

Fact Sheet for State Waste Discharge Permit ST0009272

Desert Wind Winery

November 30, 2020

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 Desert Wind Winery (Desert Wind) that will allow discharge of wastewater to the City of Prosser publicly-owned treatment works (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 Desert Wind, State Waste Discharge permit ST0009272, are available for public review and comment from October 21, 2020 until the close of business November 23, 2020. For more details on preparing and filing comments about these documents, please see **Appendix A - Public Involvement Information**.

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

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

Summary

Desert Wind is seeking issuance of a State Wastewater Discharge Permit for its facility in Prosser, WA. Ecology last issued a permit to Desert Wind on August 30, 2011. Desert Wind discharges winemaking process and domestic wastewater to the City of Prosser's POTW.

A modification to the previous issued permit took place on August 3, 2012, approximately a year after it was issued. The modification to the State Waste Discharge Permit for Desert Wind was the result of Ecology's Permitting and Reporting Information System (PARIS) lacking the ability to populate a violation as described in footnote 3 of

the industrial user contract (IUC) Schedule A. The modification also included changing the IUC quarters into standard yearly quarters.

The City of Prosser provided a new IUC to Desert Wind which becomes effective January 1, 2020. The proposed permit reflects the limits established in the IUC between the City of Prosser and Desert Wind. The proposed permit requires quarterly reporting to Ecology.

Monitoring of the wastewater is conducted through contract with Desert Wind and the City of Prosser.

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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	Desert Wind Winery
Facility Name and Address	Desert Wind Winery 2258 Wine Country Road Prosser, WA 99350
Contact at Facility	Name: Benjamin Hieb Telephone #: (509) 786-7277
Responsible Official	Name: Greg Fries Title: President Address: 2258 Wine Country Road, Prosser, WA 99350 Telephone #: (509) 710-1263 FAX # (509) 786-3382
Industrial User Type	Significant Industrial User
Industry Type	Winery
SIC Codes	2084
NAIC Codes	312130
Facility Location (NAD83/WGS84 reference datum)	Latitude: 46.21505 Longitude: -119.74722
Treatment Plant Receiving Discharge	City of Prosser Wastewater Treatment Facility
Discharge Location (NAD83/WGS84 reference datum)	Latitude: 46.21405 Longitude: -119.76432
Permit Status	
Issuance Date of Previous Permit	August 30, 2011
Application for Permit Renewal Submittal Date	November 16, 2015
Date of Ecology Acceptance of Application	November 19, 2015
Inspection Status	
Date of Last Non-sampling Inspection Date	August 8, 2019

Figure 1 - Facility Location Map



A. Facility description

History

Desert Wind Winery (Desert Wind) is the original name of the vineyard site planted by the Fries Family in 1993. The name refers to the climate in eastern Washington where the vineyard is planted. The winery released the brand to the public in 2001; it opened in February 2007.

Desert Wind is located in and is connected to the City of Prosser wastewater treatment plant from the East Prosser Industrial Park, located in the eastern portion of the city, south of the Yakima River. Other facilities located in this area include Tree Top, Inc., Hogue Cellars, Mercer Wine Estates, 14 Hands Winery, and Zirkle Fruit, and Kenyon Zero. The City extended its collection system to service this area in 2002.

Desert Wind is housed in two buildings- the production facility and the tasting room/hospitality center. The hospitality center includes a large tasting room and gift

shop, a 3,265 sq. ft. banquet facility, a 2,500 sq. ft. restaurant and demonstration kitchen, and four guest rooms ranging in size from 528 – 624 sq. ft.

The production facility is housed in a 16,200 sq. ft. building adjacent to the hospitality center. Wine making processes at Desert Wind include crushing grapes, pressing, filtering, and bottling of finished wine.

Industrial process(s)

Harvested grapes are crushed and the fermentation process begins usually in September continuing into November. Post-harvest activities include wine finishing and bottling throughout the remainder of the year. Desert Wind expects to process approximately 1,600 tons of grapes and 12,000 cases of wine each year.

