



State of Oregon
Department of
Environmental
Quality

Water Pollution Control Facility Permit Renewal Fact Sheet Olam West Coast, Inc.

Permittee	Olam West Coast, Inc. (OFI) PO Box 583 Boardman, OR 97818
Existing Permit Information	File Number: 108229 Permit Number: 101233 Expiration Date: December 31, 2019
Facility Name & Location	Wastewater Lagoon and Land Application Treatment System One Cascade Way Boardman, OR, 97818 Long: 119.609007 W / Lat: 45.692557 N Morrow County
Permittee Contact	Tina Collier Quality Manager 541-237-6192 PO Box 583 Boardman, OR 97818
LLID:	LLID: 1195805456861
Receiving Stream/Basin:	Nearest stream: Umatilla River River Mile: 1.3 Sub Basin Name: Umatilla WRD Basin Name: Umatilla
Proposed Action:	Water Pollution Control Facility Permit Renewal Application Number: 951283 Date Application Received: October 29, 2019
Source Category:	Industrial
Sources Covered:	Industrial Wastewater Lagoons and Land Application
Permit Type:	WPCF-IW-B03
Permit Writer	Justin Sterger 541-633-2016 Date Prepared: January 12 th , 2023

WPCF Permit Renewal Fact Sheet

Olam West Coast, Inc.

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WPCF Permit Renewal Fact Sheet Olam West Coast, Inc.

1. Introduction

As required by Oregon Administrative Rule 340-045-0037, this fact sheet describes the basis and methodology used in developing the permit. The permit is divided into several sections:

- Schedule A – Waste discharge limitations
- Schedule B – Minimum monitoring and report requirements
- Schedule C – Compliance conditions and schedules
- Schedule D – Special conditions
- Schedule F – General conditions

Olam West Coast, Inc. operates an onion dehydration plant with a wastewater lagoon and land application system near Boardman, Oregon. The previous permit, issued July 27, 2010, expired December 31, 2019. On October 29, 2019, the Department received the permittee's completed renewal application. In accordance with Oregon Administrative Rule (OAR) 340-045-0040, WPCF Permit #101233 was administratively extended until such time as the Department takes final action on the renewal application.

The previous permit allowed lagoon storage and land application of food processing wastewater and waste solids and the proposed renewal is a continuation of this activity at the same facility and land application site. This permit evaluation report addresses waste disposal limitations, minimum monitoring and reporting requirements, compliance conditions and schedules and special conditions proposed for inclusion in the renewal permit.

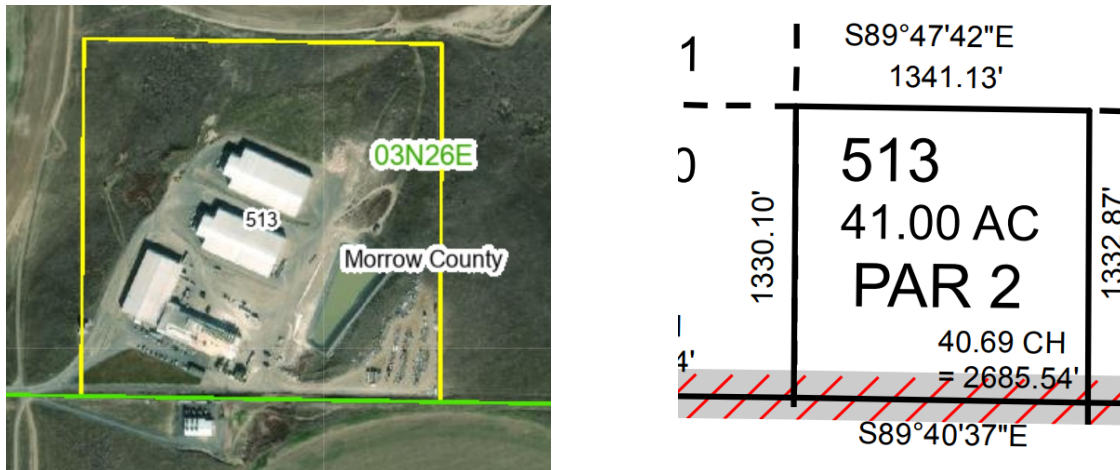
2. Facility Description

2.1 Wastewater Facility

Olam West Coast Inc. operates an onion and vegetable dehydration plant with a wastewater treatment facility near Boardman, Oregon approximately 10 miles south of I-84 on Bombing Range Road (East side of the Road). The physical address for this property is 1 Cascade Way, Boardman Oregon, 97818.

