

FACT SHEET FOR STATE WASTE DISCHARGE PERMIT ST-8090

A1 Quality Services

SUMMARY

PURPOSE of this Fact Sheet

This fact sheet explains and documents the decisions Ecology made in drafting the proposed State Waste Discharge permit for A-1 Quality Services (doing business as G&S Truck Wash) that will allow the discharge of wastewater to the City of Pasco's Publicly Owned Treatment Works (POTW).

State law requires any industrial facility to obtain a permit before discharging waste or chemicals to waters of the state. This statute includes commercial or industrial discharges to sewerage systems operated by municipalities or public entities which discharge into waters of the state.

A State Waste Discharge permit limits the types and amounts of pollution the facility may discharge. Ecology bases those limits either on (1) the pollution control or wastewater treatment technology available to the industry, or on (2) the effects of the pollutants to the POTW (local limits).

PUBLIC ROLE in the Permit

Ecology makes the draft permit and fact sheet available for public review and comment at least thirty (30) days before we issue the final permit to the facility operator. Copies of the fact sheet and draft permit for A1 Quality Services, State Waste Discharge permit ST-8090 are available for public review and comment from May 6, 2009 until the close of business June 5, 2009. For more details on preparing and filing comments about these documents, please see **Appendix A - Public Involvement**.

Before Ecology published the draft State Waste Discharge permit, A1 Quality Services reviewed it for factual accuracy. Ecology corrected any errors or omissions about the facility's location, product type or production rate, discharges or receiving water, or its history.

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 D - Response to Comments**, and publish it when we issue the final State Waste Discharge permit. The rest of the fact sheet will not be revised, but the full document will become part of the legal history contained in the facility's permit file.

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I. INTRODUCTION

The legislature defined Ecology's authority and obligations for the wastewater discharge permit program in 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)

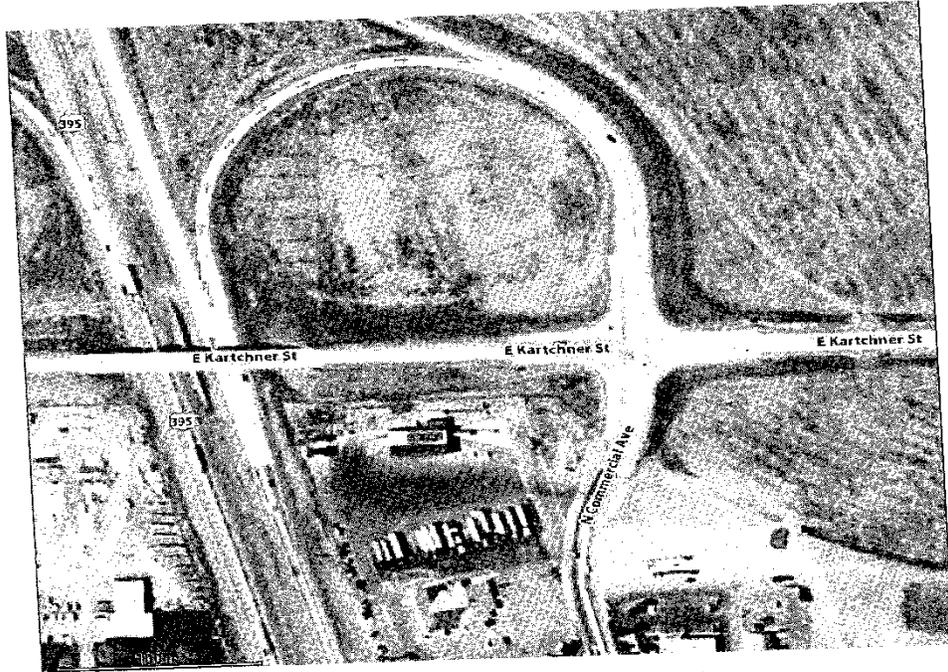
These rules require any industrial facility operator to obtain a State Waste Discharge permit before discharging wastewater to state waters. This rule includes commercial or industrial discharges to sewerage systems operated by municipalities or public entities which discharge into public waters of the 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 must prepare a draft permit and accompanying fact sheet, and make it available for public review before final issuance. Ecology must also publish an announcement (public notice) telling people where they can read the draft permit, and where to send their comments, during a period of thirty days. (See **Appendix A--Public Involvement** 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. Ecology will summarize the responses to comments and any changes to the permit in **Appendix D**.

Table 1: General Facility Information

Applicant:	Jaswant (Jesse) Singh Mundi
Facility Name and Address:	A1 Quality Services (doing business as G & S Truck Wash) 3802 N. Commercial Avenue Pasco, Washington 99301
Type of Facility:	Truck Wash, Significant Industry User
SIC Code	7542
Discharge Location:	Latitude: 46° 15' 83" N Longitude: 119° 05' 5" W
Treatment Plant Receiving Discharge	City of Pasco, Washington Wastewater Treatment Plant
Contact at Facility	Mel Christensen, Oasis Development Corporation (509) 492-5495
Responsible Official	Jaswant (Jesse) Singh Mundi 3802 N. Commercial Avenue, Pasco, WA 99301 (509) 547-1744

Figure 1. Facility Location Map



II. BACKGROUND INFORMATION

A. Facility Description

History

A1 Quality Services acquired G & S Truck Wash in 2008. A1 Quality Services will operate the truck wash as AAA Truck Wash. No modification to the facility has occurred since it was built in the late 1990s. The facility did install a sampling manhole with pH and flow meter systems and a sampling device. The facility discharges to the City of Pasco's Wastewater Treatment Plant.

During this last permit cycle, the facility has violated BOD₅/TSS loading and pH limits. The facility has adjusted its pumping out schedule for the settling tanks. This more frequent pump out schedule has seemed to help with reducing the BOD₅ and TSS loading permit violations. However, the facility continues to have issues with high and low pH violations even after it repaired and replaced its pH monitoring system. The facility needs to take a closer look at what is causing the pH variations during this permitting cycle and propose possible solutions to correct the pH issues.

