## Ground & Surface Water Pollution at the Port of Sunnyside

June 12, 2024

This document is designed to highlight problems with ground and surface water pollution at the Port of Sunnyside in South Yakima County.

The Port of Sunnyside currently has an enforcement limit of 78.2 mg/L Nitrate N for groundwater at port monitoring wells - nearly eight times the safe drinking water standard. This level of nitrate in groundwater fits into the highest readings in South Yakima County, or almost anywhere. Why has this happened?

Sincerely,

Friends of Toppenish Creek

Table of Contents:

Topic	Page
Google Maps of the Port of Sunnyside	3
Problems with Groundwater at the Port of Sunnyside	4
A Closer Look at the Port of Sunnyside	5
Port of Sunnyside Industrial Waste Water Treatment Facility	6
National Pollutant Discharge Elimination System Permit for the POS	7
Analysis of Groundwater Flow at the Port of Sunnyside	8
New Enforcement Limits	10
Testing to Protect Surface Waters	12
Attachment A: Maps of Facilities at the Port of Sunnyside	13
Attachment B: Natural Resource Conservation Soil Maps	18
Attachment C: Documents from Ecology's Permit & Reporting Information System	23

The Port of Sunnyside is located south of the City of Sunnyside in South Yakima County



Port of Sunnyside - June 1, 2024



A Fact Sheet for the National Pollutant Discharge Elimination System (NPDES) permit for the Port of Sunnyside states<sup>1</sup>:

Perhaps one of the biggest challenges in managing the Port's land treatment system and evaluating its impacts to ground water is the historical land use patterns of the area. The land within and surrounding the Port's sprayfield has been used for intense agriculture for many years. Silage storage, feed lots, dairy farms, irrigated agriculture, and wetlands caused by a shallow water table are common. Shallow ground water within this area is characterized by irrigation recharge, discharging to local drains, Sulphur Creek Wasteway, and the Yakima River. Ground water is typically encountered within 10 feet of ground surface, and saline soils may occur where extensive evaporative enrichment of salts has occurred.

The primary wastewater constituents of concern to Ecology are nitrate, TDS and chloride. <u>A</u> <u>number of monitoring wells do not currently comply with permit limits and/or ground water</u> <u>quality standards for these contaminants.</u> However, all of the compliance monitoring wells met previous permit limits. The concentrations of contaminants in the ground water at various monitoring wells are not consistent. Studies indicate that the short term changes in the concentrations, in response to singular irrigation events through the irrigation season, are not consistent in any monitoring wells. Ground water quality monitoring began at the site in April 1991. <u>When viewed over the long term, the impacts to ground water quality beneath the</u> <u>sprayfield from the Port's discharges are apparent</u>. An attempt was made to summarize ground water quality beneath the sprayfield; however, constituent concentrations are often so extreme and counter-intuitive to applications of wastewater that the data cannot be effectively summarized.

The implemented AKART irrigation program approved by Ecology is expected to result in the movement of soil water through the root zone and to the ground water because of the application of excessive water (greater than evapotranspiration) to control soil salinity.

<u>The soil water which reaches and mixes with the ground water will contain regulated</u> <u>constituents such as nitrate, dissolved solids and chloride.</u> The effect of soil water constituents on ground water quality beneath the sprayfield cannot be predicted quantitatively with confidence. It is possible that, over the short term, TDS and chloride concentrations in the ground water beneath the sprayfield may increase. The effect on nitrate concentrations cannot be predicted. (AKART Analysis Summary, pp. 2-4) The objective of the AKART irrigation program and the Land Application Management and Monitoring Plan is to improve ground water quality over the long term.

<sup>&</sup>lt;sup>1</sup> Fact Sheet for NPDES Permit <u>file:///C:/Users/Jean%20Mendoza/Downloads/WA0052426-2014-2019FactSheet%20(3).pdf</u>

# A Closer Look at the Port of Sunnyside

Darigold, Milky Way

Sunnyside Industrial Waste Water Treatment Plant



Nutrien Ag Solutions, Windmill MushroomsProposed Pacific AG Renewable Natural GasJoint Drain 33.4Sulphur Creek Wasteway

Detailed maps of these sites are available in Attachment A

The Port of Sunnyside Industrial Waste Water Treatment Facility

Since the early 1970's The Port of Sunnyside Industrial Waste Water Treatment Facility has treated industrial wastewater from nearby businesses. The IWWTF accepts waste streams from these industries, treats the waste and discharges effluent either to JD 33.4 that empties into the Sulphur Creek Wasteway or discharges it as irrigation water to cropland at the port.<sup>2, 3, 4,5</sup>

In 2014 significant industrial users of the Port of Sunnyside Industrial Waste Water Treatment Facility (IWWTF) were Seneca Foods, Centennial Tank Cleaning, Darigold, DRR Fruit Products, JM Eagle, Johnson Foods, LTI, Valley Processing and Yakima Chief.<sup>6</sup>

Darigold was and is the largest user of the Port of Sunnyside IWWTF services.<sup>7</sup>