The Plant resides on: T3N, R26EWM, S31; Tax Lot 513 (41 acre parcel). The land application site is just north of the facility as shown in the image and tax lot map below:

Figure 2-1: Facility Overhead Map and Tax Lot Maps



The facility maintains a single HDPE lined industrial surge pond and land applies to a single 120-acre pivot irrigated circle. The facility irrigates process wastewater and supplemental water at the single land application site since there is not enough wastewater to provide the hydraulic needs of the crops grown.

The primary contributing sources to Olam’s process wastewater stream include the destoner, barrel washer, and slicer/cutter operations. At this time, boiler blowdown is not discharged to the process wastewater system. Should this discharge be requested in the future, DEQ approval is required through an updated OM&M Plan. All process water is collected in a common flume that passes through a screening system prior to being discharged to the 2-million-gallon lined pond located NE from the processing plant. Wastewater is then land applied to the adjacent field. Waste solids are collected and loaded onto trucks, one to two per day and transported to the Lindsay Ranch and temporarily stockpiled prior to being land applied. All product processing equipment is cleaned and sanitized approximately every 2 weeks. The onsite septic system is separate from the industrial processing waste stream.

The storage pond is periodically pumped down and cleaned of solids. These solids are either land applied to the process water land application site, transported and spread at the Lindsey Farm, or disposed of at a state certified landfill.

Stormwater, according to the facility annual reports, is collected and discharged to a subsurface drainfield. An updated OM&M is required to be submitted as a condition of the proposed renewal permit which must meet all conditions of the permit and describe in detail the land application activities and monitoring procedures to ensure protection of groundwater and to ensure proper management of wastewater at the site.