Industrial Process

A1 Quality Services operates a washing facility for Semi-Trucks and Tractor-Trailers in Pasco, Washington. It does not wash the interior of tanker trailers/trucks but does wash the interior of tractor trailers. This facility is a Significant Industrial User and is not subject to Categorical Pretreatment Standards. The facility has proposed to increase its maximum daily discharge of 12,030 gallons per day to 18,000 gallons per day.

The overall facility consists of two main areas. The first area is the building where it conducts the truck exterior wash (TEW) and the second area is the truck washout pit, which is the location of the truck interior rinse (TIR). The facility operates 7 days a week and 52 weeks out of the year. The facility operates 12 hours a day during the week and 8 hours a day during the weekend. The production schematic and flow balance diagram and stormwater drainage map are located in Appendix E.

The truck exterior wash (TEW) has two bays inside the building for washing the exterior trucks and RVs. The process uses water, Aluminum Brightener, and Truck Wash 'soap' to wash the exterior of tractor trailers and RVs. This cycle consists of a high pressure cold water pre-rinse of the tractor-trailers; then application of the Truck Wash 'soap' to the tractor trailers by mixing the solution with warm water and spraying it on; followed by another high pressure cold water rinse. The facility mixes the Aluminum Brightener with warm water and sprays it on the aluminum portions of the tractor-trailers and then rinses it off using high-pressure cold water. The chemicals used for the TEW washing are located in the South Bay. See map in Appendix E. The runoff water drains into troughs/trenches in both bays then is routed to a large settling tank. From the settling tank, the wash water is tied into the City of Pasco Sewer System.

The facility rinses the trailer interiors to remove cattle manure, potato waste, and other agricultural food grade waste. The trailer interior rinse (TIR) cycle consists of a high-pressure cold-water rinse. The trailers back down into a pit and the trailer interior is then washed with the high-pressure hose.

The runoff water from the rinse drains into a channel with a four stage screening process. The wastewater then continues into two large settling tanks. From the settling tanks, the wastewater discharges into the City of Pasco's sewer system.

Wastewater Pretreatment

As described in the Industrial Process, the TEW cycle includes a settling tank on the north side of the building for wastewater treatment. The settling tank effluent combines with the TIR wastewater before discharging to the sampling manhole. The diagram in Appendix E shows the location of the settling tank.

The TIR Cycle consists of a four stage screening process and settling tank for the treatment of the wastewater. See Appendix E for the locations of the screens and settling tank. The screens are designed to "catch" the solids from the rinsing of the trailers. The facility periodically manually cleans out the four stage screening channel. The solids are collected from the truck washout pit and the screening channel.

Both the TIR and TEW wastewater combine and flow through the sampling manhole. After the sampling manhole, the process wastewater combines with the domestic flow. This total wastewater flows into the City of Pasco's sewer system.

The sampling manhole is equipped with the following: flow meter, pH meter, and a sampling device. The combined process wastewater is continuously monitored for flow and pH at the manhole. Also, the sampling device 'grabs' the monthly sampling that is needed according to the monitoring requirements.

Solid Wastes

The facility has a solid waste control plan. However, it needs updating due to some changes at the facility.

Solids from the TIR pit collect in a pile west of the pit. A1 disposes of this pile through a contractor that hauls it off. The TIR screenings from the channel are dumped directly into a dumpster.

The TIR and TEW settling tanks are pumped out at least 3 times a year. A Septic Hauler does the pumping and the hauler disposes of the sludge.

B. Permit Status

A1Quality Services (dba G & S Truck Wash) submitted an application for permit renewal on January 22, 2009. Ecology accepted it as complete on January 25, 2009.

Ecology issued the previous permit for this facility on April 26, 2004. The previous permit placed effluent limits on flow, pH, BOD₅, TSS, and Fats, Oil, and Grease (FOG).

C. Summary of Compliance with Previous Permit Issued

Ecology staff last conducted a non-sampling compliance inspection on May 22, 2008.

A1 Quality Services has had several significant reportable violations of flow, BOD₅, TSS, and pH limits. Figure 2, Figure 3, and Figure 4 in Appendix C show these violations.

Ecology believes that the flow violations were probably caused by obstructions in the sewer line and washing more vehicles than described in the previous engineering report. Ecology also believes that the BOD₅ and TSS violations were probably caused because of lack of settling tank maintenance. The facility currently pumps their tanks at least semi-annually and when it evaluates TSS. A1 needs to investigate why it violates the pH limit. The facility is currently replacing different components of the pH system. If replacement does not fix the pH issue, the facility will have to conduct a more in depth analysis of the pH issue and potentially add a pH control system. Ecology assessed facility compliance based on its inspections and its review of the facility's Discharge Monitoring Reports (DMRs).

D. Wastewater Characterization

A1 Quality Services (dba G & S Truck Wash) reported the concentration of pollutants in the State Waste Discharge application received January 22, 2009 and in discharge monitoring reports. The tabulated data represents the quality of the effluent discharged from January 2007 to December 2008. The effluent is characterized as follows:

Table 2: Wastewater Characterization

Parameter	Average Concentration	Maximum Concentration
BOD5 (mg/l)	204.3	630
TSS (Total Suspended Solids) (mg/l)	230	516
Ammonia-N(mg/l)	13.5	59.3
pH (standards units)	---	Min—3.4 and Max----11.6
Total Kjeldahl N (mg/l)	27.3	98.6
Oil (mg/l)	7.7	21
Diesel #2 (mg/l)	2.65	6.46
Copper (total) (mg/l)	0.187	0.308
Zinc (total) (mg/l)	1.70	3.37

E. SEPA Compliance

Regulation exempts reissuance or modification of any wastewater discharge permit from the SEPA process as long as the permit contains conditions are no less stringent than state rules and regulations. The exemption applies only to existing discharges, not to new discharges.

III. PROPOSED PERMIT CONDITIONS

State regulations require that Ecology base permit discharge limits 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, or Ecology develops limits on a case-by-case basis (40 CFR 125.3, and RCW 90.48).

Dischargers must treat wastewater using all known, available, reasonable methods of prevention, control, and treatment (AKART).