### PORT OF SUNNYSIDE YAKIMA COUNTY, WASHINGTON

MAJOR REVENUE SOURCE – IWWTF INDUSTRY CHARGES – LAST 10 YEARS December 31, 2022

											2022 Percent
											Relative to
IWWTF INDUSTRY LIST	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	Total Revenue
Centennial Tank	\$ 18,374	\$ 15,558	\$ 18,556	\$ 16,567	\$ 17,597	\$ 20,403	\$ 40,042	\$ 26,578	\$ 32,519	\$ 40,533	0.59%
Curfman Steel Corp.	\$ 1,534	\$ 1,325	\$ 1,025	\$ -	\$ -	\$ -	\$ -	ş -	۰.	s I	0.00%
Darigold	\$2,493,715	\$2,798,424	\$4,036,954	\$4,985,617	\$4,726,290	\$4,703,449	\$5,116,576	\$5,742,354	\$5,780,728	\$6,144,773	88.77%
Darigold-COW Water	\$ -	\$ -	\$ •	\$ 9,742	\$ 63,880	\$ 103,179	\$ 74,251	\$ 107,855	\$ 92,940	\$ 109,156	1.58%
DRR Fruit	\$ 63,996	\$ 81,460	\$ 71,569	\$ 72,450	\$ 96,208	\$ 90,403	\$ 84,913	\$ 86,496	\$ 103,795	\$ 110,415	1.60%
J. M. Eagle	\$ 3,255	\$ 1,808	\$ 1,433	\$ 1,425	\$ 1,500	\$ 1,475	\$ 1,500	\$ 1,475	\$ 1,425	\$ 1,475	0.02%
Johnson Cannery	\$ 115,619	\$ 118,728	\$ 116,846	\$ 141,681	\$ 111,211	\$ 112,216	\$ 135,056	\$ 93,388	\$ 113,921	\$ 137,513	1.99%
Johnson Fruit	\$ 173,539	\$ 213,148	\$ 253,623	\$ 190,503	\$ 180,951	\$ 176,784	\$ 138,231	\$ 138,352	\$ 183,345	\$ 113,167	1.63%
Milky Way/LTI	\$ 33,988	\$ 44,512	\$ 44,091	\$ 29,879	\$ 31,741	\$ 28,856	\$ 26,889	\$ 28,806	\$ 38,074	\$ 39,783	0.57%
Seneca/Andrus & Roberts	\$ 3,036	\$ 1,200	\$ 1,200	\$ 1,200	\$ 1,200	\$ 1,200	\$ 1,200	ş -	ş -	ş -	0.00%
Seneca/Independent	\$ 588,737	\$ 508,780	\$ 447,697	\$ 351,612	\$ 340,120	\$ 335,119	\$ 180,454	\$ 114,221	\$ -	s -	0.00%
Valley Processing	\$ 389,757	\$ 444,167	\$ 539,628	\$ 391,352	\$ 383,969	\$ 364,074	\$ 291,949	\$ 167,632	\$ 45,688	\$ 45,688	0.66%
Valley U. S. Grape	\$ 2,539	\$ 1,514	\$ 2,406	\$ 1,356	\$ 1,504	\$ 4,487	\$ 1,308	\$ 1,350	\$ -	\$ -	0.00%
Vitis Cellars	s -	\$ 3,500	s -	\$ -	s -	\$ -	\$ -	s -	<b>6</b>	<b>s</b>	0.00%
Yakima Chief Hopunion	\$ 13,318	\$ 4,496	\$ 4,225	\$ 3,945	\$ 5,393	\$ 3,639	\$ 9,121	\$ 5,405	\$ 11,380	\$ 9,337	0.13%
Mine Fruit								\$ 38,155	\$ 175,138	\$ 170,158	2.46%
TOTAL	\$3,901,406	\$4,238,618	\$5,539,252	\$6,197,330	\$5,961,564	\$5,945,284	\$6,101,490	\$6,552,066	\$6,578,953	\$6,921,999	100.00%

Source: Ports internal records.

Note: Indicators are not available for the Port's general government function.

Note: Darigold accounts for more than 50% of the Port's annual revenue for User/Industry fees.

<sup>3</sup> Land Application Management and Monitoring Plan file:///C:/Users/Jean%20Mendoza/Downloads/Port%20of%20Sunnyside%20LAMMP%202015%20(3).pdf

<sup>4</sup> Revision of Land Application Management and Monitoring file:///C:/Users/Jean%20Mendoza/Downloads/WA0052426-2017-01-17LAMMP-SoilSamplingReconfig%20(1).pdf

<sup>5</sup> 2014 NPDES Permit file:///C:/Users/Jean%20Mendoza/Downloads/WA0052426-2014-2019Permit%20(5).pdf

<sup>6</sup> Port of Sunnyside Industrial Wastewater Treatment Facility Draft Engineering Report Anaerobic Pretreatment System for SBR Influent <u>file:///C:/Users/Jean%20Mendoza/Downloads/2014-</u> <u>03 IWWTF%20Anaerobic%20Pretreat System SBR%20Influent draft%20ER%20(7).pdf</u>

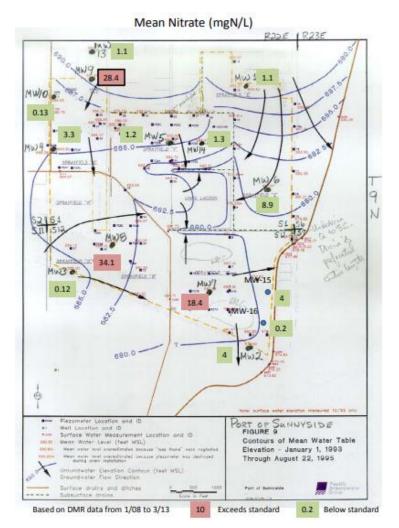
<sup>7</sup> Annual Comprehensive Financial Report, Port of Sunnyside 2022, page 92/95. Available at <u>https://portofsunnyside.com/img/pdf/941.pdf</u>

<sup>&</sup>lt;sup>2</sup> Port of Sunnyside Industrial Wastewater Treatment Facility Draft Engineering Report Anaerobic Pretreatment System for SBR Influent <u>file:///C:/Users/Jean%20Mendoza/Downloads/2014-</u> 03\_IWWTF%20Anaerobic%20Pretreat\_System\_SBR%20Influent\_draft%20ER%20(7).pdf

## National Pollutant Discharge Elimination System Permit for POS

In 2014 the WA State Dept. of Ecology wrote a National Pollution Discharge Elimination System (NPDES)<sup>8</sup> permit for the Port of Sunnyside.<sup>9,10</sup> The permit authorizes and addresses discharges of treated wastewater to surface water and ground water. In 2019 Ecology decided not to re-write the permit but instead left the 2014 permit in effect.<sup>11</sup>

Please study the map below from the Fact Sheet<sup>9</sup> that accompanied the 2014 permit.