Small quantities of chemicals are used in the wine making process. The chemicals used during the wine making process and cleaning process at Desert Wind are as follows:

Table 2 - Wine Making and Cleaning Chemicals

Chemical Name	Use
Caustic Soda	Used for cleaning in conjunction with citric acid
Citric Acid	Used for cleaning in conjunction with citric acid and/ or trisodium phosphate
Cream of Tartar	Naturally occurring component of wine use to “see” crystal formation, potassium bitartrate precipitates
Potassium Metasulfite	Wine preservative primarily, occasionally used in the cleaning process
Potassium Carbonate	Used to raise pH of wine, does not end up in waste stream
Tartaric Acid	Used to lower pH of wine, does not end up in waste stream
Trisodium Phosphate	Used for cleaning in conjunction with citric acid

Wastewater pretreatment

Desert Wind generates wastewater on the crush pad and from inside the production facility. The two waste streams, combined, make up the wastewater discharge to the Prosser POTW. Wash water from crush/press equipment, tank washes, barrel washes and bottling equipment are processes that generate wastewater. Desert Wind uses a combination of caustic soda, trisodium phosphate, and citric acid for pH neutralization. Prior to releasing wastewater from process tanks, the pH is checked

via a bench top probe. All wastewater generated on the crush pad flows to a sump drain. A small sump pump, transfers the water from the sump drain to a collection vault, located near the northeast corner of the production facility. All wastewater generated in the production facility flows through floor drains and empties to the same collection vault. Wastewater flows from the collection vault toward an onsite lift station. An all-weather shelter near the lift station houses a refrigerated sampling unit and flow meter display. Wastewater operators with the City of Prosser maintain the sampler and obtain samples as well as flow measurements for reporting. Desert Wind contracts with Davis Pumps of Sunnyside, for lift station maintenance.

Solid wastes

Grape skins, stems, seeds, screenings, diatomaceous earth, and lees are solid wastes generated at Desert Wind. Solid wastes are hauled from the Desert Wind facility to R&R Hauling composting site in Grandview WA.

B. Discharge location to the City of Prosser POTW

Wastewater from Desert Wind facility lift station is located in the northwest corner of the facility site. The lift station conveys wastewater toward the City of Prosser’s industrial collection system lift station #5 near Wine Country Rd. and WA-22.

C. Wastewater characterization

Desert Wind reported the concentration of pollutants in the permit application and in discharge monitoring reports. The tabulated data represents the quality of the effluent discharged from January 2016 through June 2019. The effluent is characterized as follows:

Table 3 - Wastewater Characterization

Parameter	Units	Average Value	Maximum Value
Flow	gal/day	831	8000
Biochemical Oxygen Demand (BOD ₅)	mg/L	10,055	40,700
Biochemical Oxygen Demand (BOD ₅)	lbs/day	84	883
Total Suspended Solids (TSS)	mg/L	986	22,160
Ammonia-NH ₃	mg/L	5.15	85.1
Ammonia-NH ₃	lbs/day	0.00003	0.57
Parameter	Units	Minimum Value	Maximum Value
pH	Standard Units	3.6	9

The tabulated data below represents reported quarterly values and IUC values. Quarters are defined as: (1st Jan-Mar, 2nd Apr-Jun, 3rd Jul-Sept, 4th Oct-Dec).

Table 4 - Wastewater Characterization: Reported Quarterly Values vs Permit Limits

Quarter Year	Quarterly Reported Value Gallons	Quarterly Limit Gallons	Quarterly Reported Value BOD Pounds	Quarterly Limit BOD Pounds	Quarterly Reported Value TSS Pounds	Quarterly Limit TSS Pounds
1 st 2016	24,000	675,000	707	16,995	84	1,890
2 nd 2016	33,900	682,500	1742	10,920	102	1,911
3 rd 2016	73,600	690,000	1456	14,190	55	1,932
4 th 2016	54,000	690,000	3,059	20,700	489	3,396
1 st 2017	22,800	675,000	727	16,995	69	1,890
2 nd 2017	17,600	682,500	606	10,920	16	1,911
3 rd 2017	6,800	690,000	270	14,190	7	1,932
4 th 2017	61,880	690,000	2,493	20,700	353	3,396
1 st 2018	9,800	675,000	763	16,995	212	1,890
2 nd 2018	21,000	682,500	733	10,920	35	1,911
3 rd 2018	29,900	690,000	830	14,190	32	1,932
4 th 2018	125,5300	690,000	3,448	20,700	398	3,396
1 st 2019	47,200	675,000	2,376	16,995	423	1,890
2 nd 2019	9,900	682,500	990	10,920	31	1,911

D. Summary of compliance with previous permit issued

The previous permit placed effluent limits on flow, BOD, TSS, and pH.