Figure 2-2: Facility Schematic from July 2010 Permit Fact Sheet

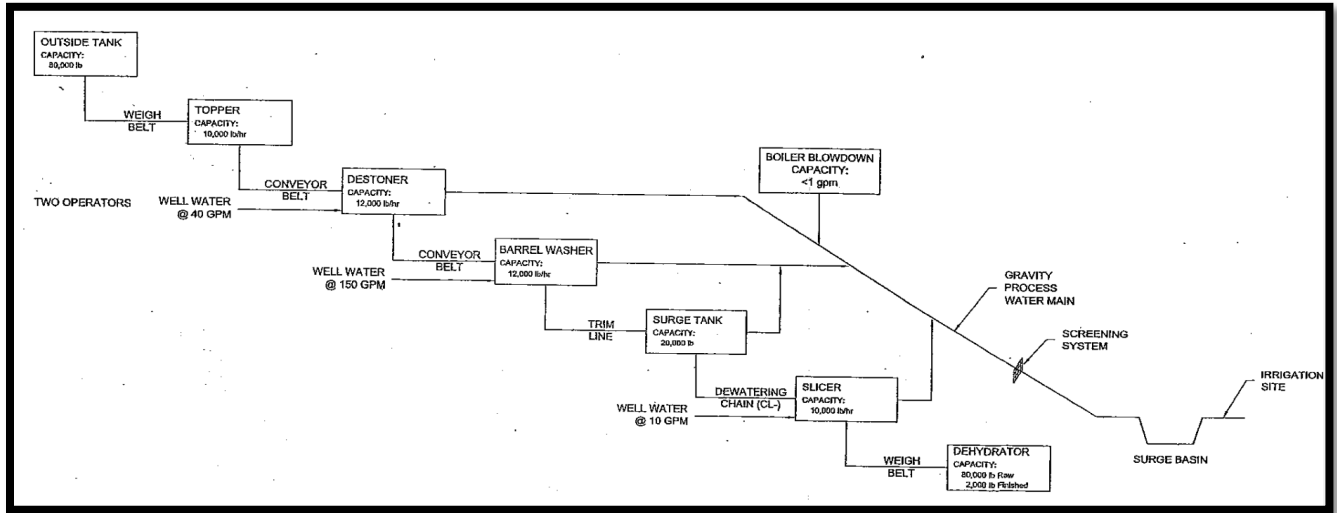
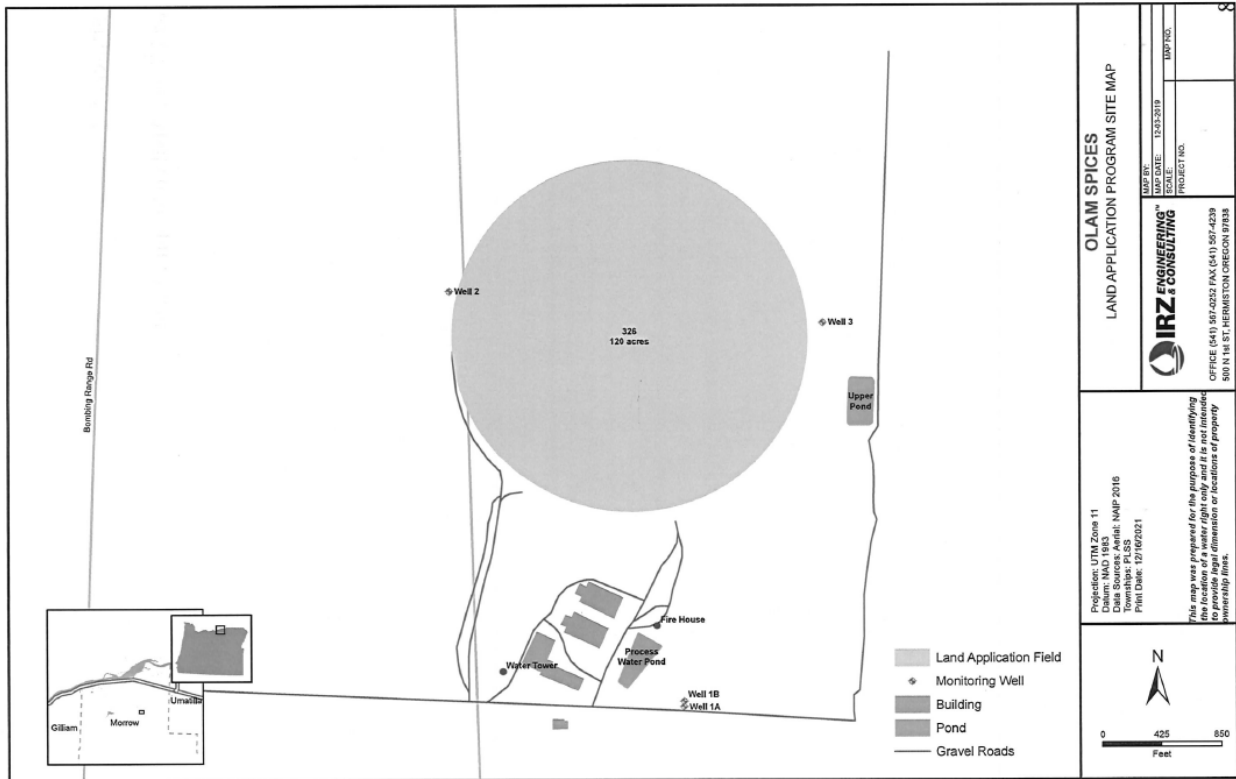


Figure 2-3: Land Application Program Site Map from 2021 Annual Report (Source: IRZ Consulting)



2.2 Compliance History

The last inspection of the facility was completed on December 14th, 2022 in conjunction with beginning the permit renewal. There was identified non-compliance with the permit cited in a pre-enforcement notice (PEN Number: 2023-PEN-7984) for management of the land application activities that was not conducted in accordance with the facility operations, monitoring, and management (OM&M) plan. Specifically since transfer of the permit in February 2021, the facility irrigated to crops that are not listed in the facility OM&M Plan, did not account for all sources of nitrogen applied to the crops, and did not report these non-compliance issues to DEQ as required by the permit. This enforcement action is pending at the time of this permit writing.