- Effects of the pollutants to the POTW (local limits). Wastewater must not interfere with the operation of the POTW.
- 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, hydrogeology, 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 that were not reported in the permit application but that 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. Industries may be in violation of their permit until the permit is modified to reflect additional discharge of pollutants.

A. Technology-Based Effluent Limits

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

Ecology approved the engineering report for the A1 Quality Services’ wastewater facility titled G & S Truck Wash Engineering Report dated January 2007 prepared by Harms Engineering and A1 Quality Services (dba G & S Truck Wash) Engineering Report Update dated December 2008 prepared by Oasis Development Corporation. Ecology determined that the facility meets the minimum requirements demonstrating compliance with AKART if A1Quality Services operates the treatment and disposal system as described in the approved engineering report and any subsequent Ecology approved reports.

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

Table 3: Technology Based Effluent Limits

Parameter	EFFLUENT LIMITS	
	Average Monthly	Maximum Daily
Flow	15, 000 gallons per day	18,000 gallons per day

B. Effluent Limits Based On Local Limits

To protect City of Pasco’s POTW from pass-through, interference, concentrations of toxic chemicals that would impair beneficial or designated uses of sludge, or potentially hazardous exposure levels, Ecology believes it necessary to impose limits for certain parameters. Ecology based these limits on local limits established by the City of Pasco’s POTW and codified in ordinance. Applicable limits for this discharge include the following:

Table 4: Limits Based on Local Limits

	EFFLUENT LIMITS
Parameter	Maximum Daily
BOD ₅	300 mg/l
pH	Daily minimum is equal to or greater than 5.5 daily

Pollutant concentrations in the proposed discharge with technology-based controls in place will not cause problems at the receiving POTW such as interference, pass-through or hazardous exposure conditions to POTW workers nor will it result in unacceptable pollutant levels in the POTW’s sludge.

C. Comparison of Effluent Limits with Limits of the Previous Permit Issued on April 26, 2004

Table 5: Comparison of Effluent Limits

Parameter	Basis of Limit	Previous Effluent Limits: Sampling Manhole		Proposed Effluent Limits: Sampling Manhole	
		Average Monthly	Maximum Daily	Average Monthly	Maximum Daily
Flow	Technology	10,615 gpd	12,030 gpd	15,000 gpd	18,000 gpd
Biochemical Oxygen Demand (5-day)	Local Limits	---	300 mg/l	---	300 mg/l
Total Suspended Solids	Local Limits	---	350 mg/l	---	---
Fats, Oil, and Grease	Local Limits	---	100 mg/l	---	---
pH	Local Limits	5.5 to 9.0 standard units (s.u.)		Daily minimum is equal to or greater than 5.5 s.u. and daily maximum is equal to or less than 9.0 s.u.	

Ecology increased the flow parameter for average monthly and maximum daily due to the facility using their southern bay for washing the exterior of vehicles. This change was described in the Engineering Report Update dated December 2008. Ecology removed the effluent limits for Fats, Oil, and Grease and Total Suspended Solids from this permit because the City of Pasco updated their local ordinance and removed these limits. However, the proposed permit still requires the facility to measure these parameters.

Appendix C includes a comparison of the effluent data and limits for the parameters of flow, BOD₅, and pH.

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.

Ecology details the proposed monitoring schedule under 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.

The proposed permit requires additional monitoring to further characterize the facility's effluent. These pollutant(s) could have a significant impact on the receiving POTW.

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).

V. OTHER PERMIT CONDITIONS

A. Reporting and Recordkeeping

Ecology based permit condition S3 on our 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 industries 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 has prepared and must submit an update of an operation and maintenance 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. The proposed permit requires submission of an updated O&M manual for the entire wastewater system.

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).

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. Best Management Practices (BMPs)

Based off of the A1 Quality Services (dba G & S Truck Wash) Engineering Report Update dated December 2008, the facility is required to follow BMPs for pumping out the settling tanks and cleaning the troughs/trenches in the facility. The troughs/trenches are 22” deep so 85% depth will be 18.7”. Additionally, the facility is required to develop other BMPs. These BMPs will help reduce the loadings to the City of Pasco’s POTW.

F. Solid Waste Control Plan

A1 Quality Services could cause pollution of the waters of the state through inappropriate disposal of solid waste or through the release of leachate from solid waste.

This proposed permit requires this facility to update the approved solid waste control plan designed to prevent solid waste from causing pollution of waters of the state. A1 Quality Services must submit the updated plan to Ecology for approval (RCW 90.48.080). See Appendix C for a solid waste control plan focus sheet for more detail.

G. Non Routine and Unanticipated Discharges

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 non-routine and unanticipated discharges 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.

H. Spill Plan

This facility stores a quantity of chemicals on-site that have the potential to cause water pollution 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].

A1 Quality Services developed a plan for preventing the accidental release of pollutants to state waters and for minimizing damages if such a spill occurs. The proposed permit requires the facility to update this plan and submit it to Ecology.

I. Slug Discharge Plan

Ecology determined that A1 Quality Services has the potential for a batch discharge or a spill that could adversely affect the treatment plant therefore the proposed permit requires a slug discharge control plan (40 CFR 403.8 (f)).

J. Compliance Schedule for Meeting Pretreatment Standards

A1 Quality Services has been out of compliance with pH numerous times. The facility has noted that they believe that their pH Monitoring system is the cause of not being in compliance. In the last few months, the facility has replaced and tested several pieces of the monitoring system. To ensure that the pH issue is fixed, Ecology is requiring the facility to provide a pH Investigation Scope of Work which is due by August 10, 2009. The pH Investigation Scope of Work as a minimum will describe how the facility monitors and samples pH and ensures that the pH Investigation Report will have its minimum requirements. By November 1, 2010, the facility will provide a pH Investigation Report. This report will contain as a minimum the status of the pH monitoring system, the changes and repairs to the system, continuous daily pH monitoring data (minimum and maximum values), daily maximum flow, monthly grab pH data from the permittee's manhole, after settling tanks of the truck exterior wash area and trailer interior rinse area, maintenance on the settling tanks and drainage areas and trailer interior rinse areas, and recommendations to maintain the pH within the pH permit limits.