Desert Wind has complied with the effluent limits and permit conditions throughout the duration of the permit issued on August 30, 2011. Ecology assessed compliance based on its review of the facility's information in the Ecology Permitting and Reporting Information System (PARIS), discharge monitoring reports (DMRs) and on inspections conducted by Ecology.

The following table summarizes the violations that occurred during the permit term.

Table 5 - Violations/Permit Triggers

Date	Violation	Parameter	Units	Value	Limit
2/1/2014	Frequency of sampling violation	Flow	gal/day	-	2/week
5/1/2014	Frequency of sampling violation	Flow	gal/day	-	2/week
8/1/2014	Numeric effluent violation	pH	Standard Units	3	4
10/11/2016	Numeric effluent violation	pH	Standard Units	3.9	4
11/14/2016	Numeric effluent violation	pH	Standard Units	3.9	4
12/5/2016	Numeric effluent violation	pH	Standard Units	3.8	4
11/28/2017	Numeric effluent violation	pH	Standard Units	3.9	4
11/29/2017	Numeric effluent violation	pH	Standard Units	3.9	4
1/15/2018	Numeric effluent violation	pH	Standard Units	3.9	4
3/14/2018	Numeric effluent violation	pH	Standard Units	3.6	4
5/22/2018	Numeric effluent violation	pH	Standard Units	3.8	4
8/1/2018	Frequency of sampling violation	Flow	gal/day	-	2/week
3/6/2019	Numeric effluent violation	pH	Standard Units	3.9	4
3/11/2019	Numeric effluent violation	pH	Standard Units	3.9	4
6/1/2019	Frequency of sampling violation	Flow	gal/day	-	2/week
6/1/2019	Frequency of sampling violation	BOD	lbs/day	-	2/week
6/1/2019	Frequency of sampling violation	TSS	lbs/day	-	2/week
6/1/2019	Frequency of sampling violation	Ammonia	lbs/day	-	2/week
7/1/2019	Frequency of sampling violation	Flow	gal/day	-	2/week

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

Table 6 - Permit Submittals

Permit Section	Submittal	Submittal Due Date	Submittal Date
G1.	Signatory Requirements (ESAF)	As needed	11/16/2011
G1.	Signatory Requirements (ESAF)	As needed	10/16/2012
S4.A.2.	Operations and Maintenance Manual	3/31/2012	5/28/2013
S8.	Spill and Slug Discharge Plan	3/31/2012	5/28/2013
S7.C.	Solid Waste Control Plan	3/31/2012	5/28/2013
G1.	Signatory Requirements (ESAF)	As needed	6/23/2014
G1.	Signatory Requirements (ESAF)	As needed	11/16/2015
S9.	Application for Permit Renewal	9/30/2015	11/16/2015
G1.	Signatory Requirements (ESAF)	As needed	6/19/2019

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

Under WAC 173-216-110 (4), neither flows nor waste loadings may exceed approved design criteria. The proposed permit requires the facility to submit an updated Operations and Maintenance (O&M) manual to reflect the current pretreatment system components including design criteria.

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). Existing federal categorical limits for this facility are found under 40 CFR Part 403.6

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. Ecology determined the facility meets the minimum requirements demonstrating compliance with the AKART standard and federal effluent guidelines.

C. Effluent limits based on local limits

To protect Prosser 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 Prosser POTW and codified in ordinance. Ecology's pretreatment program delegation agreement with EPA includes language in which Ecology agreed to enforce limits adopted by non-delegated programs (local limits).

The City of Prosser provided Desert Wind with a new Industrial User Contract (IUC) and Schedule A that goes into effect on January 1, 2020. The new IUC replaces the previous contract dated January 9, 2008 and contract amendments dated thereafter. 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 limit listed. Therefore, the peak quarterly totals become the discharge limits.