The facility is required to update and re-submit an updated OM&M plan as a condition of the proposed renewal permit.

2.3 Complaints

No complaints regarding this facility were recorded during the review period.

2.4 Groundwater

DEQ may evaluate the need for a full assessment a facility's impact on groundwater quality if there is any evidence of an adverse impact resulting from the facilities operation or the facility fails to operate in accordance with permit conditions. Schedule A of the proposed permit includes a condition prohibiting adverse impacts to groundwater.

The fundamental practice of beneficial use for wastewater and waste solid applications is using soil and vegetation, along with management practices, as treatment in such a way so as to protect from groundwater contamination while also not impacting the productivity of the site for future use. If a facility is impacting groundwater, impacting site productivity for future use, and/or if their operations reside within a groundwater management area, then the generator of such waste material needs to implement greater protections (i.e. treatment, reduced nutrient application, storage).

Olam West, Inc. land application site and processing facility are located within the Lower Umatilla Basin Groundwater Management Area (LUBGMA). The area has been designated as such by the Department because groundwater nitrate concentrations currently exceed 70% of the groundwater reference level (10 mg/l) in a widespread area. At concentrations greater than 10 mg/l, orally ingested nitrate can be hazardous to infants.

The proposed WPCF permit prohibits application of nitrogen and hydraulic loading in excess of the maximum agronomic rates needed by the receiving crops on an annual basis. The OM&M plan and permit require the facility to modify agronomic rates based on crop tissue analysis and evaluation of soil sampling results to help ensure nitrogen balance and protection of groundwater. The permittee is required to demonstrate adequate cropland capacity (water and nutrient balance) and treatment facility capacity and infrastructure prior to Department approval of new or increased sources of wastewater. At the time of this permit action, during the growing season there is more acreage available than necessary and supplemental water and nutrients are

utilized to provide sufficient hydraulic loading to the crops at the acreage – provided applications are carefully managed. The proposed permit also requires continued groundwater monitoring and installation of a new upgradient well and downgradient well for the land application site in accordance with a Workplan and approved Groundwater Monitoring Plan. See Appendix I to this fact sheet for a detailed review conducted by DEQ’s hydrogeologist.

2.5 Industrial Wastewater Reuse

The facility operates a land application program with industrial water reuse as described in the preceding sections of this document. Land application limitations and requirements are specified by the permit and Operations, Monitoring, and Management OM&M Plan.

Currently, winter irrigation of wastewater during the months of November through February is conducted to add moisture and nutrients to the soil for later uptake in the growing season. This practice has not been deemed a beneficial use or to be protective of groundwater in an already impacted groundwater management area. Crops at the land application site (including cover crops) do not have published ET rates during these winter months to demonstrate uptake ability of land applied nutrients and hydraulic loading. Land application of supplemental water during the winter does not occur as the practice is not a typical agricultural practice and/or due to water right availability. Due to the nutrient content of the wastewater (24.5 mg/L to 39.7 mg/L Total Nitrogen per 2021 Annual Report data), this loading combined with precipitation and potential for leaching to groundwater makes this practice a disposal activity with risk of adverse impact to groundwater. The permit requires phase-out of winter irrigation by a defined date provided in Schedule C, giving the facility adequate time to plan, design, and execute a solution to phase out the winter irrigation practice.

Per discussions with the facility, chlorine is added for disinfection purposes for the supply well used in washing activities at the facility. Otherwise, food grade chemicals and disinfectants are used in the process system are discharged to the wastewater lagoon for land application. The full list of disinfectants and food grade additives is listed below (from October 2022). The facility OM&M is required to retain an SDS for all chemicals used in the onion processing facility.

