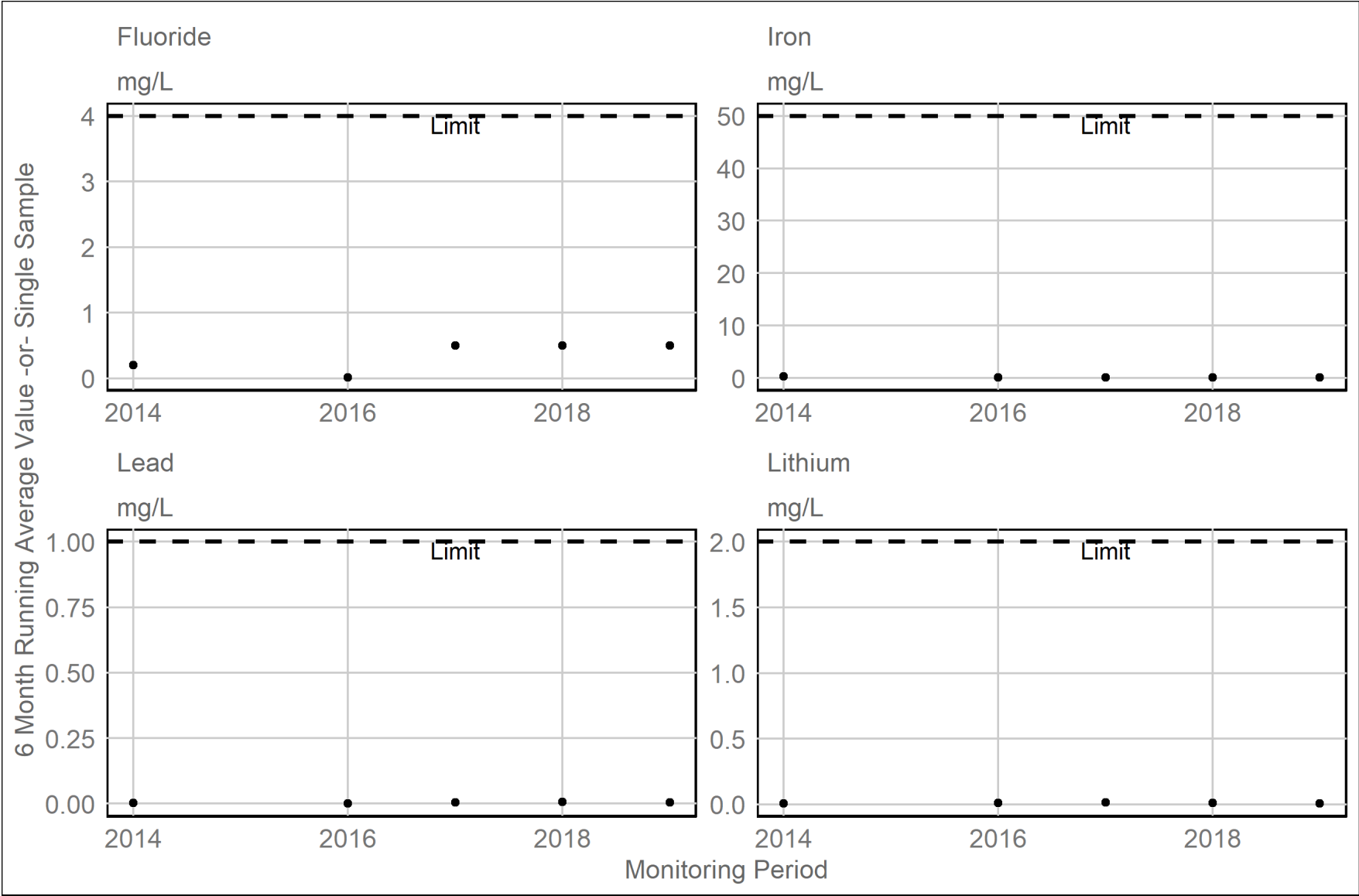




Chart 9: Discharge monitoring data for manganese, molybdenum, nickel, and oil & grease