Depending on the pH Investigation Report and other material and reports, Ecology will determine if the facility will need an engineering report. If the facility is required to submit an engineering report, they will also be required to do the following; submit plans and specifications and operations and maintenance manual, install a treatment system, and obtain full operational status of the system and achieve full compliance. The due dates for these items are in the permit under Section S12 – Compliance Schedule for Meeting Pretreatment Standards.

K. General Conditions

Ecology bases the standardized General Conditions on state and federal 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 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 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 5 years.

VIII. REFERENCES FOR TEXT AND APPENDICES

Washington State Department of Ecology.

Laws and Regulations

(<http://www.ecy.wa.gov/laws-rules/index.html>)

Permit and Wastewater Related Information

(<http://www.ecy.wa.gov/programs/wq/wastewater/index.html>)

APPENDICES

APPENDIX A - PUBLIC INVOLVEMENT INFORMATION

Ecology proposes to reissue a permit to A1 Quality Services. The permit prescribes operating conditions and wastewater discharge limits. This fact sheet describes the facility and Ecology's reasons for requiring permit conditions.

Ecology placed a Public Notice of Application on February 5, 2009 and February 12, 2009 in the Tri-City Herald to inform the public about the submitted application and to invite comment on the reissuance of this permit.

Ecology published a Public Notice on May 6, 2009 in the Tri-City Herald to inform the public and to invite comment on the proposed reissuance of this State Waste Discharge permit as drafted.

The permit, fact sheet and related documents are available for inspection and copying between the hours of 8:00 a.m. and 5:00 p.m. weekdays, by appointment, at the regional office listed below.

Scott Mallery, P.E.
Department of Ecology
Eastern Regional Office
4601 North Monroe Street
Spokane, WA 99205-1295

You may obtain further information from Ecology by telephone at (509) 329-3400 or by writing to the permit writer at the address listed above.

The primary author of this permit and fact sheet is Scott Mallery.

APPENDIX B - GLOSSARY

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 ground water from the point of compliance where compliance with the ground water standards is measured. It may be established in the ground water 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) - The average of the daily flow volumes anticipated to occur over a calendar year.

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 ground water 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 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 a receiving water 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 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 the collection or 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.

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.

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, ground water, 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 ground water at the point of compliance for the purpose of regulation, [WAC 173-200-020(11)]. This limit assures that a ground water criterion will not be exceeded and that background water quality will be protected.

Engineering Report - A document, signed by a professional licensed engineer, which thoroughly examines the engineering and administrative aspects of a particular domestic or industrial wastewater facility. The report shall contain the appropriate information required in WAC 173-240-060 or 173-240-130.

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

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

Industrial User - A discharger of wastewater to the sanitary sewer which 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 storm water 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.

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 calculated as the average measurement of the pollutant over the 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) - The minimum concentration of a substance that can be measured and reported with 99% confidence that the analyte concentration is above zero and is determined from analysis of a sample in a given matrix containing the analyte.

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 ground water where the enforcement limit shall not be exceeded and a facility must be in compliance with the Ground Water Quality Standards. It is determined on a site specific basis and approved or designated by Ecology. It should be located in the ground water as near and directly downgradient from the pollutant source as technically, hydrogeologically, and geographically feasible, unless an alternative point of compliance is approved.

Potential Significant Industrial User - A potential significant industrial user is defined as an Industrial User which 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) - A calculated value five times the MDL (method detection level).

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

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 which may cause interference with the POTW.

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 BOD₅ – 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 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 BOD₅ 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 storm water drainage system into a defined surface water body, or a constructed infiltration facility.

Technology-based Effluent Limit - A permit limit that is 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 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.

Water Quality-based Effluent Limit - A limit on the concentration of an effluent parameter that is intended to prevent pollution of the receiving water.