Chemical	Ingredient List / Active Ingredient	Company
Boiler Chemicals		Wesmar Co., Inc.
Purity FG WO White Mineral Oil 15	White Mineral Oil	Connell Oil (Petro-Canada Lubricants)
Purity FG2 Clear	White Mineral Oil	Connell Oil (Petro-Canada Lubricants)
Purity FG AW 32,46,68,100 Hydraulic Fluid with Microl	White mineral Oil / 2,6-di-tert-butyl-p-cresol	Connell Oil (Petro-Canada Lubricants)
Purity FG Chain Fluid Light/Heavy	White Mineral Oil	Connell Oil (Petro-Canada Lubricants)
Pristine FG Compressor Fluid		Connell Oil (Sullair)
Boiler Shield 365	Potassium hydroxide, Sodium metabisulfate, dl-methylaminoethanol	Kurita
Oxigon 103	Sodium metabisulfate	Kurita
Liquichlor 12.5% Solution	Sodium Hypochlorite	Univar Solutions
Drytec FG Briquettes	Calcium hypochlorite	JMC Enterprises, Inc.
Cold Storage Chemicals		JMC Enterprises, Inc.
Bioside HS 15%	Hydrogen Peroxide / Peroxyacetic Acid/ Acetic Acid	US Water Services
Degreaser HD	Sodium Hydroxide	US Water Services
IPA (Isopropyl alcohol)	Isopropyl Alcohol	US Water Services
SB-Peracetic Acid-F Sanitizer	Acetic Acid/ Peracetic Acid/ Hydrogen Peroxide/ Sulfuric Acid	US Water Services
Perasan-A	Hydrogen Peroxide / Peroxyacetic Acid/ Acetic Acid	US Water Services
Smokehouse HD	Sodium Hydroxide	US Water Services
Sterilex Ultra Activator Solution	Potassium Carbonate/ Sodium Carbonate	US Water Services
Sterilex Ultra Disinfectant Cleaner Solution	Hydrogen Peroxide/ Quaternary Ammonium Compound	US Water Services
Peracetic Acid Titration Test Kit	Sulfuric Acid/ Ferrous Indicator/ Hydrogen Peroxide Titrant/ Potassium Iodide/ Peracetic Acid Titrant	Lamotte

2.6 Domestic Wastewater

Olam West Coast Inc., has an onsite septic system that is separate from this industrial wastewater management permit and is under a different permitting process through Oregon Administrative Rule, Chapter 340, Division 71 & 73. The 2006 OM&M Plan states there are 60 employees, a 1500-gallon septic tank and 250 linear feet of drainline. Utilizing OAR Chapter 340, Division 71 - Onsite rules, system sizing criteria is calculated using 15 gpd/person per 8-hour shift for predicted peak flow design. Showers, laundry or food service at the facility would increase these predicted flows. Monthly average flows to the onsite septic system should be one half of the predicted peak flow design. If either flow limit is exceeded, premature failure can result. Standard septic systems have an average lifespan of 20 to 40 years and require ongoing maintenance to ensure proper operation.

2.7 Wastewater System Classification

OAR 340-049 requires all permitted municipal wastewater collection and treatment facilities receive a classification based on the size and complexity of the systems. This system does not manage municipal

sewage and thus does not require a certified wastewater operator. The permit does require oversight by an environmental supervisor, which is described in Schedule D of the proposed permit.

3. Schedule A: Waste Disposal/Beneficial Use Limitations

3.1 Permitted System

The permittee is authorized to manage the following wastes only in accordance with the conditions of this permit and the facility Operations, Monitoring, and Management (OM&M) Plan:

- a. Vegetable Processing Wastewater,
- b. Vegetable Waste Solids and Process Related Residuals,
- c. Other wastewaters as approved by DEQ (washwater, boiler blowdown, non-contact cooling water)

At the time of this permit effective date the facility generates up to 20 million gallons of wastewater per year.

