Fact Sheet for State Waste Discharge Permit ST0009148

Ste. Michelle Wine Estates - 14 Hands Winery
December 1, 2018

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 Ste. Michelle Wine Estates 14 Hands Winery that will allow discharge of wastewater to City of Prosser POTW.

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 thirty (30) days before it issues the final permit to the facility operator. Copies of the fact sheet and draft permit for Ste. Michelle Wine Estates 14 Hands, State Waste Discharge permit ST0009148, are available for public review and comment from August 22, 2018 until the close of business September 22, 2018. For more details on preparing and filing comments about these documents, please see **Appendix A - Public Involvement Information**.

Ste. Michelle Wine Estates 14 Hands Winery 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.

The Ste Michelle Wine Estates 14 Hands Winery is located in Prosser, Washington. The winery is located at the site of the old Washington Frontier Juice operation and has been extensively retro-fitted to produce wines. The facility has two large lagoons which provide pre-treatment and evaporation of wastewater before being discharged to the Prosser POTW. The company has a contract with the City of Prosser to discharge generated wastewater at the facility to the Prosser POTW for further treatment.

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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 thirty 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	Ste. Michelle Wine Estates 14 Hands Winery
Facility Name and Address	Ste. Michelle Wine Estates 14 Hands Winery 660 Frontier Rd Prosser, WA 99350
Contact at Facility	Name: Jessica Myer Telephone #: 509/ 875-4233 Jessica.myer@smwe.com
Responsible Official	Name: James Warram Title: Director of Environmental Health and Safety Service Address: PO Box 231 Paterson, WA 99345 Telephone #: 509/ 875-4536
Industrial User Type	Significant Industrial User
Industry Type	Winery
Type of Treatment by Industry	Solids Screening, pH Adjustment, Microbial Inoculation and Aerated Lagoons
SIC Codes	2084
NAIC Codes	31213
Facility Location (NAD83/WGS84 reference datum)	Latitude: 46.21102 Longitude: -119.74639
Treatment Plant Receiving Discharge	City of Prosser POTW
Discharge Location (NAD83/WGS84 reference datum)	Latitude: 46.21019 Longitude: -119.74668
Permit Status	
Issuance Date of Previous Permit	March 31, 2004

Facility Information	
Application for Permit Renewal Submittal Date	March 28, 2013
Date of Ecology Acceptance of Application	April 1, 2013
Inspection Status	
Date of Last Non-sampling Inspection Date	April 21, 2016

Figure 1 Facility Location Maps

A. Facility description

History

Ste. Michelle Wine Estates (SMWE) owns and operates the 14 Hands Winery in Prosser, WA. The facility was originally constructed in 1989 by Washington Frontier Juice to process apple juice. SMWE purchased the facility in 2002 and has since operated the facility as a winery with an associated tasting room. The winery processes grapes for approximately a 60 day period in the fall each year. The remainder of the year is spent aging, blending and bottling wine. 14 Hands Winery produces approximately 1.2 million cases of finished product each year. The Winery also operators a small still that produces neutral grape spirits. The facility discharges process water to lined lagoons. From the lagoons, the water is

discharged to the City of Prosser Wastewater Treatment Plant (WWTP) for final treatment prior to discharge to the Yakima River.

Upon purchase of the facility, SMWE entered into an Industrial User Contract (IUC) with the City of Prosser. The agreement allows 14 Hands to discharge process wastewater to the WWTP within the terms of the contract.

Wastewater pretreatment

In 2015, SMWE constructed a pre-treatment system to aid in the reduction of Biochemical Oxygen Demand (BOD) and Total Suspended Solids (TSS) loading of the wastewater sent to the WWTP. The majority of the wastewater treatment systems were already in place prior to SMWE purchasing the facility in 2002.

14 Hands Winery generates wastewater from non-contact cooling water and from the cleaning of wine tanks, barrels and equipment. The wastewater is routed from inside the production facility into floor drains. The wastewater flows by gravity outside into one of two sumps (North Sump or South Sump) prior to being pumped to the pre-treatment building. All wastewater that collects in the North Sump lift station is pumped to the pre-treatment building. Wastewater generated before entering the South Sump receives some preliminary treatment by means of an inclined mechanical screen. The solids are transported from the screen onto a conveyor and drop into a collection bin for disposal. The wastewater from the screening chamber collects into a 2,500 gal settling tank. The solids settle out in the settling tank and the wastewater decants to the South Sump lift station. The South Sump lift station sends wastewater to the Pre-Treatment Building.