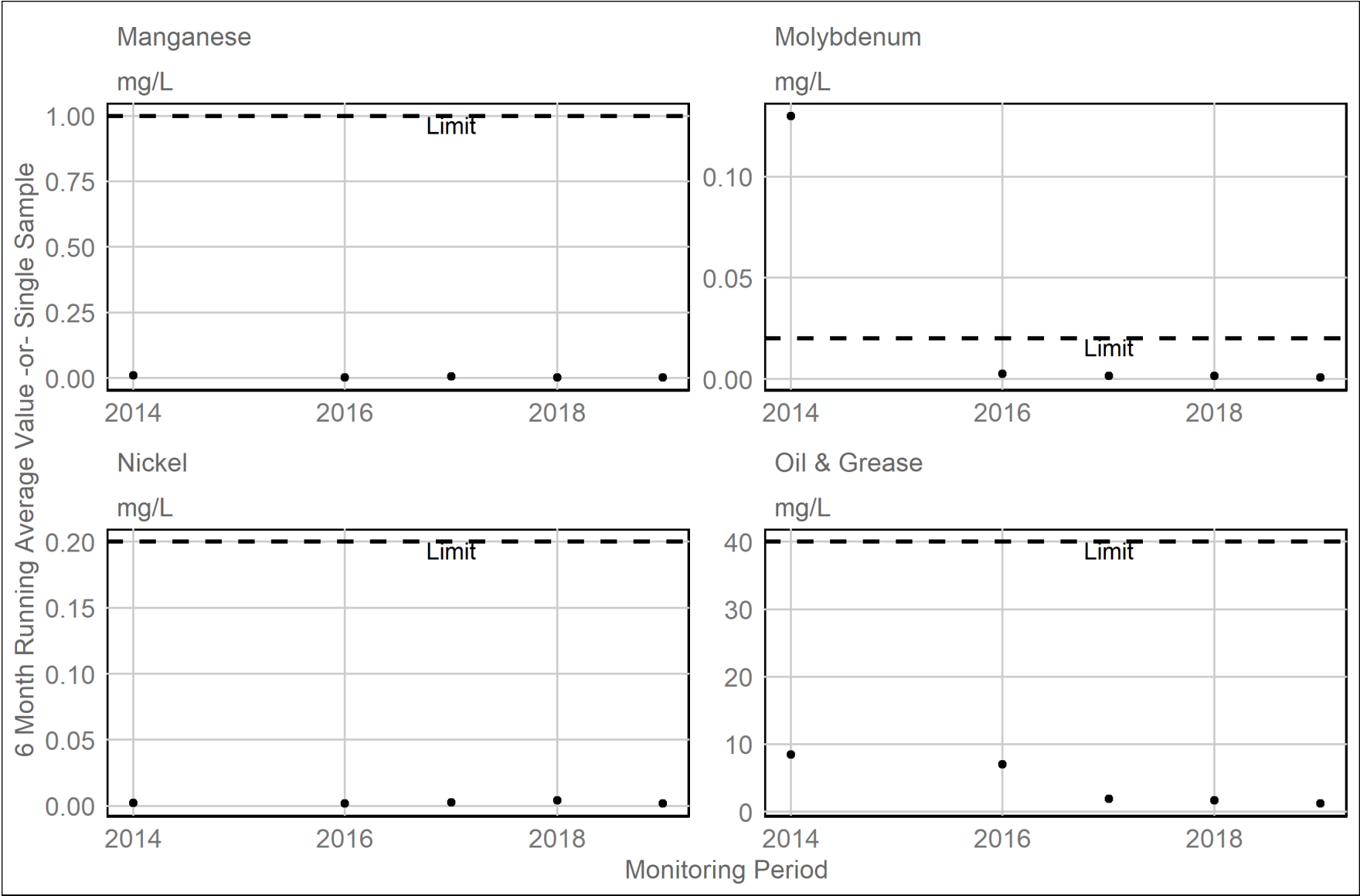


Chart 10: Discharge monitoring data for selenium, vanadium, and zinc

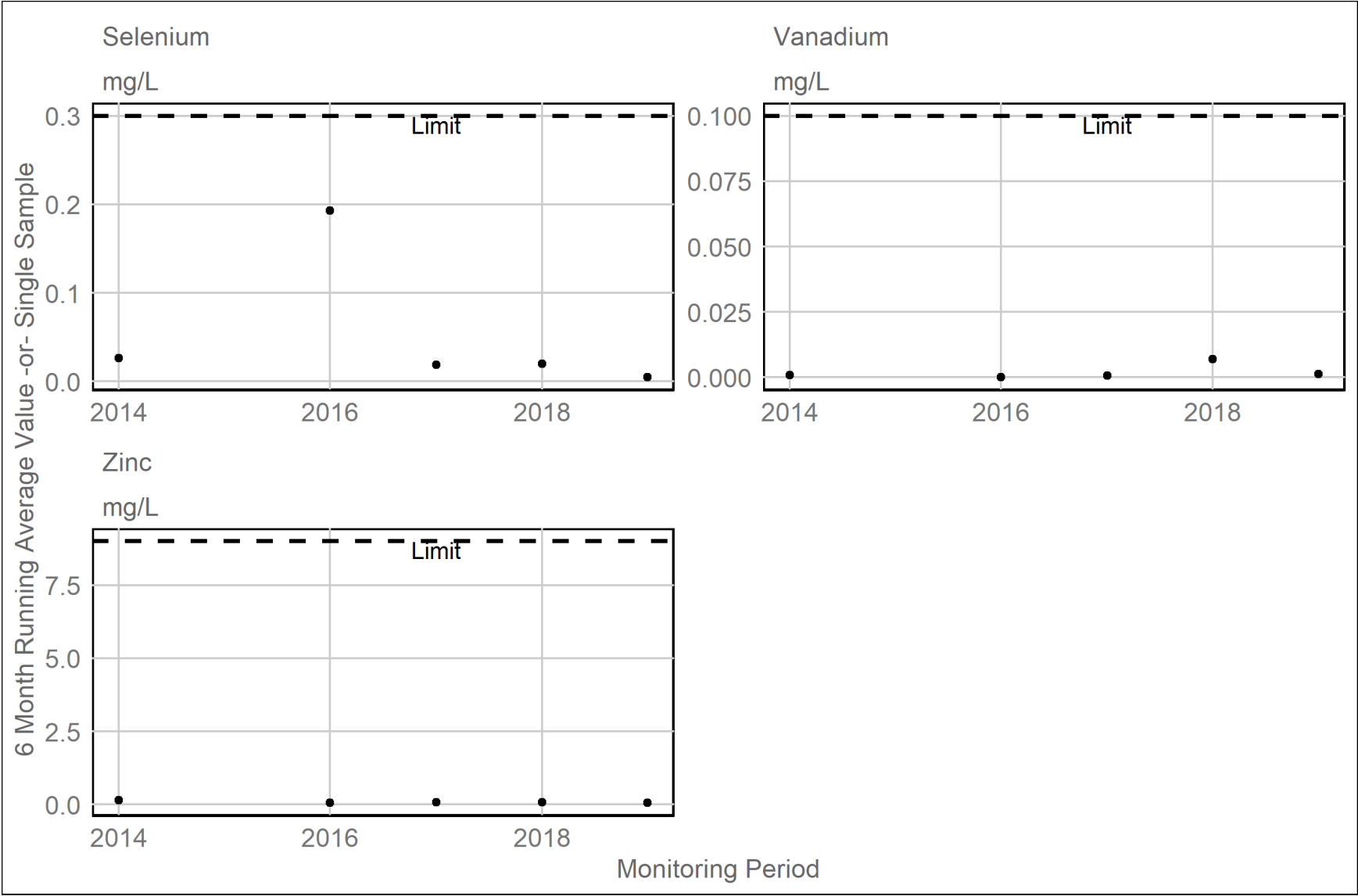