<sup>&</sup>lt;sup>8</sup> NPDES permits are issued under the Clean Water Act to any facility that discharges pollutants to waters of the state

<sup>&</sup>lt;sup>9</sup> Fact Sheet for NPDES Permit <u>file:///C:/Users/Jean%20Mendoza/Downloads/WA0052426-2014-2019FactSheet%20(3).pdf</u>

<sup>&</sup>lt;sup>10</sup> 2014 NPDES Permit file:///C:/Users/Jean%20Mendoza/Downloads/WA0052426-2014-2019Permit%20(5).pdf

<sup>&</sup>lt;sup>11</sup> NPDES permit Extension <u>file:///C:/Users/Jean%20Mendoza/Downloads/WA0052426-2019-08-02-</u> <u>PermitAdminExt-ch%20(8).pdf</u>

## Analysis of Groundwater Flow at the Port of Sunnyside

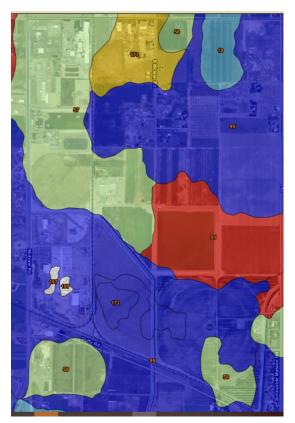
Typically when hydrologists describe groundwater pollution, they first describe groundwater flow paths to show how pollution moves from one area to another. In general, groundwater flows from higher elevations downward towards rivers and streams.

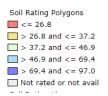
But sometimes there are obstructions underground, such as basalt outcroppings, or areas with impermeable soil. In those cases groundwater follows the paths of least resistance and flows around the underground barriers.

This may be happening at the Port of Sunnyside, as evidenced by the arrows in the map.

In simpler settings hydrologists measure pollution in monitoring wells upgradient and downgradient from the land they wish to study. They then compare the two sets of readings. If downgradient pollution levels are higher than upgradient pollution levels, the hydrogeologists conclude that activity on the land is discharging pollutants to groundwater.

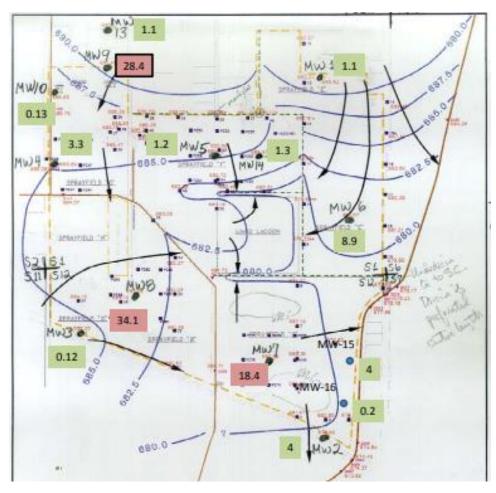
But the groundwater flow beneath the Port of Sunnyside goes in many directions. This is likely due to the wide variations in soils beneath the port. For example see this soil mapping for percent sand at the port, courtesy of the NRCS Web Soil Survey.





More maps from the NRCS Web Soil Survey are available in Attachment B or at the Soil Service website - <u>https://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx</u>

Looking at the map on page 6 again, ask yourself how you would choose upgradient and downgradient monitoring wells if you were trying to analyze groundwater pollution from the Port of Sunnyside.



**Upgradient**: Most likely upgradient monitoring wells would be MW-1 (N = 1.1), MW-9 (N = 28.4), MW-10 (N = 0.13), and MW-13 (N = 1.1).

Ecology chose MW-9 with a Nitrate-N level of 28.4 mg/L.<sup>12</sup> As a result the only evidence to demonstrate groundwater pollution from the Port of Sunnyside would be downgradient monitoring wells with Nitrate-N levels > 28.4.

**Downgradient**: Most likely downgradient monitoring wells would be MW-2 (N = 4), MW-3 (N = 0.12), MW-7 (N = 18.4), MW-15 (N = 4), MW-16 (N = 0.2) & MW-8 (N = 34.1).

Ecology chose MW-2, MW-15, and MW-16. Thus it appears that downgradient nitrate levels are much lower than upgradient levels.

<sup>&</sup>lt;sup>12</sup> See Fact Sheet for NPDES Permit, page 24/69 for Ecology's rationale. file:///C:/Users/Jean%20Mendoza/Downloads/WA0052426-2014-2019FactSheet%20(3).pdf

As a result of this (flawed) analysis of monitoring well readings at the Port of Sunnyside, Ecology loosened enforcement limits for the port. See the table below from the 2014 Fact Sheet for the Port of Sunnyside NPDES permit.

#### Fact Sheet for NPDES Permit No. WA0052426 PORT OF SUNNYSIDE INDUSTRIAL WASTEWATER TREATMENT FACILITY (IWWTF) Page 25 of 69

	Previous	New	Compliance	Minimum	Maximum	Mean
Parameter	Permit	Enforcement	Wells	value	value	
rarameter			W CIIS			(mg/L)
	Limits	limits		(mg/L)	(mg/L)	
Nitrate	9.1	78.2 mg N/L	MW-2	1.3	9	4
			MW-15	2.1	6.6	4
			MW-16	0.1	1	0.2
TDS	1003	2410 mg/L	MW-2	394	802	546
			MW-15	736	938	839
			MW-16	354	560	435
FDS	N/A	1880 mg/L	MW-2	272	632	406
			MW-15	512	806	676
			MW-16	194	426	344
Chloride	250	486 mg/L	MW-2	5	71	24
			MW-15	53	159	95
			MW-16	21	48	28

Table 1.	Groundwater	Limits and	Data	Summary
	Crown and the state			Sector 1

TDS means Total Dissolved Solids, the term applied to the material residue left in a vessel after evaporation of a sample and its subsequent drying in an oven at a defined temperature (either 103°C or 180°C)

FDS means Fixed Dissolved Solids, the term applied to the residue of total, suspended, or dissolved solids remaining after combustion at 500°C  $^{\rm 13}$ 

In 2019 Ecology extended the 2014 NPDES permit for the Port of Sunnyside for another five years. The Port of Sunnyside continues to spray large amounts of nitrate and other pollutants on its fields and groundwater nitrate levels increase. MW-2 had a Nitrate -N value of 4 in 2014 and values of 10 to 49 in 2021/2023. MW 09 had a value of 28.4 in 2014 and values of 73 to 97 in 2021/2023.