3.2 Requirements for Surface Water and Groundwater Protection

Direct discharge to navigable waters as defined in OAR Chapter 340 Division 045 Section 0010 (14) is prohibited.

All industrial wastewater and waste solids land applied pursuant to this permit must be applied at rates and methods which prevent the occurrence of runoff, erosion, leaching, or the likelihood of surface or groundwater contamination.

The permittee must manage and land apply all authorized wastewater and waste solids in compliance with the terms and conditions of this permit and in a manner that will prevent:

- a. A violation of the Department's Groundwater Quality Protection Rules (OAR 340-040), and
- b. A violation of any permit-specific groundwater concentration limits, established pursuant to OAR 340-040-0030, established by this permit, or which have been incorporated into the groundwater monitoring plan or permit by addendum.

3.3 Application Site Management

The permittee must manage all permitted wastewater for beneficial use at approved land application sites. The permittee must receive prior written authorization from DEQ before application of wastewater or waste solids at any new land application site. Authorized land

application sites must be identified in a DEQ approved OM&M plan or DEQ approved addendums to the OM&M plan.

Prior to the application of any industrial wastewater at an approved application site, the permittee must establish the water holding capacity (in/ft) for each of the top five feet of the soil column.

- d. The soil water holding capacity for each approved application site must be listed in the OM&M plan.
- e. Once approved by DEQ, the water holding capacity for each of the top 5 feet of the soil column at each approved application site must not be changed or modified without DEQ's written approval.

3.4 Wastewater Source Management and System Capacity

The permittee must receive written approval from DEQ before any new wastewater source is allowed to discharge to the permitted wastewater treatment system. An updated system capacity assessment to include an up to date nutrient and hydraulic balance for all influent sources and the lagoons and land application system must be provided with any request for an additional influent source. The facility must document capacity to accept additional flows and retain compliance with this permit.

The permittee must notify DEQ of changes in wastewater source water quality or quantity that may affect permit compliance.

3.5 Facility Land Application Operations

Land application of all permitted wastewaters must:

- a. Be managed to prevent channeling, ponding and runoff,
- b. Be distributed as evenly as practicable within each land application unit,
- c. Be land applied at or below DEQ-approved agronomic rates and within irrigation requirements to meet the crop needs,
- d. Only be conducted on lands where a crop will be grown in accordance with the conditions of this permit, unless otherwise approved in writing by DEQ,
- e. Only occur between March 1 through October 31 each year unless otherwise approved in writing by DEQ after completion of the Schedule C – Compliance Schedule required by this permit,
- f. Not occur on fields under which drainage tiles have been installed, unless by written approval from DEQ,
- g. Only occur at application sites with Land Use Compatibility Statements issued to the Permittee,
- h. Not be used for salinity leaching,
- i. Not occur during any condition that causes ponding and/or runoff from the site, such as freezing weather or precipitation, and

- j. Be conducted in a manner that prevents organic solids contained in the wastewater from accumulating on the ground surface to the point where the solids putrefy or support vectors or insects.

3.6 Wastewater and Waste Solids Collection, Storage, and Distribution

- a. The permittee must have adequate storage/treatment capacity, land and land distribution equipment to properly operate a beneficial use, land application program. All wastes are to be managed to prevent spills, unapproved discharges, odors and nuisance conditions, or impacts to the environment or public health. Odors and nuisance conditions may lead to pretreatment, changes to storage, or additional management practices to be implemented.
- b. The wastewater collections, treatment and land application system must not be hydraulically or organically loaded in excess of their respective, Department approved design capacities.
- c. All wastewater must be treated and stored for beneficial use by land irrigation.
- d. Wastewater storage/treatment lagoon(s) must be sufficiently lowered at the end of the growing season to allow for maximum storage/treatment over the winter (non-growing season) months.
- e. The storage/treatment lagoons must maintain a minimum 2 feet of freeboard at all times and must not be allowed to overtop.
- f. The permittee must notify DEQ prior to removal of storage/treatment lagoon solids. Accumulated solids must be removed as necessary to prevent odors, vector attraction, and/or other nuisance conditions.
- g. Management and disposal of wastewater derived solids must be conducted in accordance with a DEQ-approved OM&M plan or DEQ-approved addendums to the OM&M plan.
- h. The permittee must maintain wastewater piping/waste solids infrastructure and land application equipment to prevent unauthorized discharges.