Wastewater that is pumped to the Pre-Treatment Building undergoes further screening. The wastewater is sent through a Wedgewire Waterfall Screen capable of handling flows up to 400gpm and has been designed to remove solids that are 0.5mm and larger. The removal of solids aid in removing BOD/TSS prior to discharging into the lagoon thus limiting the amount of solids build up in the lagoon over time. The removal of solids also reduces the amount of chemicals needed to balance the wastewater before going to the lagoons. The solids captured on the screen fall into a hopper. The hopper drains dewatered wastewater from the collected solids to a floor drain which flows by gravity to the Pre-Treatment Lift Station.

The wastewater that falls through the Wedgewire Waterfall Screen enters the ClearBlu pH adjustment system. The pH adjustment system contains an adjustment tank, pH meter set for continuous monitoring, a peristaltic dosing pump for distributing a 50% concentration of Sodium Hydroxide (NaOH) and a mixing pump. The dosing pump is set to raise the pH above 5.5 SU's. The wastewater is then dosed with dry microbes which in turn are to enhance digestion of organics in the aerated lagoons. Treated wastewater enters the lift station inside the Pre-Treatment Building. The lift station has a capacity of approximately 1,700 gal. All process wastewater flow is monitored prior to being discharged into the lagoons. A Siemens Sitrans FM MAG 5100W electromagnetic flowmeter transmits the flow readings to a digital display. Plant operators record the flow daily.

Solid wastes

Ste. Michelle Wine Estates 14 Hands must acquire appropriate permits from Benton-Franklin and/or Yakima County Health Districts for land application and disposal of solid wastes generated from the fruit processing.

Additional wastes managed at the site may include but not limited to the following: pallets, building materials, office supplies, PPE, yard debris, concrete, insulation, piping, fluorescent bulbs (Universal Waste), and one-time cleanups of hazardous waste

Table 2 Solid Waste Disposal Resources

Solid Waste	Description	Source	Disposal Plan	Disposal Location/ Annual Quantity 2013
Fruit Waste	Seeds, vines, skins, pits, stems	Fruit	Animal feed	Pioneer Enterprises **
Spent Diatomaceous Earth	Filtration Waste	Juice Filtration	Animal feed	Pioneer Enterprises**
Wastewater Sludge	Suspended solids in wastewater	Solids from settling ponds	Animal feed, land application	Pioneer Enterprises**
Metal Drums	Raw product drums	Fruit suppliers	Return to fruit supplier	Various suppliers
Metal - Various	Mild stainless steel, copper, aluminum, black iron	Scrap and parts discards	Recycle	Mayflower Metals As needed; 14,319 lb. 509-786-1818
Used Oil	Spent lubricating oils	Operating equipment	Recycle	RE Powell Distributing 509-882-2115
Lead Acid Batteries	Spent batteries of various sizes	Batteries from fork lifts, vehicles	Recycle	Lower Valley Lift, Napa Auto Parts; as needed
Corrugated Cardboard	New and used corrugated fiber	Product containers, incoming supplies	Recycle	K & S. Recycling * 503-880-7369
Grape Tartrates	Tartaric acid and diatomaceous earth blend	Grape tank bottom filtration	Reprocess to tartaric acid	Faencal – 914-834-4509 242,180 lb 2013
Hard Plastic	Drums, pails, jugs	Packing supplies	Recycle	K & S Recycling * 503-880-7369
Soft Plastic	Shrink wrap, poly liners	Incoming supplies, incoming fruit	Recycle	K & S Recycling * 503-880-7369
Paper	Bags, office paper	Diatomaceous earth bags, office	Recycle	K & S Recycling * 503-880-7369

- * Total pounds of recycling goods shipped to K & S Recycling was 250,100 in 2013.
- ** Total pounds sent to Pioneer Enterprises in 2013: 12,671,000

B. Discharge location to the City of Prosser

There are two single lined lagoons that receive process wastewater (West Lagoon and East Lagoon). The East Lagoon is the larger of the two lagoons having a capacity of 6.0 MG and the West Lagoon having a capacity of 3.5 MG. Process wastewater enters the East Lagoon on the northeast corner. The East Lagoon maintains a 3ft freeboard level and the West maintains a 4 foot freeboard level. There are no methods or apparatuses mentioned for leak detection of the single lined lagoons. Daily observational checks of the two lagoons are performed by operators at this site. Wastewater is able to gravity flow through an equalization pipe between the two lagoons. Both lagoons are aerated to increase digestion of BOD/TSS prior to discharging to the City of Prosser and aeration aids to evaporate some water.

Wastewater is discharged from the West Lagoon to the City of Prosser. The discharge location is at the northwest corner of the West Lagoon. A refrigerated sampler is located at the discharge location which is maintained by the City of Prosser WWTP operators. The City

of Prosser analyzes the wastewater twice weekly during discharge periods. The City of Prosser installed a flowmeter for proper sample analysis during discharging periods.