The most recent monitoring of wells at the Port of Sunnyside documents high levels of nitrate contamination. See readings below from three POS wells that are part of a WA State Dept. of Ecology's (Ecology's) two year baseline study in the Lower Yakima Valley.<sup>14</sup>

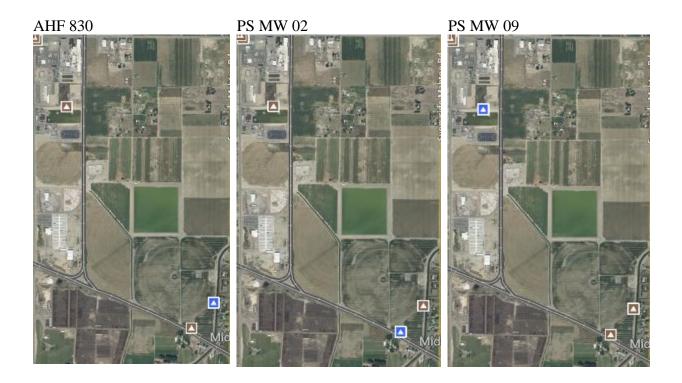
<sup>&</sup>lt;sup>13</sup> Mountain Empire Community College. Solids.

https://water.mecc.edu/courses/Env211/lesson20.htm#:~:text=Dissolved%20solids%20is%20the%20portion,combus\_tion%20at%20500%C2%B0C.

<sup>&</sup>lt;sup>14</sup> WA State Dept. of Ecology Environmental Information Management Data Groundwater Search, Study ID MRED0005, at

https://apps.ecology.wa.gov/eim/search/Groundwater/GWSearch.aspx?SearchType=Groundwater&State=newsearch &Section=all

Port of Sunn	yside Moni	toring Well	s - Nitrate Le					
	Summer	Fall	Winter	Spring	Summer	Fall	Winter	Spring
	2021	2021	2021	2022	2022	2022	2022	2023
AHF 830	0	2	0.8	0	1.9	6.1	4.8	2.5
PS MW 02	20	35	22	18	27	49	10	14
PS MW 09	97	89	77	84	76	92	73	88



PS MW 09 is near Joint Drain 33.4, near the Sunnyside Industrial Waste Water Treatment Facility, and just south from Darigold. It is difficult to see this well as upgradient. It is difficult to see a connection between PS MW 09 and PS MW 02 or AHF 830.

### Protection of Surface Waters

It is illegal to discharge pollutants to surface waters in amounts that will likely kill fish and other aquatic life. A widely accepted method of testing discharges for toxicity is a Whole Effluent Toxicity or WET testing.<sup>1</sup> Test organisms such as minnows, algae, or certain aquatic insects are placed in a prescribed volume of effluent for a given time. Survival and/or reproductive rates are measured.

WET testing can be for acute toxicity, meaning the test lasts for 24 to 96 hours. WET testing can be for chronic toxicity, meaning the test lasts for around seven days of exposure.

Beginning in May of 2015 the Port of Sunnyside WET testing for chronic toxicity began showing toxicity in effluent discharged to Joint Drain 33.4 (JD 33.4). This drain empties into the Sulphur Creek Wasteway that flows through the southeast corner of the Port of Sunnyside and empties into the Yakima River, a 303d impaired waterway.

In May of 2016 the port received permission from Ecology to proceed to toxicity identification and reduction.<sup>15</sup>

On February 1, 2018, the Port of Sunnyside submitted a reduction plan for total ammonia, biological oxygen demand, total suspended solids and fecal coliform.<sup>16</sup>

On August 5, 2019, Ecology sent a letter to Darigold regarding spikes in discharge to the Sunnyside Industrial Waste Water Treatment Facility that led to upsets in the anaerobic treatment and exceedances of NPDES permit limits.<sup>17</sup>

On August 15, 2019, Ecology recommended compliance action against the Port of Sunnyside for failure to meet final effluent limits for fecal coliform in discharge to JD 33.4.<sup>18</sup> And on August 16, 2019, the parties reached an agreed order.<sup>19</sup>

On March 2, 2021, Ecology approved construction of a new Membrane Bio Reactor (MBR) and other improvements to address overloading and exceedances in the IWWTF operation.<sup>20</sup>

<sup>&</sup>lt;sup>15</sup> Request to Proceed to Toxicity Identification and Reduction file:///C:/Users/Jean%20Mendoza/Downloads/Request%20to%20proceed%20to%20TI%20RE%20(2).PDF

<sup>&</sup>lt;sup>16</sup> Reduction Plan file:///C:/Users/Jean%20Mendoza/Downloads/Reduction\_TM\_20180201\_FINAL%20(3).pdf

<sup>&</sup>lt;sup>17</sup> Letter to Darigold regarding Spike loading <u>file:///C:/Users/Jean%20Mendoza/Downloads/2019-08-05\_Port%20to%20Darigold\_max%20day%20limit%20(3).pdf</u>

<sup>&</sup>lt;sup>18</sup> Recommendation for Enforcement Action Violation of Terms of a Waste Discharge Permit file:///C:/Users/Jean%20Mendoza/Downloads/WA0052426-2019-08-16-RFE%20docket%2016625%20ds%20(3).pdf

<sup>&</sup>lt;sup>19</sup> Agreed Order Ecology & POS <u>file:///C:/Users/Jean%20Mendoza/Downloads/WA0052426-2019-08-16%20Agreed%20Order%2016625%20(3).pdf</u>

<sup>&</sup>lt;sup>20</sup> Approved New MBR System and Associated Improvements Project file:///C:/Users/Jean%20Mendoza/Downloads/2021-03-02-PortofSunnyside-ApprovalLetter-cm%20(5).pdf

Attachment A



Sunnyside Industrial Waste Water Treatment Plant

Nutrien Ag Solutions, Windmill Mushrooms Proposed Pacific AG Renewable Natural Gas

Darigold, Milky Way





Sunnyside Industrial Waste Water Treatment Plant



Nutrien AG Solutions, Windmill Mushrooms

Ostrom Mushrooms (now Windmill Mushrooms) opened in 2020.

Nutrien Solutions opened in 2019.