3.7 Operations, Monitoring, and Management (OM&M) Plan

The permittee must conduct all activities pertaining to the management, treatment, and disposal of authorized wastes in accordance with an Operations, Monitoring and Management (OM&M) Plan meeting all DEQ requirements and approved in writing by DEQ. If provisions of the OM&M Plan conflict with conditions of this Permit, this Permit must prevail. Modification of the OM&M plan requires prior written approval from DEQ before implementation.

- a. No later than 90 days after the effective date of a renewed or modified permit, the Permittee must submit to DEQ a revised and complete OM&M plan that conforms to the terms and conditions of the renewed or modified permit.
- b. On or before March 1 of each year during the term of this permit, the permittee must submit to DEQ with the annual compliance report an update of the OM&M plan with any proposed modifications.

- c. The annual OM&M plan submittal must include a numbered list of proposed modifications. If no modifications to the OM&M plan are proposed, the facility must submit the plan noting that no changes are proposed.
- d. The annual OM&M submittal must include a statement certifying the facility has or has not complied with the OM&M over the previous year.
- e. The OM&M plan must include an up to date system capacity assessment (to include nutrient balance and hydraulic capacity assessments).
- f. The OM&M plan must describe the agronomic rate calculations and how these will be adjusted for environmental protection based on collected data from residual soils and harvest data.
- g. The OM&M Plan must include but not be limited to: all industrial wastewater and waste solid sources; a map and list of all land application sites and acreage; characteristics of influent and effluent wastewaters and/or permitted waste solids; wastewater/waste solids infrastructure (collection, storage, pumps and piping distribution system, land application equipment); safety data sheets for any chemical additives into the waste stream that may be land applied, a list of all crops to be grown along with their agronomic rate and associated yield and crude protein goals – with identification of the scientific sources used for their determination; crop irrigation requirements; estimation of crop production and removal for non-harvested crops (pasture); cover crop nitrogen contributions; crop irrigation which is to include scheduling/management practices that prevent moisture from leaving the rooting zone of the crop being grown along with Maximum Allowed Deficit (MAD) parameters; description of how flow is monitored for each field; soil moisture monitoring and soil testing protocols; and a description of how monitoring information will be presented in reports that are submitted to DEQ in order to ensure compliance with permit conditions. The OM&M plan must also address aging infrastructure.
- h. The following types of changes to an OM&M plan are considered substantial and may be considered a major permit modification as described in OAR 340-045-0055:
 - a. Addition of new land application areas not previously included in the OM&M;
 - b. Addition of any new wastewater or waste solid source;
 - c. Any changes that are likely to increase the risk of pollutant transport to surface water or groundwater.

3.8 Irrigation Efficiency and Ammonia Volatilization

The permittee must use an irrigation efficiency value of no less than 90% when calculating application site nitrogen loading as required by Schedule A(10). The Permittee must not include any claimed ammonia volatilization loss when determining crop nitrogen loading. Irrigation efficiency for hydraulic loading calculations must be approved in the facility OM&M plan based upon irrigation method used.

3.9 Nitrogen Availability and Loading

Unless otherwise authorized by DEQ in writing, the Permittee is prohibited from allowing the nitrogen available to crops at approved application sites to exceed the crop-specific agronomic rates listed in the approved OM&M Plan. For this permit, nitrogen available to an individual crop between field preparation, crop start, and crop harvest is the sum total of all nitrogen from the following sources:

- a. All soil residual nitrate (NO₃) and ammonium (NH₄) – Plant Available Nitrogen (PAN) in each foot of the crop-specific root zone,
- b. Total Nitrogen defined as Total Kjeldahl Nitrogen (TKN) plus all nitrate + nitrite-N in applied wastewater,
- c. Total Nitrogen defined as Total Kjeldahl Nitrogen (TKN) plus all nitrate + nitrite-N in supplemental irrigation water from any source,
- d. All nitrogen applied as commercial fertilizer,
- e. Plant Available Nitrogen from applied manure, crop residues, and/or cover crops tilled under (calculated per approved OM&M Plan), and
- f. All nitrogen from any other source between crop start and harvest.