The City of Prosser municipal code allows no pH discharges lower than 5.0 or greater than 11.0 for industrial users. However, the new IUC allows for a broader allowable pH range based on the ability of the collection system to handle lower pH discharges. The allowance of a lower pH discharge than the municipal code is referenced in Section 4.1 of the new IUC. WAC 173-216-060(2)(iv), allows for a lower limit for pH if the collection system has been specifically designed to accommodate such discharges. The pH range for Desert Wind is 4.0 to 11.0.

The proposed permit requires Desert Wind to submit any modifications to the IUC within one week of a signed and dated modification (S3.K Industrial Wastewater

User Contract Modifications). The IUC will be placed in Appendix B of the permit. In the event the IUC is amended or updated, Ecology can modify the permit to include an updated copy in Appendix B of the permit. The table below lists the limits based on local limits agreed upon between the City of Prosser and Desert Wind.

Table 7 - Limits Based on Local Limits/ Proposed Effluent Limits

Quarter	Flow Quarterly Limit	BOD Load Quarterly Limit	TSS Load Quarterly Limit
Peak 1 st Quarterly ^a	450,000 gallons	11,330 pounds	1,260 pounds
Peak 2 nd Quarterly ^b	455,500 gallons	7,280 pounds	1,274 pounds
Peak 3 rd Quarterly ^c	460,000 gallons	9,460 pounds	1,288 pounds
Peak 4 th Quarterly ^d	460,000 gallons	13,800 pounds	2,264 pounds

^a Months of January through March

^b Months of April through June

^c Months of July through September

^d Months of October through December

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. 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 prepare and submit an updated operation and maintenance (O&M) manual as required by state regulation for the construction of wastewater treatment facilities (WAC 173-240-150). Implementation of the procedures in the operation and maintenance manual ensures the facility's compliance with the terms and limits in the permit. 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. Solid waste control plan

Desert Wind 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 develop a solid waste control plan to prevent solid waste from causing pollution of waters of the state. Desert Wind must submit the plan to Ecology by 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].

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

H. Slug discharge plan

Ecology determined that Desert Wind 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)(I) (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 (<https://ecology.wa.gov/About-us/How-we-operate/Laws-rules-rulemaking>)

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

January 2015. *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.
<https://fortress.wa.gov/ecy/publications/SummaryPages/0710024.html>

Appendix A—Public Involvement Information

Ecology proposes to reissue a permit to Desert Wind. 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 October 21, 2020 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.: ST0009272

**APPLICANT: DESERT WIND WINERY
2258 WINE COUNTRY ROAD
PROSSER, WA 99350**

Desert Wind Winery has applied for 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 winemaking process and domestic wastewater to the City of Prosser's POTW from its facility located at 2258 Wine Country 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://apps.ecology.wa.gov/paris/DocumentSearch.aspx?PermitNumber=ST0009272&FacilityName=&City=&County=&Region=0&PermitType=0&DocumentType=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 e-mail publicrecordsofficer@ecy.wa.gov or write to Public Records Officer, Department of Ecology, PO Box 47600, Olympia, WA 98504..

Interested persons are invited to submit written comments regarding the proposed permit. All comments must be submitted by November 23, 2020 to be considered for the final determination.

Submit comments online at <http://wq.ecology.commentinput.com/?id=P7C3j>. Written 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.

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 October 21, 2020.

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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 St
Union Gap, WA 98903

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

Appendix C—Glossary

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

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

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

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

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

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

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

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

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

Average monthly discharge limit -- The average of the measured values obtained over a calendar months' 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 BOD₅ is not a specific compound, it is defined as a conventional pollutant under the federal Clean Water Act.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Mixing zone -- An area that surrounds an effluent discharge within which water quality criteria may be exceeded. The permit specifies the area of the authorized mixing

zone that Ecology defines following procedures outlined in state regulations (chapter 173-201A WAC).

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

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

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

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

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

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

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

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

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

ALSO GIVEN AS:

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

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

Responsible corporate officer -- A president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy- or decision-making functions for the corporation, or the manager of one or more manufacturing, production, or operating facilities employing more than 250 persons or have gross annual sales or expenditures exceeding \$25 million (in second quarter 1980 dollars), if authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures (40 CFR 122.22).

Sample Maximum -- No sample may exceed this value.