Chart 11: Discharge monitoring data for selenium, vanadium, and zinc

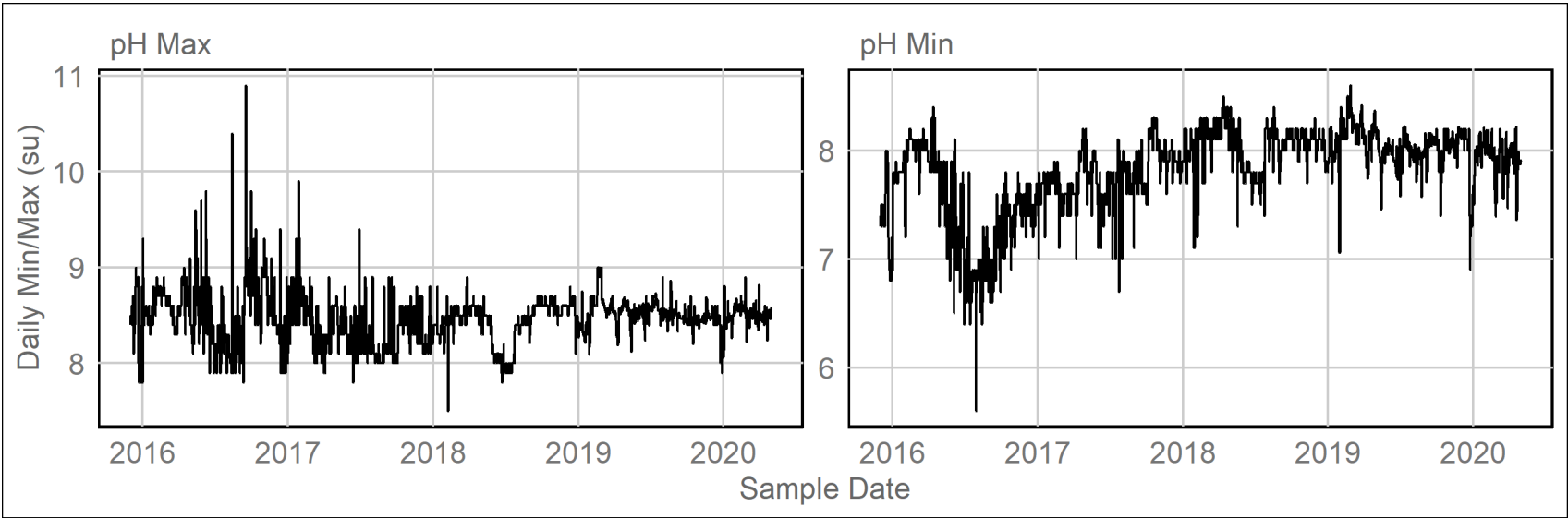


Chart 12: Discharge monitoring data