C. Wastewater characterization

Ste. Michelle Wine Estates 14 Hands Winery reported the concentration of pollutants in the permit application and in discharge monitoring reports. The following tabulated data also includes Ecology inspection monitoring results. The tabulated data represents the quality of the effluent discharged from November 30, 2012 to November 30, 2017. The effluent is characterized as follows:

Table 3 Wastewater Characterization

Parameter	Units	# of Samples	Average Value	Maximum Value
Flow	MGD	2,510	0.015	1.07
Biochemical Oxygen Demand (BOD_5)	mg/L	333	1,911	25,576
Total Suspended Solids (TSS)	mg/L	160	1,903	19,620
Total Dissolved Solids (TDS)	mg/L	185	1,814	7,887
Total Kjeldahl Nitrogen (TKN)	mg/L	148	57.9	625.5
Nitrate (NO_3)	mg/L	167	8.02	117
Ammonia	mg/L	470	1.07	60.5
Chloride	mg/L	185	7.2	355

Parameter	Units	# of Samples	Minimum Value	Maximum Value
pH	Standard Units	141	5.1	10.0

D. Summary of compliance with previous permit issued

The previous permit placed effluent limits on

- pH, in Standard Units ranging from a minimum of 5 and maximum of 11**.**

Ste. Michelle Wine Estates 14 Hands Winery has not consistently complied with the effluent limits and permit conditions throughout the duration of the permit issued on March 31, 2004. Ecology assessed compliance based on its review of the facility's discharge monitoring reports (DMRs) and on inspections conducted by Ecology.

The following table summarizes the violations and permit triggers that occurred during the permit term. Permit triggers are not violations but rather when triggered require the permit holder to take an action defined in the permit.

Table 4 Violations/Permit Triggers

Violation	Date	ViolationCategory	Parameter	DMRValue	MaxLimit	Units	Category
Benchmark Exceedance	3/1/2010 0:00	Permit Trigger	Chloride	224		Milligrams/L (mg/L)	Benchmark Exceedance
Numeric effluent violation	8/1/2012 0:00	Permit Violation	pH (Hydrogen Ion)	79	11	Standard Units	Effluent Violations
Improper/ Incorrect Reporting	5/1/2011 0:00	Permit Violation	Water Elevation		170	Feet	Reporting Violations
Improper/ Incorrect Reporting	5/1/2011 0:00	Permit Violation	Water Elevation		170	Feet	Reporting Violations
Analysis not Conducted	2/1/2014 0:00	Permit Violation					Monitoring Violations

The pH value reported on 8/1/2012 of 79 is not a true value. The pH scale range, 0-14, measures how acidic or basic a substance is when analyzed. It is likely that the pH value reported of 79 should have been 7.9.

The following table summarizes compliance with report submittal requirements over the permit term.

Table 5 Permit Submittals

Submittal	Status	DueDate	ReceivedDate	Approved	ApprovedDate	Reviewer
Solid Waste Control Plan Update		08/30/08				
Engineering		08/01/04				
Revision Sampling & Analysis Plans (Or Sampling Plans)		05/01/05				
O&M - Operation And Maintenance Manual	Approved	10/01/04	09/07/17	N	10/18/17	
O&M - Operation And Maintenance Manual	Approved	10/01/04	05/26/05	Y	06/22/05	
O&M - Operation And Maintenance Manual	Approved	10/01/04	06/30/14	N	07/24/14	
O&M - Operation And Maintenance Manual	Received	10/01/04	09/30/15	N		Coleman Miller
O&M - Operation And Maintenance Manual	Received	10/01/04	08/08/13	N		
Application For Permit Renewal	Received	04/30/08	07/23/08	Y	04/21/09	
Sampling & Analysis Plans (or Sampling Plans)	Received	08/01/04	06/30/14	N		
Engineering: Engineering Report	Received	05/01/05	09/03/15	N		
Solid Waste Control Plan	Received	05/01/05	05/06/05	N		
O&M - Operation And Maintenance Manual (Update)	Received	10/01/05	05/26/05	N		
Signatory Requirements - G1	Received		06/06/07	N		
Signatory Requirements - G1	Received		06/06/07	N		
Signatory Requirements - G1	Received		09/06/13	N		
Signatory Requirements - G1	Received		11/08/13	N		
Industrial User Contract Update	Received		09/11/17	N		
Spill Prevention Plan	Received	05/01/05	05/06/05	N		

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 (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 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, 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 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. Design criteria

Ecology received an engineering report dated August 31, 2015 prepared by James Warram, PE with SMWE. Ecology has chosen not to include the design criteria listed in the engineering report for the report has yet to be approved and the associated construction has already occurred.

B. 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).

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.