Darigold opened in 1991



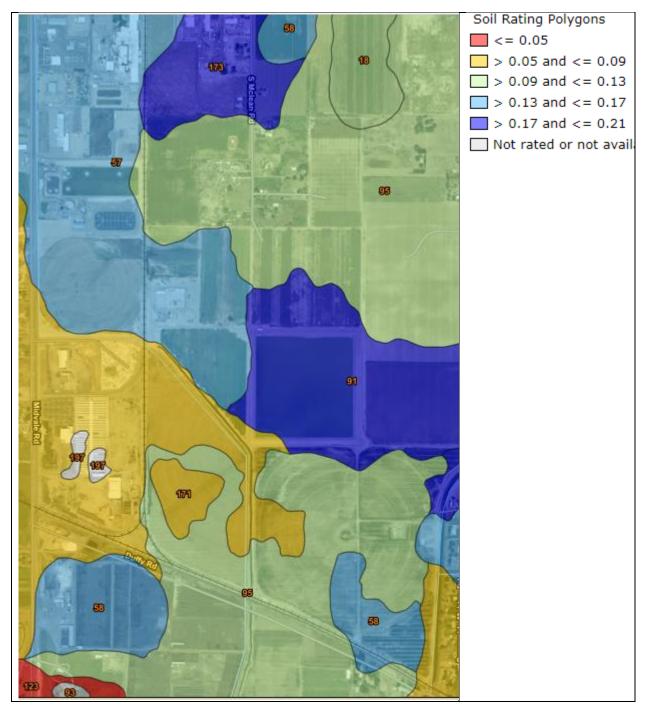
Proposed Site of Pacific AG Renewable Natural Gas Plant

## Attachment B

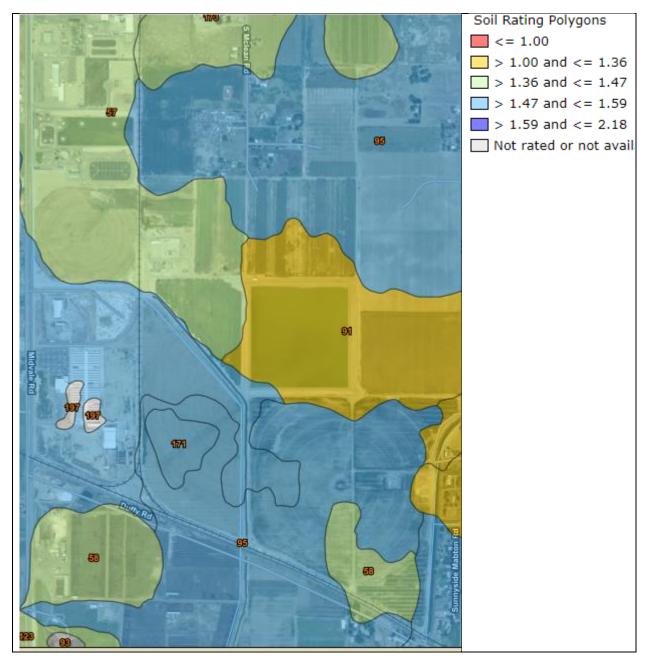
# NRCS Soil Data Explorer – Soil at the Port of Sunnyside