APPENDIX C - PROCESS AND FLOWS FIGURES

Figure 2– Flow Data and Flow Limits

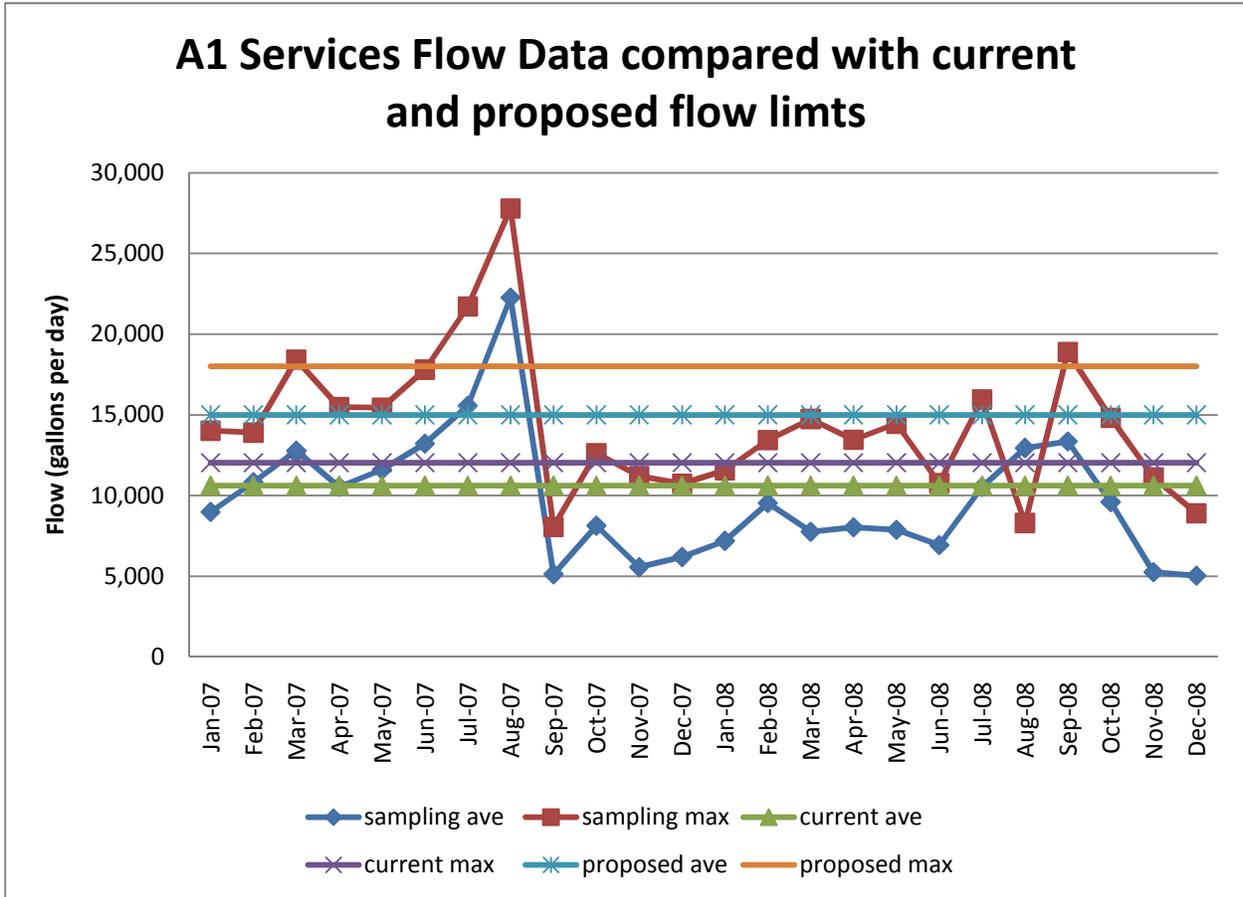


Figure 3– BOD5 and TSS Data and Limits

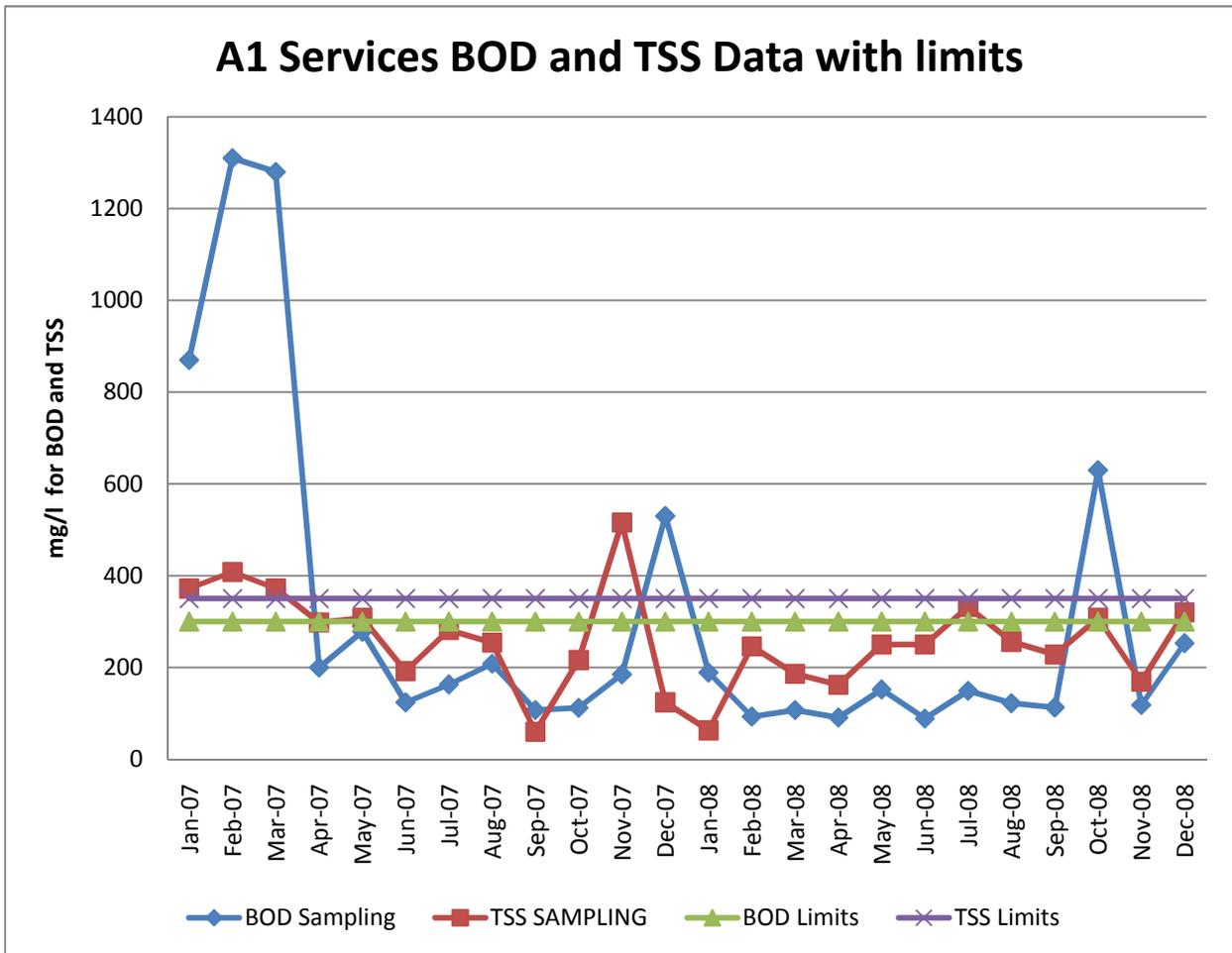


Figure 4— pH Data and Limits

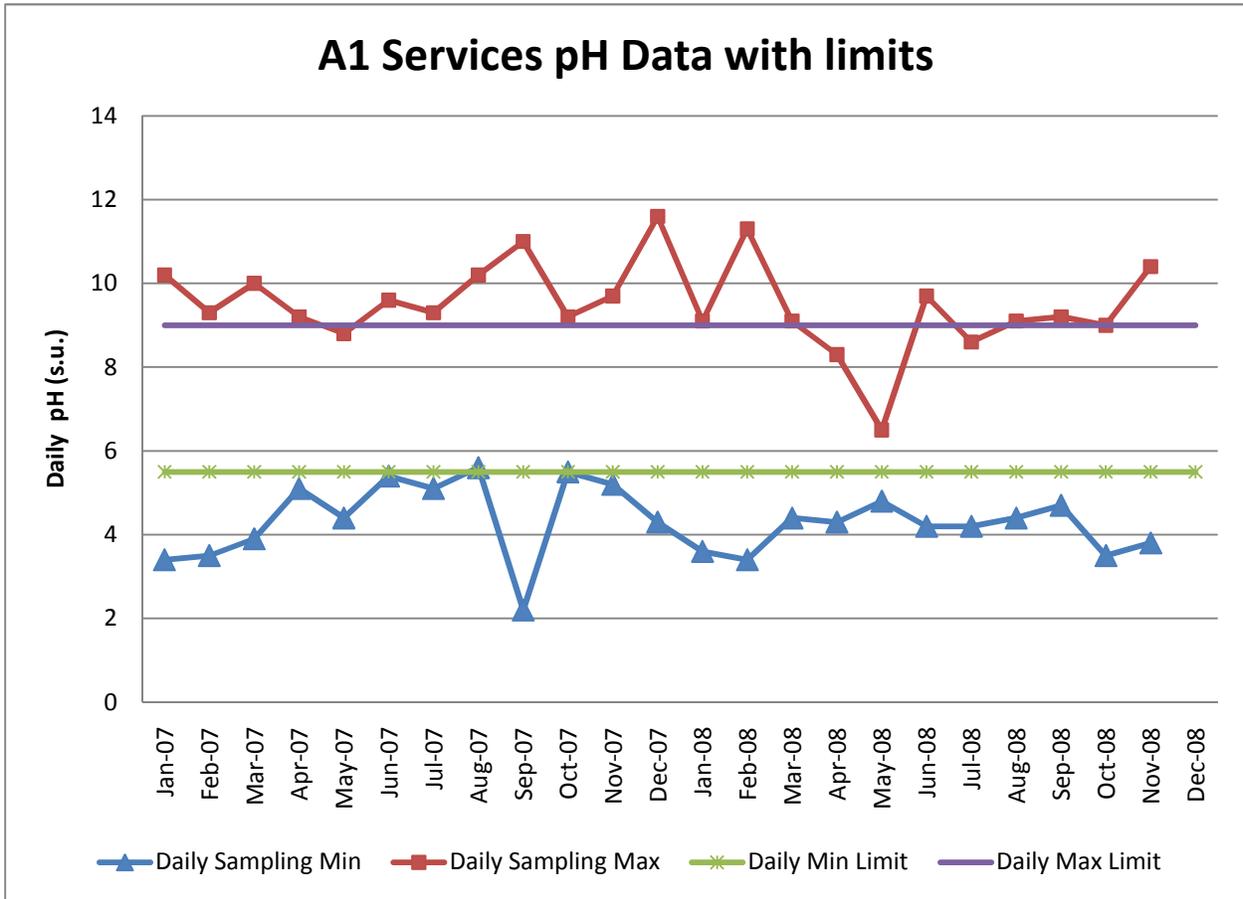


Figure 5– Production Schematic and Flow Balance

ATTACHMENT C.1: PRODUCTION SCHEMATIC AND FLOW BALANCE

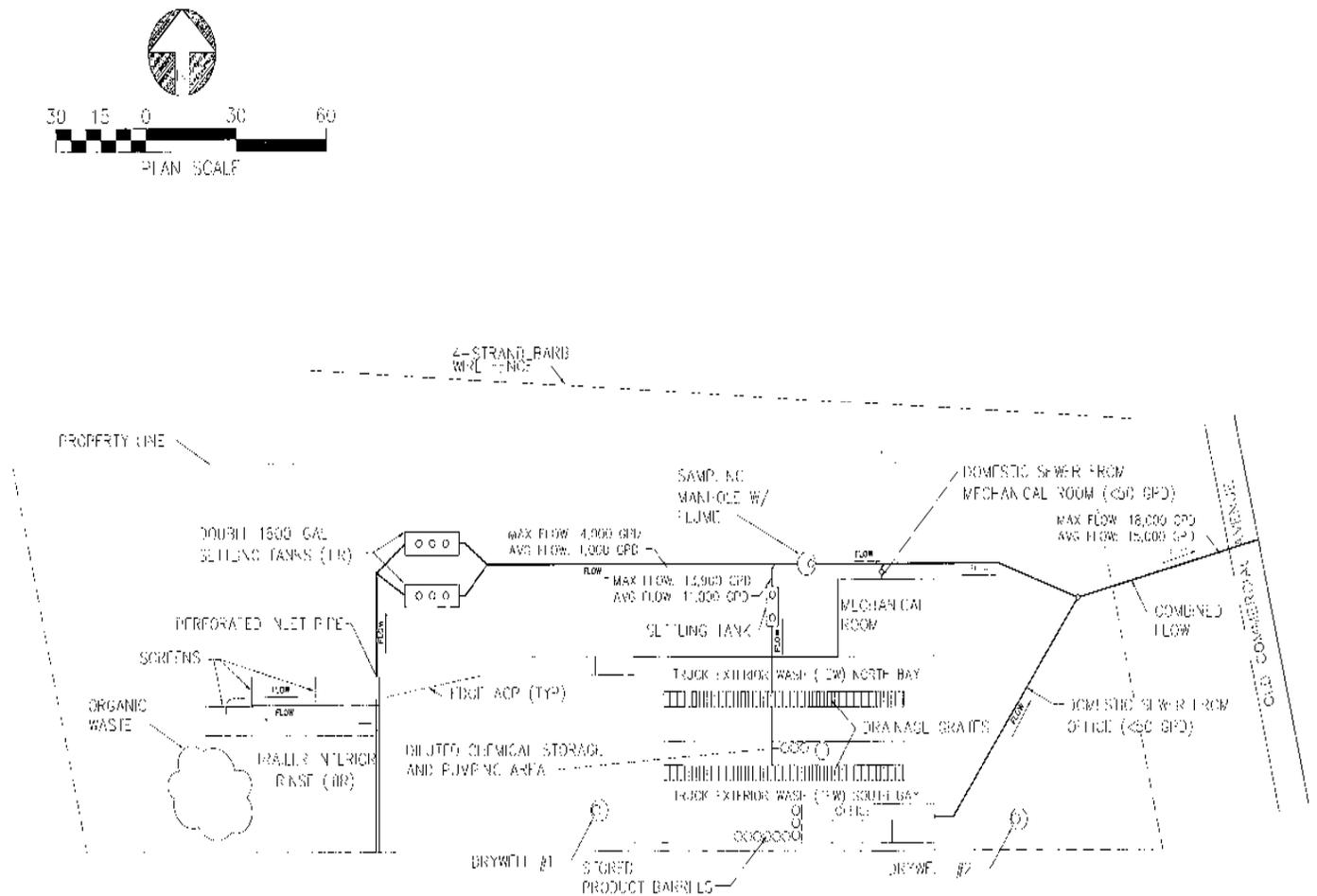
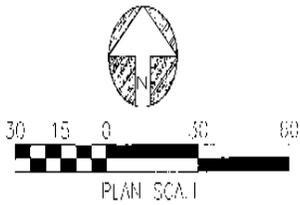
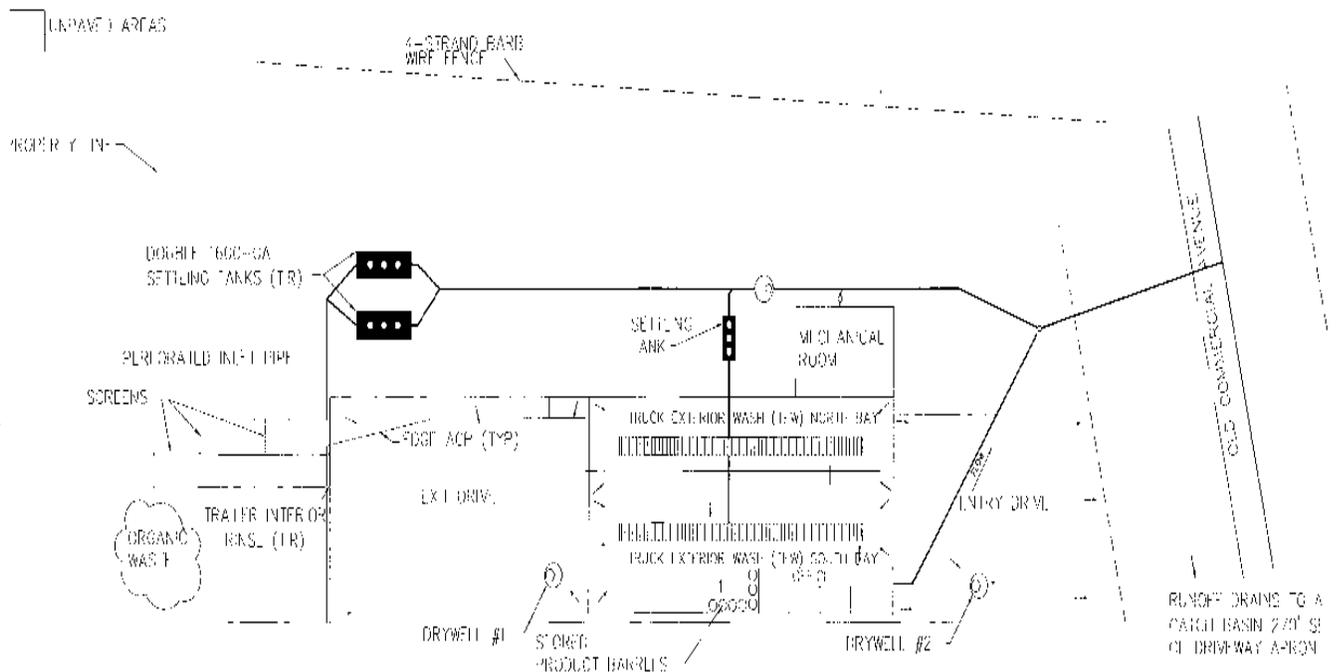


Figure 6—Stormwater Drainage Map



ATTACHMENT H.8: STORMWATER DRAINAGE MAP





Focus on Solid Waste Control Plan

from Ecology's Water Quality Program

Developing a Solid Waste Control Plan for Industrial Wastewater Discharge Permittees

Who must file a solid waste control plan?

The Washington Department of Ecology (Ecology) Water Quality program requires certain facilities to create and submit a solid waste control plan (SWCP) if the mismanagement of solid waste generated by a facility