for selenium, vanadium, and zinc

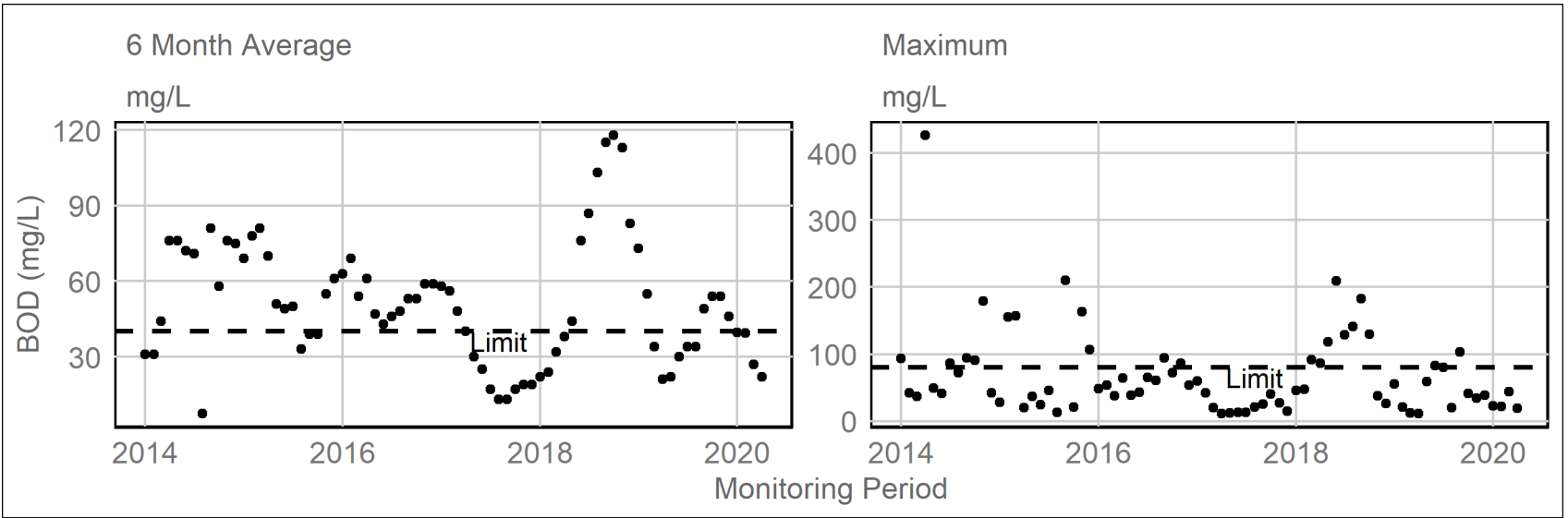


Chart 13: Discharge monitoring data for flow (average monthly & maximum)