https://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx

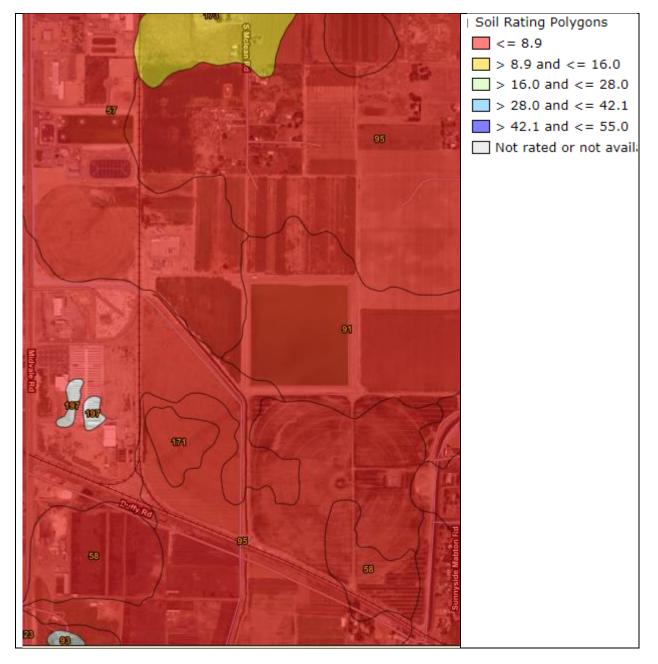
#### Available Water Capacity



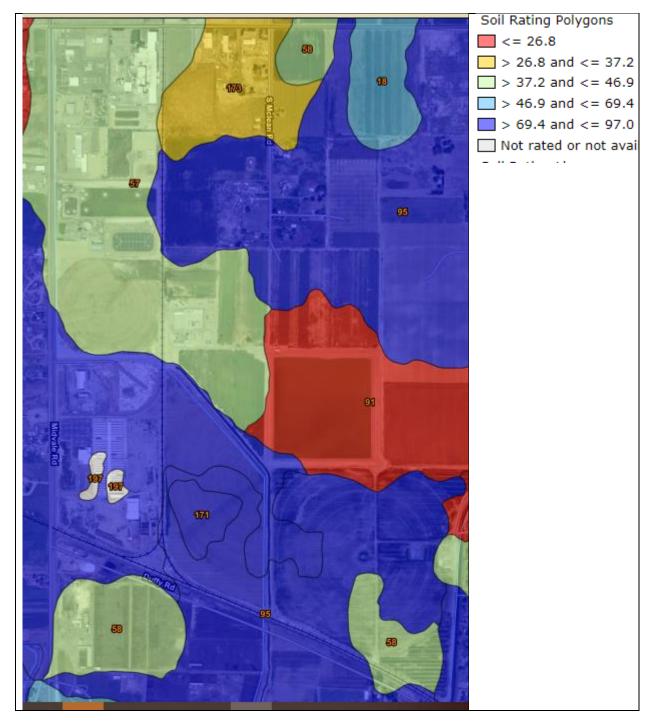
# Bulk Density



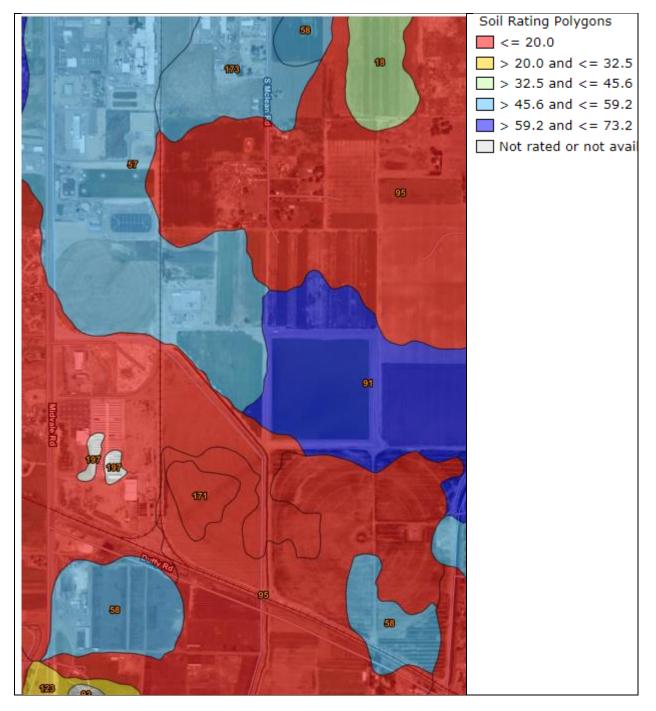
## Percent Clay



#### Percent Sand



### Percent Silt



# Attachment C Documents from Ecology's Permit & Reporting Information System

https://apps.ecology.wa.gov/paris/PermitLookup.aspx

August 27, 2009: Permit Application for POS

file:///C:/Users/Jean%20Mendoza/Downloads/WA0052426-2009-08-27-NPDES-Application%20(2).pdf

October 6, 2009: Application to Discharge Wastewater to Ground Water <u>file:///C:/Users/Jean%20Mendoza/Downloads/WA0052426-2009-10-06-</u> <u>StateToGroundApplication%20(3).pdf</u>

2010 to 2012: Soil Chemistry file:///C:/Users/Jean%20Mendoza/Downloads/SoilChemistry%20(3).pdf

October 17, 2013: Approve request for time extension to review draft permit and fact sheet <u>file:///C:/Users/Jean%20Mendoza/Downloads/10.17.2013%20Port%20of%20Sunnyside%20CHu%20(2).</u> <u>pdf</u>

November, 2013: Addendum to 2010 Engineering Report file:///C:/Users/Jean%20Mendoza/Downloads/Port%20of%20Sunnyside%202010%20Engineering%20Re port%20Addendum%20.pdf

November 15, 2013: Approved Extension of time to review permit and fact sheet <u>file:///C:/Users/Jean%20Mendoza/Downloads/11.15.2013%20Port%20of%20Sunnyside%20CHu%20(4).</u> <u>pdf</u>

March, 2014: Anaerobic Pretreatment System for SBR Effluent <u>file:///C:/Users/Jean%20Mendoza/Downloads/2014-</u> 03\_IWWTF%20Anaerobic%20Pretreat\_System\_SBR%20Influent\_draft%20ER%20(7).pdf

March 28, 2014: Conditional Approval of Anaerobic Pretreatment Engineering Report file:///C:/Users/Jean%20Mendoza/Downloads/3.28.2014%20Port%20of%20Sunnyside%20WA0052426 %20IL%20(3).pdf

April 23, 2014: Plan to Review Construction Plans for Anaerobic Lagoon file:///C:/Users/Jean%20Mendoza/Downloads/Port%20of%20Sunnyside%20APF%20-%20Dam%20Safety%20Construction%20Permit%2020140430%20(2).pdf

April 29, 2014: POS anaerobic Pretreatment Facility

file:///C:/Users/Jean%20Mendoza/Downloads/Port%20of%20Sunnyside%20Anaerobic%20Pretreatment%20Facility%20CQAP%2020140429%20(1).pdf

June 11, 2014: Fact Sheet for NPDES Permit file:///C:/Users/Jean%20Mendoza/Downloads/WA0052426-2014-2019FactSheet%20(3).pdf

June 16, 2014: Announcement of Availability of Draft Permit file:///C:/Users/Jean%20Mendoza/Downloads/WA0052426-2014PublicNoticeDraftPermit%20(4).pdf

August 29, 2014: Issuance of NPDES permit <u>file:///C:/Users/Jean%20Mendoza/Downloads/WA0052426-</u>2014-08-29PermitIssuanceLetter-ch%20(1).pdf

August 29, 2014: NPDES Permit file:///C:/Users/Jean%20Mendoza/Downloads/WA0052426-2014-2019Permit%20(5).pdf

February, 2015: Land Application Management and Monitoring Plan <u>file:///C:/Users/Jean%20Mendoza/Downloads/Port%20of%20Sunnyside%20LAMMP%202015%20(3).p</u> df

April 24, 2015: Cerio Acute Toxicity Testing – No toxicity file:///C:/Users/Jean%20Mendoza/Downloads/Q1%202015%20845-3%20cerio%20acute%20(2).pdf

April 24, 2015: Fathead Minnow Acute Toxicity Testing – No toxicity file:///C:/Users/Jean%20Mendoza/Downloads/Q1%202015%20845-2%20FH%20acute%20(6).pdf

May 15, 2015: Cerio Acute Toxicity Test – No toxicity file:///C:/Users/Jean%20Mendoza/Downloads/845-7%20Cerio%20acute%20(2).pdf

May 15, 2015: Fathead Minnow Acute Toxicity Test – No toxicity file:///C:/Users/Jean%20Mendoza/Downloads/845-6%20FH%20acute%20(2).pdf

May 19, 2015: Cerio Chronic Toxicity Test – Toxicity indicated file:///C:/Users/Jean%20Mendoza/Downloads/845-5%20cerio%20chronic%20(1).pdf

May 19, 2015: Fathead Minnow Chronic Toxicity Test – No toxicity file:///C:/Users/Jean%20Mendoza/Downloads/845-4%20FH%20chronic.pdf