The 14 Hands Winery monitors the lagoon levels to assure each of its wastewater lagoons are protected from overtopping and wind blow. Fixed lagoon level gauges extend from the bottom of the lagoon to the top of the full level. The 14 Hands Winery personnel visually observe the water level on each gauge and report the depths. The East Lagoon maintains four feet of freeboard which is measured on the fixed gauge to be at a depth of 216 inches. The West Lagoon maintains three feet of freeboard which is measured on the fixed gauge to be at a depth of 170 inches. The limits for maximum depth of wastewater of 216 inches in the East Lagoon and 170 inches in the West Lagoon will remain in the proposed permit.

C. Effluent limits based on local limits

To protect the City of Prosser Wastewater Treatment Facility 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 Prosser Wastewater Treatment Facility and codified in ordinance. Ecology's pretreatment program delegation agreement with EPA includes language in which Ecology agreed to enforce limits by non- programs (local limits). Applicable limits for discharge include the following parameters delegated in the Schedule A.

On January 1, 2017 the City of Prosser provided Ste. Michelle Wine Estates 14 Hands with an updated Industrial User Contract (Schedule A). The allowable wastewater discharges to the Prosser POTW may exceed monthly contract allocations so long as the quarterly amount does not exceed the peak quarterly amount listed. Therefore the peak quarterly totals become the discharge limits.

The draft permit requires 14 Hands Winery to submit any modified Industrial Wastewater User Contract within one week of a signed and dated modification (S3.K Industrial Wastewater User Contract Modifications).

Table 6 Limits Based on Local Limits

Quarter	Flow Quarterly Limit	BOD Load Quarterly Limit	TSS Load Quarterly Limit
Peak 1st Quarterly	9,000,000 gallons	45,000 lbs	90,000 lbs
Peak 2nd Quarterly	9,200,000 gallons	46,000 lbs	92,000 lbs
Peak 3rd Quarterly	9,200,000 gallons	46,000 lbs	92,000 lbs
Peak 4th Quarterly	4,550,000 gallons	22,750 lbs	45,500 lbs

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

D. Comparison of effluent limits with the previous permit issued on March 31, 2004.

Table 7 Previous Industrial User Contract (Schedule A) Limits

Month	Average Daily Flow (gallons per day)	Average Daily BOD Loading (pounds per day)	Average Daily TSS Loading (pounds per day)
January	50,000	209	500
February	50,000	209	500
March	50,000	209	500
April	50,000	209	500
May	50,000	209	500
June	50,000	209	500
July	50,000	209	500
August	50,000	209	500
September	0	0	0
October	0	0	0
November	0	0	0
December	50,000	209	500

Table 8 Current Industrial User Contract (Schedule A) Quarterly Limits

Quarter	Flow Quarterly Limit	BOD Load Quarterly Limit	TSS Load Quarterly Limit
Peak 1st Quarterly	9,000,000 gallons	45,000 lbs	90,000 lbs
Peak 2nd Quarterly	9,200,000 gallons	46,000 lbs	92,000 lbs
Peak 3rd Quarterly	9,200,000 gallons	46,000 lbs	92,000 lbs
Peak 4th Quarterly	4,550,000 gallons	22,750 lbs	45,500 lbs

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).

B. Wastewater monitoring

Ecology details the proposed monitoring schedule under Special Condition S2.A, B and C. 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.

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 submit, [insert date one year after effective date] 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).

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. Solid waste control plan

The 14 Hands winery could cause pollution of the waters of the state through inappropriate disposal of solid waste or through the release of leachate from solid waste.

The 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. The 14 Hands winery must submit the updated plan to Ecology for approval (RCW 90.48.080).

F. 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.

G. 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].

The proposed permit requires this facility update the spill plan for preventing the accidental release of pollutants to state waters and for minimizing damages if such a spill occurs.

H. Slug discharge plan

Ecology determined that Ste. Michelle Wine Estates 14 Hands Winery 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)(l) (iii)(B)(6) and (f) (2)(vi)].

I. 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 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/permits/guidance.html)

December 2011. *Permit Writer's Manual*, Publication Number 92-109 (https://fortress.wa.gov/ecy/publications/SummaryPages/92109.html)

February 2007. *Focus Sheet on Solid Waste Control Plan, Developing a Solid Waste Control Plan for Industrial Wastewater Discharge Permittees*, Publication Number 07-10-024. http://www.ecy.wa.gov/pubs/0710024.pdf

James E Warram 2015. Ste. Michelle Wine Estates 14 Hands Winery Engineering Report. Ste. Michelle Wine Estates Director of Environmental, Health and Safety Services. Prosser, Washington.

Appendix A—Public Involvement Information

Ecology proposes to reissue a permit to Ste. Michelle Wine Estates - 14 Hands Winery. 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 August 22, 2018 in the Prosser Record Bulletin 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.