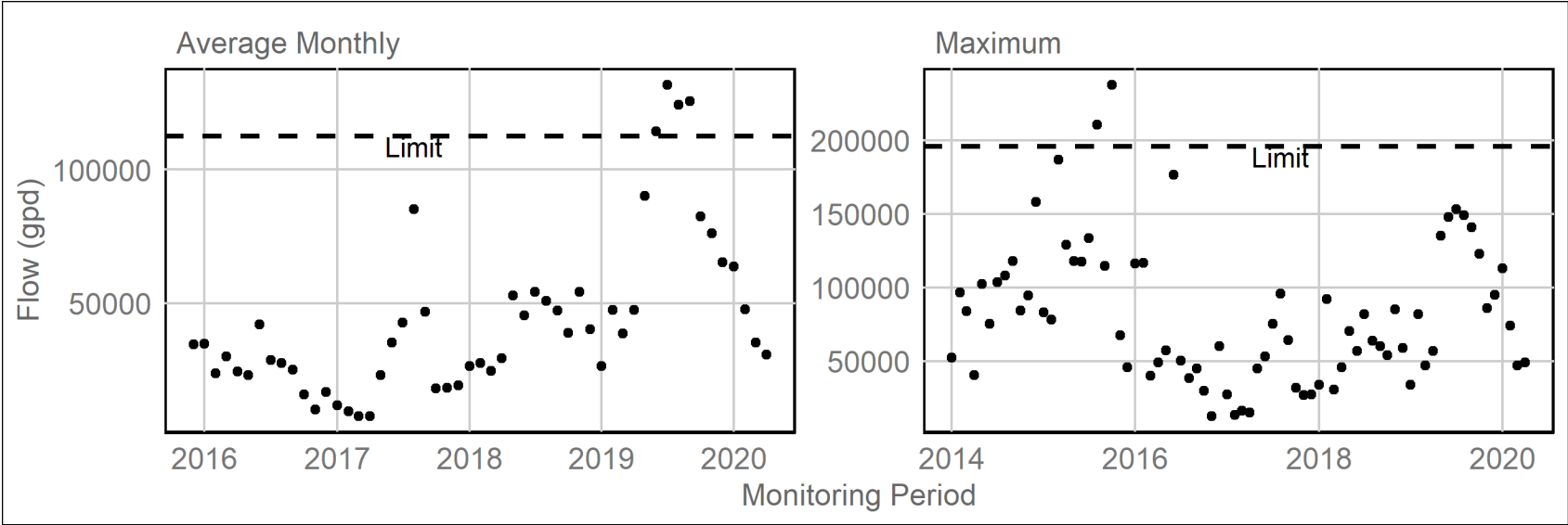
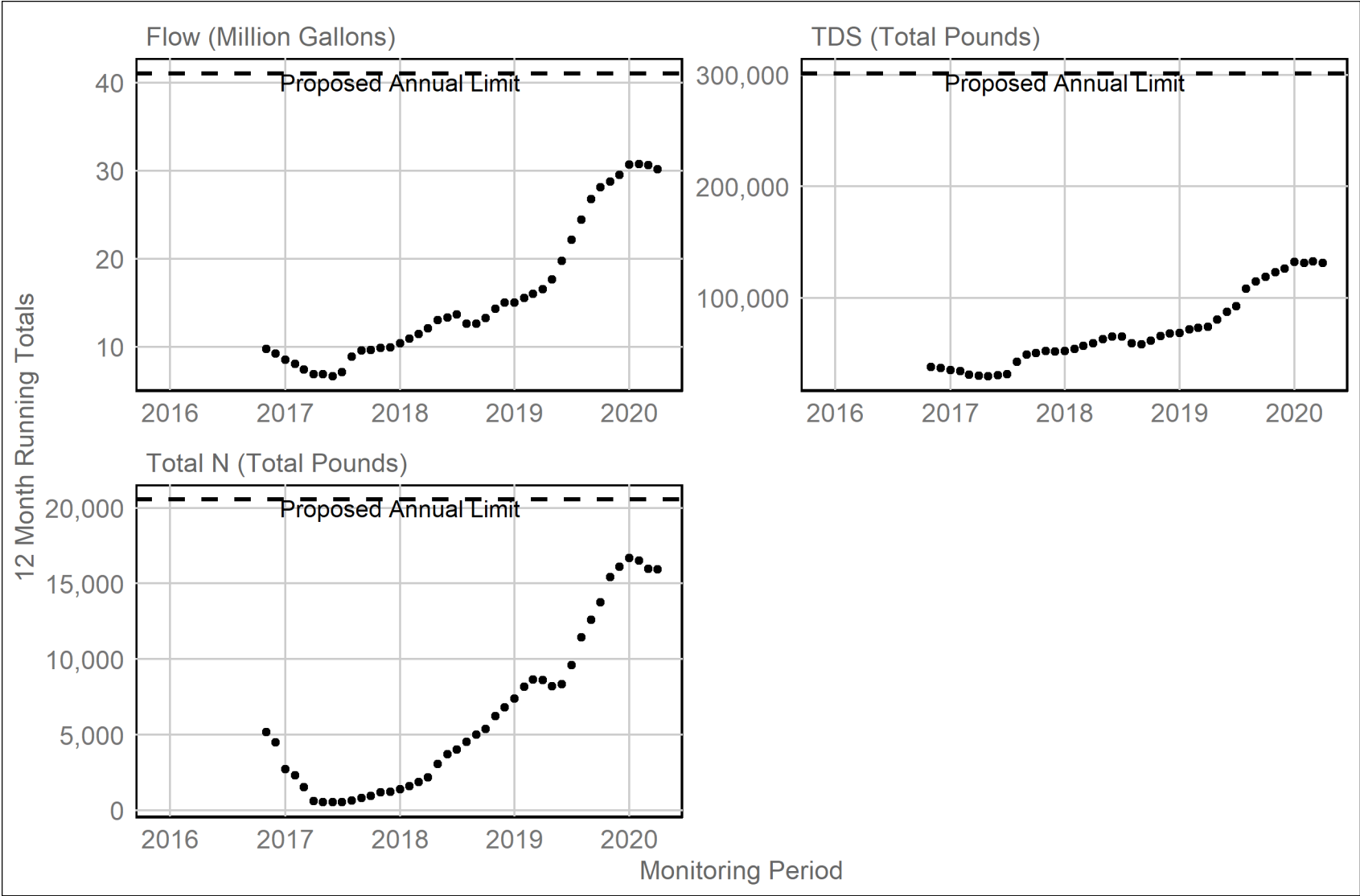


Chart 14: Discharge monitoring data for flow, TDS total pounds, and total N total pounds (12 month running totals)



## **Appendix E - Response to Comments**

Ecology did not receive comments on the draft permit following the 30-day public comment period.