May 20, 2015: Green Algae Chronic Toxicity Test – Chronic toxicity indicated file:///C:/Users/Jean%20Mendoza/Downloads/845-8%20algae%20(2).pdf

May 20, 2015: Algae Chronic Toxicity Testing – Chronic Toxicity Indicated file:///C:/Users/Jean%20Mendoza/Downloads/Q2%20845-8%20algae%20chronic%20(4).pdf

June 15, 2015: Fathead Minnow Chronic Toxicity Testing – No toxicity file:///C:/Users/Jean%20Mendoza/Downloads/Q2%20845-4%20FH%20chronic%20(3).pdf

June 15, 2015: Cerio Chronic Toxicity Testing – Toxicity indicated file:///C:/Users/Jean%20Mendoza/Downloads/Q2%20845-5%20cerio%20chronic%20(4).pdf

June 15, 2015: Fathead Minnow Acute Toxicity – No Toxicity file:///C:/Users/Jean%20Mendoza/Downloads/Q2%20845-6%20FH%20acute%20(2).pdf

June 15, 2015: Cerio Acute Testing – No Toxicity file:///C:/Users/Jean%20Mendoza/Downloads/Q2%20845-7%20Cerio%20acute%20(3).pdf

July 17, 2015: Aerated lagoon solids to ground <u>file:///C:/Users/Jean%20Mendoza/Downloads/WA0052426-2015-07-16SpillWrittenReport%20(2).pdf</u>

November 20, 2015: Operations Manual Update Letter file:///C:/Users/Jean%20Mendoza/Downloads/WA0052426-2015-11-25OMUpdate%20(1).pdf

January 12, 2016: Elevated Soil Nitrates <u>file:///C:/Users/Jean%20Mendoza/Downloads/Port%20Sunnyside%2012-11-</u> 15%20soil%20nitrate%20limit%20violation%20report%20(1).pdf January 14, 2016: Fathead Minnow Acute Testing – No Toxicity file:///C:/Users/Jean%20Mendoza/Downloads/845-14%20FH%20acute%20(3).pdf

January 14, 2016: Cerio Acute Testing – No Toxicity <u>file:///C:/Users/Jean%20Mendoza/Downloads/845-15%20Cerio%20acute%20(3).pdf</u>

February 12, 2016: Fathead Minnow Acute Testing – No Toxicity file:///C:/Users/Jean%20Mendoza/Downloads/RMAR3793PSun%20(3).pdf

February 12, 2016: Cerio Acute Testing – No Toxicity file:///C:/Users/Jean%20Mendoza/Downloads/RMAR3794PSun%20(3).pdf

May 16, 2016: Permit Violation Elevated Soil Nitrates file:///C:/Users/Jean%20Mendoza/Downloads/WA0052426-2016-05-16E1Ssoilnitrate%20(4).PDF

May 18, 2016: Request to Proceed to Toxicity Identification and Reduction file:///C:/Users/Jean%20Mendoza/Downloads/Request%20to%20proceed%20to%20TI%20RE%20(2).PD <u>F</u>

May 19, 2016: Cerio Chronic Toxicity Testing – Toxicity Indicated file:///C:/Users/Jean%20Mendoza/Downloads/845-16%20+%20QC%20Cerio%20chronic%20(4).pdf

June 3, 2016: Cerio Survival and Reproduction Test – Fails file:///C:/Users/Jean%20Mendoza/Downloads/RMAR3900PoSunny%20(3).pdf

July 11, 2016: Toxicity Identification and Reduction Plan file:///C:/Users/Jean%20Mendoza/Downloads/WA0052426-2016-07-11TREplan-FINAL%20(1).pdf

July 22, 2016: Ecology Approved Toxicity Identification and Reduction Plan file:///C:/Users/Jean%20Mendoza/Downloads/WA0052426-2016-07-22ToxicityIdentificationReductionPlan-md%20(6).pdf

January 13, 2017: Revision of Land Application Management and Monitoring <u>file:///C:/Users/Jean%20Mendoza/Downloads/WA0052426-2017-01-17LAMMP-SoilSamplingReconfig%20(1).pdf</u>

March 1, 2017: Soil Sampling Field Reconfiguration Request <u>file:///C:/Users/Jean%20Mendoza/Downloads/WA0052426-2017-03-01-SoilSamplingReconfiguration-</u><u>md%20(1).pdf</u>

July 21, 2017: Decommissioning MW 3 <u>file:///C:/Users/Jean%20Mendoza/Downloads/WA0052426-</u>20170726DecommissionMW3.pdf

October 19, 2017: Approved Sequence Batch Reactor Operations and Maintenance Manual

January 31, 2018: Wasteload Assessment referenced to S4.e in the permit file:///C:/Users/Jean%20Mendoza/Downloads/Wasteload%20Assessment%202017%20(4).pdf

February 1, 2018: Reduction Plan Letter ReductionPlan Letter (2).pdf

February 1, 2018: Reduction Plan file:///C:/Users/Jean%20Mendoza/Downloads/Reduction\_TM\_20180201\_FINAL%20(3).pdf

April 26, 2018: Pipe Break <u>WA0052426-2018-04-26PipeBreak (3).pdf</u>

June 12, 2018: Notification of Need to Submit Permit Renewal Application

July 12, 2018: Whole Effluent Toxicity and Fecal Coliform Compliance Compilation file:///C:/Users/Jean%20Mendoza/Downloads/WA0052426-2018-07-12-EffluentComplianceEval\_Screen%20(2).pdf

August 26, 2018: Sprayfield Leak file:///C:/Users/Jean%20Mendoza/Downloads/SprayfieldDischargeLeak\_26Apr2018%20(4).pdf

November 14, 2018: Inspection Report

file:///C:/Users/Jean%20Mendoza/Downloads/Port%20of%20Sunnyside%20IWWTF%20Inspection%20 Report\_14Nov2018%20(4).pdf

December 4, 2018: Follow up letter Meeting re Proposed Plan and Schedule for complying with WET tests and fecal coliform requirements

file:///C:/Users/Jean%20Mendoza/Downloads/NPDES%20Follow%20Up%2012.4.18%20(7).pdf