NOTICE: ANNOUNCEMENT OF AVAILABILITY OF DRAFT PERMIT

PERMIT NO.: ST0009148

APPLICANT: Ste Michelle Wine Estates
PO Box 231
Paterson, WA 99345

FACILITY: 14 Hands Winery
660 Frontier Road
Prosser, WA

Ste Michelle Wine Estates has applied for renewal of a State Waste Discharge permit in accordance with the provisions of Chapter 90.48 Revised Code of Washington (RCW) and Chapter 173-216 Washington Administrative Code (WAC).

Following evaluation of the application and other available information, a draft permit has been developed which would allow the discharge of wastewater to the City of Prosser POTW collection system from its facility located at 660 Frontier Road, Prosser, WA. All discharges to be in compliance with the Department of Ecology's Water Quality Standards for a permit to be issued.

A tentative determination has been made on the effluent limitations and special permit conditions that will prevent and control pollution. A final determination will not be made until all timely comments received in response to this notice have been evaluated.

PUBLIC COMMENT AND INFORMATION

The draft permit and fact sheet may be viewed at the Department of Ecology (Department) website: https://fortress.wa.gov/ecy/paris/PermitDocumentSearch.aspx?PermitNumber=ST0009148&FacilityName=&City=&County=&Region=0&PermitType=0. The application, fact sheet, proposed permit, and other related documents are also available at the Department's Central Regional Office for inspection and copying between the hours of 8:00 a.m. and 5:00 p.m., weekdays. To obtain a copy or to arrange to view copies at the Central Regional Office, please call Jackie Cameron at (509) 575-2027, e-mail jackie.cameron@ecy.wa.gov , or write to the address below.

Interested persons are invited to submit written comments regarding the proposed permit. All comments must be submitted by September 22, 2018 to be considered for the final determination. Comments should be sent to: Cynthia Huwe, WQ Permit Coordinator, Department of Ecology, Central Regional Office, 1250 West Alder Street, Union Gap, WA 98903-0009.

E-mail comments should be sent to cynthia.huwe@ecy.wa.gov . Submit comments online at http://ws.ecology.commentinput.com/?id=T8Ck9 :

Any interested party may request a public hearing on the proposed permit within 30 days of the publication date of this notice. The request for a hearing shall state the interest of the party and the reasons why a hearing is necessary. The request should be sent to the above address. The Department will hold a hearing if it determines that there is significant public interest. If a hearing is to be held, public notice will be published at least 30 days in advance of the hearing date. Any party responding to this notice with comments will be mailed a copy of a hearing public notice.

Please bring this public notice to the attention of persons who you know would be interested in this matter. The Department is an equal opportunity agency. If you need this publication in an alternate format, please contact us at (509) 575-2490 or TTY (for the speech and hearing impaired) at 711 or 1-800-833-6388.

Publication date of this Notice is August 22, 2018.

Ecology has published a document entitled *Frequently Asked Questions about Effective Public Commenting*, which is available on our website at https://fortress.wa.gov/ecy/publications/SummaryPages/0307023.html.

You may obtain further information from Ecology by telephone, 509-575-2490, or by writing to the address listed below.

Water Quality Permit Coordinator
Department of Ecology
Central Regional Office
1250 W. Alder Street
Union Gap, WA 98903-0009

The primary author of this permit and fact sheet is Erik Van Doren.

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
Department of Ecology Attn: Appeals Processing Desk 300 Desmond Drive SE Lacey, WA 98503	**Department of Ecology** Attn: Appeals Processing Desk PO Box 47608 Olympia, WA 98504-7608
Pollution Control Hearings Board 1111 Israel RD SW STE 301 Tumwater, WA 98501	**Pollution Control Hearings Board** 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 month time taking into account zero discharge days.

Average monthly discharge limit -- The average of the measured values obtained over a calendar month 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_5 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 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) -- 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,or 5) x 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_5 -- 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_5 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_5 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 E—14 Hands Data Summary Analysis Results