could pollute waters of the state. The SWCP must address all solid waste generated by your facility *except* those wastes properly designated and managed under Washington State's Dangerous Waste Regulations, Chapter 173-303 WAC.

Ecology identified your facility as one that needs a SWCP. This focus sheet is to help you develop, update, or modify your facility's SWCP.

What are your responsibilities?

You are responsible for the safe and legal management of solid waste resulting from your industrial activities. Businesses typically manage common office wastes or municipal solid wastes through county or city sponsored collection systems. But other wastes—such as industrial sludge, incinerator ash, or food processing wastes—usually require special handling and delivery to an approved facility operating in accordance with state and local solid waste requirements.

You are also responsible for preparing and understanding the details of your facility's SWCP and ensuring your staff follow the most current plan. Any proposed modifications to your SWCP should be submitted to Ecology's Water Quality permit writer at least 30 days prior to the proposed date of implementation.

Where should you begin?

Step 1

If you send solid waste off site for treatment, reuse, or disposal:

Confirm that the carrier and the recipient of the waste operate lawfully. Companies that accept solid waste for disposal, treatment, or reuse, must comply with local health department and state solid waste rules. If you are uncertain about the compliance status of a solid waste facility, contact the local health department with jurisdiction over the facility. Contact information for local health departments is online: <http://www.doh.wa.gov/LHJMap/LHJMap.htm>.

If all of the solid waste is managed on site:

Contact your local health department. Staff from the local health department or Ecology's Solid Waste Program can assist you with determining your facility's need for a solid waste permit.