Significant industrial user (SIU) --

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

Upon finding that the industrial user meeting the criteria in paragraph 2, above, has no reasonable potential for adversely affecting the POTW's operation or for violating any pretreatment standard or requirement, the Control Authority* may at any time, on its own initiative or in response to a petition received from an

industrial user or POTW, and in accordance with 40 CFR 403.8(f)(6), determine that such industrial user is not a significant industrial user.

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

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

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

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

Soluble 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 BOD₅ 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 stormwater drainage system into a defined surface water body, or a constructed infiltration facility.

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

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

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

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

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

Upset -- An exceptional incident in which there is unintentional and temporary noncompliance with technology-based permit effluent limits because of factors beyond the reasonable control of the Permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, lack of preventative maintenance, or careless or improper operation.

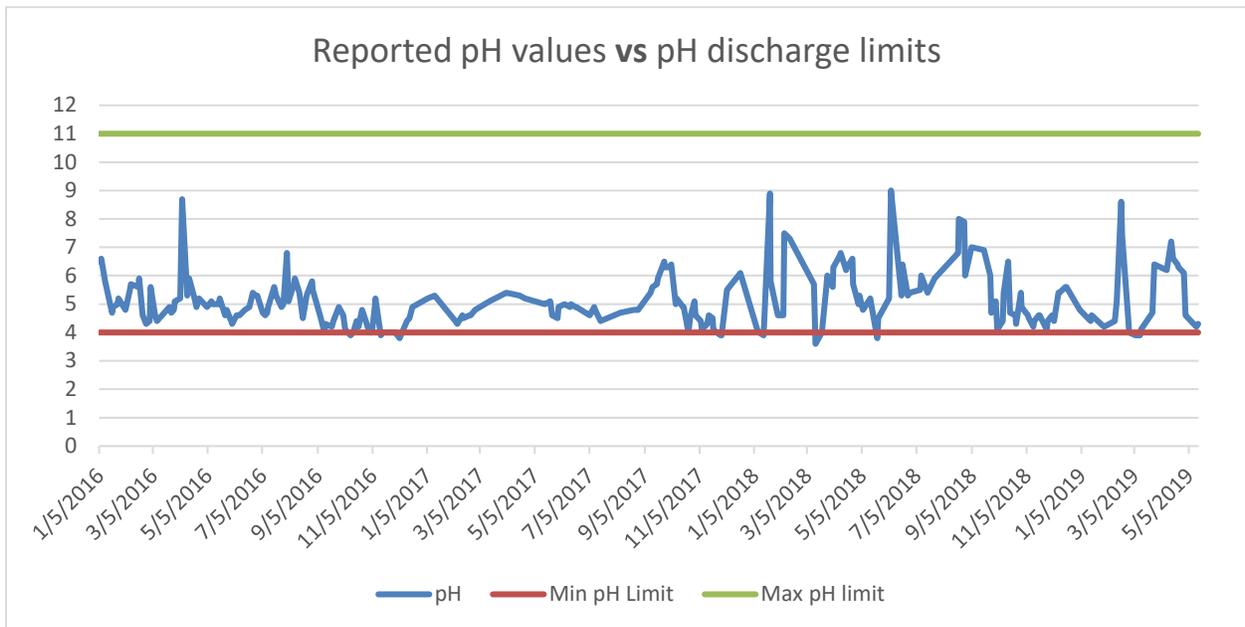
Water quality-based effluent limit -- A limit imposed on the concentration of an effluent parameter to prevent the concentration of that parameter from exceeding its water quality criterion after discharge into receiving waters.

Appendix D—Technical Calculations

Total flow volume reported in gallons per quarter by Desert Wind from January 1, 2016 through June 30, 2019

Row Labels	Sum of gal/day
2016	
+ Qtr1	24000
+ Qtr2	33900
+ Qtr3	73600
+ Qtr4	54000
2017	
+ Qtr1	22800
+ Qtr2	17600
+ Qtr3	6800
+ Qtr4	61880
2018	
+ Qtr1	9800
+ Qtr2	21000
+ Qtr3	29900
+ Qtr4	125300
2019	
+ Qtr1	47200
+ Qtr2	9900
Grand Total	537680

Graph depicting reported discharge pH values against the pH limits (4 -11) allowed through Desert Winds Industrial User Contract with the City of Prosser.



Appendix E—Response to Comments

No comments were received by the Department of Ecology.