Monitoring Point 1	
Monitoring Point Id :	Flow to POTW
Parameter	Flow
Units	MGD
Statistical Base	Total
Limits	- / -
Benchmarks	- / -
Design Limit	
Date	Value
1/1/2013	0.132
2/1/2013	0.127
3/1/2013	0.165
4/1/2013	0.268
5/1/2013	0.257
6/1/2013	0.135
7/1/2013	0.007
8/1/2013	0.144
9/1/2013	0.357
10/1/2013	0.793
11/1/2013	0.551
12/1/2013	0.164
1/1/2014	0.18
2/1/2014	0.169
3/1/2014	0.16
4/1/2014	0.211
5/1/2014	0.182
6/1/2014	0.184
7/1/2014	0.187
8/1/2014	0.193
9/1/2014	0.694
10/1/2014	1.352
11/1/2014	4.585
12/1/2014	0.172
1/1/2015	0.245
2/1/2015	0.126
3/1/2015	0.133
4/1/2015	3.363
5/1/2015	0.249
6/1/2015	0.202
7/1/2015	0.461
8/1/2015	0.36
9/1/2015	0.305
10/1/2015	0.213
11/1/2015	0.049
12/1/2015	0.038
1/1/2016	0.031
2/1/2016	0.034
3/1/2016	0.03
4/1/2016	0.024
5/1/2016	0.026
6/1/2016	0.021
7/1/2016	0.021
8/1/2016	0.021
9/1/2016	0.067
10/1/2016	0.21
11/1/2016	0.031
12/1/2016	0.019
1/1/2017	0.016
2/1/2017	0.05
3/1/2017	0.049
4/1/2017	0.037
5/1/2017	0.077
6/1/2017	0.03
7/1/2017	0.017
8/1/2017	0.0328
9/1/2017	0.051
10/1/2017	1.35
11/1/2017	1.151
12/1/2017	0.313
Min	0.007
Max	4.585
Average	0.37003
Median	0.167
95th Percentile	1.3819

Monitoring Point 2
Monitoring Point Id : Lagoon 1 West

Parameter	Ammonia	Biochemical	Chloride	Nitrate	pH	pH	Solids (Residue)	Solids	TKN	Water Depth	Water Elevation
Units	Milligrams/L	Milligrams/L	Milligrams/L	Milligrams/L	Standard Units	Standard	Milligrams/L	Milligrams/L	Milligrams/L	Inches	Feet
Statistical Base	Average	Average	Average	Average	Maximum	Minimum	Average	Average	Average	Maximum	Maximum
Limits	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 170	- / 170
Benchmarks	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Design Limit											
Date	Value	Value	Value	Value	Value	Value	Value	Value	Value	Value	Value
1/1/2013	0.2	1234	103	0.7	7.6	7.55	3058	1650	175.9		170
2/1/2013					7.1	7					
3/1/2013	0.2	3535	88.9	8.3	7.4	5.5	3680	160	77.7		170
4/1/2013					8.1	8					
5/1/2013	0.2	722.4	154	0.2	8.2	7.8	2277	2100	110.3		170
6/1/2013					7.9	7.7					
7/1/2013	0.2	722.4	154	0.2	8.2	7.8	2277	2100	110.3		170
8/1/2013					7.9	7.9					
9/1/2013	0.3	54.9	189	13.3	8.45	7.6	1692	204	15.6		170
10/1/2013					7.2	6.8				170	
11/1/2013	0	3500	34.7	0	7.58	7.4	1030	2930	139		14.17
12/1/2013										170	
1/1/2014	0.052	12700	59	0.1	6.87	5.7	3010		47.4		170
2/1/2014					5.8	5.3					
3/1/2014	0.301	3600	36.4	0.25	6.9	4.6	3190		98		170
4/1/2014					8.3	7.5					
5/1/2014	0.727	350	50.9	0.5	8.2	8.17	2050		186		14.17
6/1/2014					8.3	8.2					
7/1/2014	0.377	380	63	0.5	8.3	8.2	2540		383		170
8/1/2014					8	7.9					
9/1/2014	0.064	440	66.8	0.5	8.3	8	1700		506		156
10/1/2014					4.3	3.8				170	
11/1/2014	0.332	5100	17	1	3.85	3.6	3580		61.2		170
12/1/2014					3.9	3.7				170	
1/1/2015	0.57	2570	30.6	1	5.6	4.3	4230		45.2		170
2/1/2015					8.7	6.9					
3/1/2015	0.76	392	37.3	1	8.1	7.52	4220		201		109
4/1/2015					8	7.4					
5/1/2015	0.819	3800	48.7	1	7.4	5	4600		44		158
6/1/2015					8.4	7.6					
8/1/2015					10	10					
9/1/2015	0.188	500	37.1	1	10	8.06	2810		42.8		161
10/1/2015					7	7				168	
11/1/2015	0.367	6500	40	1	5.2	4.5	5360		53.6		168
12/1/2015					5.6	5.5				170	
1/1/2016	0.221	5960	27.2	1	7.8	7.37	2030		50.8		170
2/1/2016					8.5	8.1					
3/1/2016	0.296	117	51.4	1	8.6	8	2880		97.6		147
4/1/2016					7.93	6.6					
5/1/2016	7.37	520	58.9	1	8.2	7.7	3100		1.61		131
6/1/2016					8.8	8.32					
7/1/2016	0.469	213	71.5	44.8	8.7	8.48	4380		261		126
8/1/2016					8.74	8					
9/1/2016	0.227	30	67.5	34.7	8.9	8	3650		29		140
10/1/2016					8.6	8.07				138	
11/1/2016	0.286	5500	39	1	6.7	5.54	3210		65.8		170
12/1/2016					6.62	6.1				170	
2/1/2017					7.15	7					
3/1/2017	0.061	4300	42.4	1	7.8	7.28	6210		151		170
4/1/2017					7.6	7.4					
5/1/2017	0.07	430	28.5	1	8	7.92	1910		103		170
6/1/2017					8.8	8.6					
7/1/2017	60.5	38	37.9	1	8.8	8.6	1810		58.2		170
8/1/2017					8.2	8.15					
9/1/2017	0.299	34	42.1	7.7	8.43	7.9	1610		11.2		168
10/1/2017					6.9	6.18				170	
11/1/2017	0.254	7800	30.1	0.5	4.8	4.32	2240		35		170
12/1/2017					3.9	3.85				170	
Min	0	30	17	0	3.85	3.6	1030	160	1.61	138	14.17
Max	60.5	12700	189	44.8	10	10	6210	2930	506	170	170
Average	2.7060714429	2558.6679	60.360714	4.4732143	7.529473684	6.9645614	3011.928571	1524	112.300357	166.6	150.4407143
Median	0.291	857.2	45.55	1	8	7.52	2945	1875	71.75	170	170
95th Percentile	5.07715	7345	154	27.21	8.82	8.504	5034	2722.5	340.3	170	170