March 26, 2019: Permit Renewal Application Received and Accepted file:///C:/Users/Jean%20Mendoza/Downloads/WA0052426-2019-03-26-PermitApp-ch%20(8).pdf

April 9, 2019: Addendum to Fact Sheet re fecal coliform file:///C:/Users/Jean%20Mendoza/Downloads/WA0052426-2019-04-09-ModFactSheetAddendum%20(7).pdf

April 2019: Announcement of Permit Modification file:///C:/Users/Jean%20Mendoza/Downloads/WA0052426-2019-04-09-PublicNoticeOfModification%20(3).pdf

July 1, 2019: NPDES Permit Modification <u>file:///C:/Users/Jean%20Mendoza/Downloads/WA0052426-</u> 2019-07-22-ModPermit.docm%20(4).pdf

July 22, 2019: Addendum to Fact Sheet – Removal of fecal coliform file:///C:/Users/Jean%20Mendoza/Downloads/WA0052426-2019-07-22-ModFactSheetAddendum%20(4).pdf

July 23, 2019: NPDES Permit Modification Letter – Removed fecal coliform file:///C:/Users/Jean%20Mendoza/Downloads/WA0052426-2019-07-24-PermitMod-ch%20(3).pdf

August 2, 2019: NPDES Permit Extension file:///C:/Users/Jean%20Mendoza/Downloads/WA0052426-2019-08-02-PermitAdminExt-ch%20(8).pdf

August 5, 2019: Letter to Darigold regarding Spike loading file:///C:/Users/Jean%20Mendoza/Downloads/2019-08-05\_Port%20to%20Darigold\_max%20day%20limit%20(3).pdf

August 15, 2019: Recommendation for Enforcement Action Violation of Terms of a Waste Discharge Permit file:///C:/Users/Jean%20Mendoza/Downloads/WA0052426-2019-08-16-RFE%20docket%2016625%20ds%20(3).pdf

August 16, 2019: Agreed Order Ecology & POS file:///C:/Users/Jean%20Mendoza/Downloads/WA0052426-2019-08-16%20Agreed%20Order%2016625%20(3).pdf September 30, 2019: First Consecutive Report on AOC #16625 file:///C:/Users/Jean%20Mendoza/Downloads/Progress%20AO16625%20Sept2019%20(3).pdf

October 1, 2019: Final Engineering Report: Pre infiltration and UV Disinfection Systems <u>file:///C:/Users/Jean%20Mendoza/Downloads/PoS%20IWWTF%20Final%20ER\_UV%20Filter\_Screen%</u> <u>20(2).pdf</u>

October 16, 2019: Approved Pre-Filtration and UV Systems Design file:///C:/Users/Jean%20Mendoza/Downloads/2019-10-15-PortOfSunnyside-ApprovalLetter-Tracking1910-1%20(1).pdf

October 31, 2019: Second Consecutive Report on AOC #16625 file:///C:/Users/Jean%20Mendoza/Downloads/Progress%20AO16625%20Oct%202019%20(2).pdf

December 31, 2019: Fourth Consecutive Report on AOC #16625 file:///C:/Users/Jean%20Mendoza/Downloads/Progress%20AO16625%20Dec2019%20(4).pdf

January 31, 2020: Fifth Consecutive Report on AOC #16625 file:///C:/Users/Jean%20Mendoza/Downloads/Progress%20AO16625%20Jan2020%20(6).pdf

February 28, 2020: Sixth Consecutive Report on AOC #16625 file:///C:/Users/Jean%20Mendoza/Downloads/Progress%20AO16625%20Feb2020%20(3).PDF

April 9, 2020: Preliminary Engineering Report New MBR System and Associated Improvements file:///C:/Users/Jean%20Mendoza/Downloads/WA0052426-2020-04-09-PER MBR EDR3 20200409screen%20(4).pdf

May 1, 2020: Eighth Consecutive Report on AOC #16625 file:///C:/Users/Jean%20Mendoza/Downloads/Progress%20AO16625%20Apr2020%20(3).pdf

September 8, 2020: Fact Sheet for NPDES Permit WA0052078, Darigold Inc. file:///C:/Users/Jean%20Mendoza/Downloads/WA0052078-2020-09-08-DraftFactSheet%20(3).pdf

January 28, 2021: New MBR and Associated Improvements Project Bidding Requirements file:///C:/Users/Jean%20Mendoza/Downloads/Vol1\_MBR\_ImprovesBiddingReqCONFORMED-PRINT%20(1).pdf

January 28, 2021: New MBR and Associated Improvements Project Conformed Documents file:///C:/Users/Jean%20Mendoza/Downloads/Vol2\_MBR%20ImprovesDivs0-43-CONFORMED-PRINT%20(1).pdf

January 28, 2021: New MBR and Associated Improvements Project Drawings file:///C:/Users/Jean%20Mendoza/Downloads/Vol3\_MBRImprovesDwgsCONFORMED-PRINT%20(8).pdf

March 2, 2021: Approved New MBR System and Associated Improvements Project <u>file:///C:/Users/Jean%20Mendoza/Downloads/2021-03-02-PortofSunnyside-ApprovalLetter-cm%20(5).pdf</u>

April 28, 2021: National Pollutant Discharge Elimination System Waste Discharge Permit No. WA0052078, Darigold Inc. <u>file:///C:/Users/Jean%20Mendoza/Downloads/WA0052078-2021-2026-FinalPermit.pdf</u>

### May 23, 2022: Letter to Darigold re Spike Discharges and Membrane Bioreactor file:///C:/Users/Jean%20Mendoza/Downloads/WA0052078\_05-23-2022 Letter%20from%20Port%20of%20Sunnyside%20RE%20Darigold%20(4).pdf

#### August 8, 2022: Inspection Report

file:///C:/Users/Jean%20Mendoza/Downloads/Inspection%20Form\_PortofSunnyside\_8Jun2022%20(3).p df

October 19, 2022: Modifications to Darigold Schedule A and Sampling Requirements <u>file:///C:/Users/Jean%20Mendoza/Downloads/WAR000567\_2022-10-</u>19\_%20Mod%20to%20Darigolds%20Schedule\_Letter%20(3).pdf