Other information is available from Ecology's solid waste staff. Regional phone numbers are listed at the end of this focus sheet. Ecology staff may also help you identify beneficial uses for your facility's solid waste as alternatives to disposal.

Step 2

Compile contact information for your facility and for any facility receiving your solid waste. Review the generation rates for each type of solid waste your facility produces. Include any other information that helps document your legal solid waste management practices.

February 2007

07-10-024

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FACT SHEET FOR STATE WASTE DISCHARGE PERMIT ST-8090
AI Quality Services

Step 3

After you assemble all the necessary information, follow the outline below to develop, update, or modify your SWCP.

Basic Elements of a solid waste control plan:

- Name and address of facility generating solid waste.
- Wastewater Discharge permit number.
- Name, phone number, and title for the facility's primary contact person.
- A list of each type of solid waste generated by the facility.
- A list of any solid waste permits issued for on-site management of solid waste.
- Estimation of the annual generation of each type of solid waste.
- Description of methods of treatment/handling/disposal for each type of solid waste.
- Description of any contingency plans for solid waste handling.
- Name and contact information for each facility receiving your solid waste.

How will your solid waste control plan be reviewed?

After you submit the SWCP, Ecology staff will review it against state and local requirements. If changes are needed, Ecology will contact you with recommendations so your SWCP can be amended. Solid Waste Program staff will share their findings with the appropriate wastewater discharge permit writer within 30 days of receipt. Once Ecology accepts your SWCP, it becomes part of your industrial wastewater discharge permit.

When do you file your solid waste control plan with Ecology?

Ecology includes a SWCP due date when it issues your water quality discharge permit. You must file your new or updated plan by the close of business on that date. Submit your SWCP in the same manner as you submit other documents required by your wastewater discharge permit. Any proposed modifications to the SWCP must be submitted to Ecology for review at least 30 days prior to implementation.

What if this focus sheet didn't answer all of your SWCP questions?

If you need more information, please call your permit writer or the Solid Waste staff in one of Ecology's regional offices.

Ecology's Regional Offices

Central Regional Office
15 West Yakima Ave., Suite 200
Yakima, WA 98902-3387
509-575-2490

Northwest Regional Office
3190 160th Ave. SE
Bellevue, WA 98008-5452
425-649-7000

Eastern Regional Office
N. 4601 Monroe Street
Spokane, WA 99205-1295
509-329-3400

Southwest Regional Office
300 Desmond Drive
Lacey, WA 98504-7600
360-407-6300

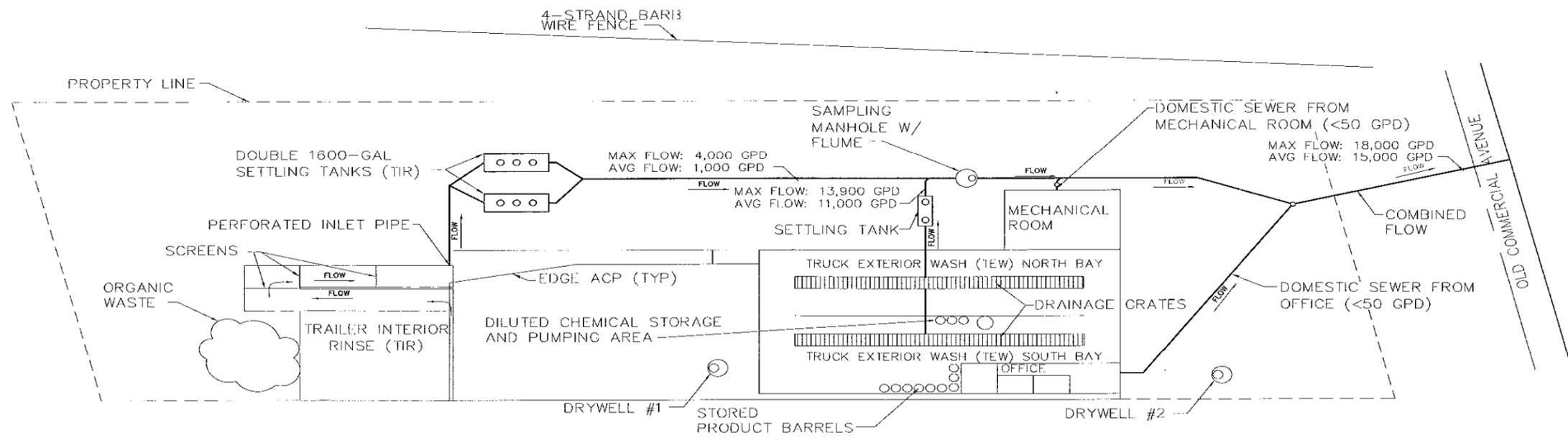
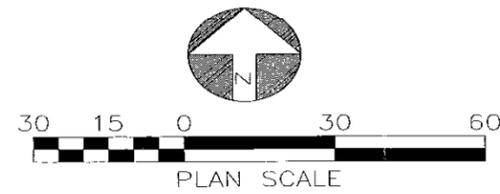
If you need this publication in an alternate format, please call the Water Quality Program at 360-407-6401. Persons with hearing loss can call 711 for Washington Relay Service. Persons with a speech disability can call 877-833-6341.

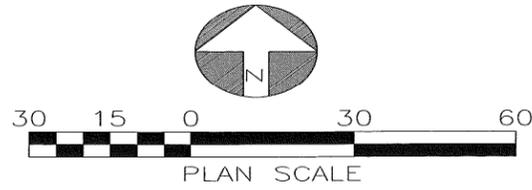
APPENDIX D - RESPONSE TO COMMENTS

The public notice that informed the public that a draft permit was available for review was published in the Tri-City Herald on May 6, 2009. Ecology did not receive any comments on the draft permit following the 30-day public comment period.

APPENDIX E - FACILITY DIAGRAMS

ATTACHMENT C.1: PRODUCTION SCHEMATIC AND FLOW BALANCE





ATTACHMENT H.8: STORMWATER DRAINAGE MAP