Monitoring Point 3
Monitoring Point Id : Lagoon 2 East

Parameter	Ammonia	Biochemical	Chloride	Nitrate	pH	pH	Solids (Residue)	Solids	TKN	Water Depth
Units	Milligrams/L	Milligrams/L	Milligrams/L	Milligrams/L	Standard Units	Standard	Milligrams/L	Milligrams/L	Milligrams/L	Inches
Statistical Base	Average	Average	Average	Average	Maximum	Minimum	Average	Average	Average	Maximum
Limits	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 216
Benchmarks	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Design Limit										
Date	Value	Value	Value	Value	Value	Value	Value	Value	Value	Value
1/1/2013					8.7	8.7				185
2/1/2013	0.2	462.2	76.6	0.9	7.9	7.3	3383	480	21.9	186
3/1/2013					8.1	7.5				133
4/1/2013	0.2	153.9	177	0.5	8.48	8.4	3370	1167	41.1	139
5/1/2013					8.4	8.3				142
6/1/2013	0.2	111.8	276	17.4	8.9	8.1	2900	740	79.5	142
7/1/2013					8.5	8.1				140.5
8/1/2013	0.2	196.4	346	17.6	9.1	8.84	7887	5434	625.5	133
9/1/2013					9.2	8.4				141
10/1/2013	0.4	65.5	355	7.6	8.82	8.4	2983	600	66.3	171
11/1/2013					8.2	8.2				187.5
12/1/2013										201
1/1/2014					6.6	6.2				199
2/1/2014	0.743	1350	62.6	0.1	6.9	6.1	2970		31.7	178
3/1/2014					7.8	7.3				197
4/1/2014	0.109	360	60.3	0.25	8.4	7.9	2460		93.2	184
5/1/2014					8.4	8.2				182.5
6/1/2014	0.904	146	69.6	49.9	8.57	8.3	3370		113	158
7/1/2014					8.6	8.5				116
8/1/2014	1.5	240	88	54.4	8.66	8.3	3760		388	93.5
9/1/2014					8.1	8				71
10/1/2014	0.439	626	54.3	1	7.88	6.7	2890		31.4	137
11/1/2014					4.8	4.4				158
12/1/2014	0.428	3640	36.8	1	4.9	4.6	3930		89.6	172
1/1/2015					4.9	4.6				185.5
2/1/2015	0.05	1660	30.2	1	7.6	5.1	3150		92	186
3/1/2015					8.1	7.4				163
4/1/2015	2.34	430	38.8	1	8.7	8.05	2310		234	137.5
5/1/2015					8.1	7.1				123.5
6/1/2015	0.399	450	49.5	1	8.6	8.08	2620		134	119
7/1/2015					9.1	8.4				129
8/1/2015	3.56	248	95.3	37.1	8.57	8	3050		0.82	108
9/1/2015					9	8				101
10/1/2015	0.131	460	66.2	1	10	8.1	3420		105	134
11/1/2015					8.4	8.1				156
12/1/2015	0.013	510	53.3	1	8.3	7.86	3340		64	174.5
1/1/2016					7.9	7.9				177
2/1/2016	0.296	640	55.5	1	8.5	8	3530		63.6	186
3/1/2016					9.1	8.1				169
4/1/2016	0.86	270	59.5	11	8.75	6.6	3490		168	132
5/1/2016					9.3	8.1				116
6/1/2016	0.622	227	86.9	32.2	9.3	8.93	4660		197	114
7/1/2016					9.3	8.9				113
8/1/2016	1.89	267	118	117	8.99	7.7	5610		519	104
9/1/2016					8.84	7.8				110
10/1/2016	0.27	46	70.3	40.5	9.05	7.6	3700		65.2	184
11/1/2016					8.9	7.75				206
12/1/2016	4.99	780	44.9	1	8.2	7.9	2970		83	190
2/1/2017	0.455	1730	23.7	1	7.7	7.17	1760		16.6	180
3/1/2017					7.6	7.5				197
4/1/2017	0.202	159	47.4	1	8.41	7.9	2220		2.64	181
5/1/2017					8.46	8.3				158
6/1/2017	0.05	12	47.6	24.6	9.6	8.86	2750		21.6	172
7/1/2017					10	9.6				158
8/1/2017	0.323	20	60.2	40.2	8.98	8.8	3260		21.4	148
9/1/2017					9.2	9.15				180
10/1/2017	0.05	15	59	29	9.06	7.9	3010		25.6	194
11/1/2017					8.8	7.51				206
12/1/2017	0.05	340	43.9	0.25	7.52	6.9	1930		77.8	204
Min	0.013	12	23.7	0.1	4.8	4.4	1760	480	0.82	71
Max	4.99	3640	355	117	10	9.6	7887	5434	625.5	206
Average	0.758413793	538.68276	91.462069	16.948276	8.357586207	7.73103448	3335.965517	1684.2	119.74	156.6610169
Median	0.323	270	60.2	1	8.535	8	3150	740	77.8	158
95th Percentile	3.072	1702	318	52.6	9.345	8.9045	5230	4580.6	466.6	201.3

Appendix F—Response to Comments

Revised October 25, 2018

The Department of Ecology's Public Notice of Draft Permit (PNOD) announcement and commenting period for the *14 Hands Winery* draft permit began on August 22, 2018 and ended on September 22, 2018.

The public notice announcement requested that comments be sent via e-mail to cynthia.huwe@ecy.wa.gov or submit comments online at http://ws.ecology.commentinput.com/?id=T8Ck9.

On October 15, 2018, Ecology received notification it had not addressed comments about the draft permit that Ste. Michelle Wine Estates submitted online, during the comment period.

These comments are as follows:

Ste. Michelle Wine Estates - 14 Hands Winery comments

Permit section S2.C. Groundwater Monitoring (page 8 of 40) stipulates groundwater monitoring must be performed. Fact Sheet Section IV Monitoring Requirements cites WAC 173-216-110 as the umbrella authority for monitoring, however, paragraph B. Wastewater monitoring (page 15 of 33) does not provide the rational or criterion used to reach the conclusion groundwater monitoring is necessary for this particular facility.

The facility does not discharge to surface waters. The facility is not a categorical discharger. The facility is not located in a groundwater management area, subarea, or zone. And the facility does not land apply wastewater. Therefore, we respectfully request the Department of Ecology provide a technical explanation documenting the rational for requiring groundwater monitoring at this facility, including criteria used to determine applicability of groundwater monitoring, supporting data, and assumptions used to make the decision.

Ecology's response to comments

The Department of Ecology's *Criteria for Sewage Works Design* (CSWD), is an Ecology prepared manual intended to address requirements that lead to approvable plans and specifications for sewage treatment works and sewerage systems. Although the CSWD manual is not a regulation, state regulation (WAC 173-240-120) requires reasonable consistency with the CSWD requirements.

Special considerations for single lined lagoons are addressed in the CSWD, located in Section G3-3.5.2(2) Ponds and Aerated Lagoons Design Criteria.
https://fortress.wa.gov/ecy/publications/documents/9837.pdf

> (2) Geomembrane single liner with ground water monitoring: For systems with a single geomembrane liner, Ecology will require a system of ground water monitoring wells. The ground water monitoring system must be able to detect both up-gradient and down-gradient ground water contaminant levels. The owner/operator must submit the proposed system and must obtain Ecology approval prior to installation. The owner/operators must

> demonstrate continued compliance with the ground water standards. Compliance must be demonstrated by ensuring ground water contaminant levels do not exceed the enforcement limits. Ecology will establish enforcement limits during the permitting process as described in Chapter 173-200 WAC.

The CSWD language is Ecology's rationale for the permit's *S2.C. Groundwater Monitoring* requirement.

However, the permit's *S2.F Request for reduction in monitoring* provision, allows the permittee to:

> The Permittee may request a reduction of the sampling frequency after twelve (12) months of monitoring. Ecology will review each request and at its discretion grant the request when it reissues the permit or by a permit modification.
>
> The Permittee must:
>
> 1. Provide a written request.
> 2. Clearly state the parameters for which it is requesting reduced monitoring.
> 3. Clearly state the justification for the reduction.

Ecology will carefully consider any such request.