Cover crops tilled under is considered crop harvest.

3.10 Agronomic Rates for Nitrogen

- a. Crop specific agronomic loading rates for nitrogen, will be evaluated by DEQ after consideration of agronomic rates published in appropriate, region specific, fertilizer guides proposed by the permittee. DEQ may require adjustment of the nitrogen amounts considered available at any land application site within the boundary of a groundwater management area or any area of the state where it is considers additional requirements are necessary to protect public health and the environment.
- b. Agronomic loading rates are to be evaluated for the nutrient requirement of the crop being grown on a field-by-field basis. The permittee must review and report yield data for the crop and associated nitrogen removal by the crop (as identified by crop tissue testing and post-harvest evaluation of soil residual nitrogen analysis). The permittee must adjust agronomic rates below the approved agronomic rate as necessary to comply with the provisions of this permit and to prevent adverse effects to groundwater.
- c. The Permittee must list the approved agronomic rates for all proposed crops in DEQ-approved OM&M plan. The listed agronomic rates may not be exceeded. Any request to increase agronomic rates must come from the permittee and be approved by DEQ in writing.
- d. Nitrogen loading from all sources must not exceed the agronomic rates as defined in the OM&M plan for the receiving crops. Agronomic rates must be determined from current Oregon State University Fertilizer Guides, or other scientific literature representing the growing area that has been approved for use in writing, in advance, by DEQ.

3.11 Hydraulic Loading and Leaching

Hydraulic loading from all water sources applied at the land application sites must not exceed the soil water holding capacity in the current crop rooting zone. Hydraulic loading is to be managed using the crop specific evapotranspiration (ET) rate on a monthly basis. The crop specific ET rate must be listed in the OM&M plan for each crop in the program.

Other than a prescribed leaching event pre-approved by the Department, the leaching of moisture and nutrients caused by means of irrigation beyond the 5th foot of the soil column is prohibited.

Active irrigation activities may saturate up to field capacity only the listed rooting depth of the current crop.

3.12 Non-Growing Season Irrigation

The Permittee must conduct all land application activities during the non-growing season in accordance with the permit and the facility OM&M Plan until the practice is ceased according to Schedule C of this permit. The non-growing season is defined by this permit as November 1st through February each year.

The OM&M plan must include, but is not limited to, the following terms and conditions for operations during the non-growing season:

- i. Non-growing season irrigation is to be limited to utilization of the available water-holding capacity in the top three (3) feet of the soil column, only, and
- ii. Non-growing season irrigation events will be planned based on the most recent soil moisture monitoring event.
- iii. These interim limits apply until November 1, 2026 when non-growing season wastewater will be stored.

Supplemental commercial nitrogen fertilizer application is not permitted from November 15 – February 15 without DEQ approval.

3.13 Domestic Wastewater

This permit does not authorize treatment and disposal of domestic wastewater (sanitary wastes). The permittee is prohibited from mixing and/or blending domestic wastewater with an authorized wastewater source.

4. Schedule B: Monitoring and Reporting Requirements

Detailed monitoring frequency and reporting requirements are in Schedule B of the proposed permit. The required monitoring, reporting and frequency for many of the parameters are based on DEQ’s monitoring and reporting matrix guidelines, to provide adequate data for DEQ to assess permit compliance, reporting requirements for similar facilities of this type and size and to ensure the needed data is available for the next permit renewal.

The monitoring data provide DEQ with information to evaluate the performance of the wastewater management facility, the lagoons, and land applied effluent. The authority to require periodic reporting by permittees is found at ORS 468.065(5).

Land application site soil monitoring and crop monitoring is included in order to assess agronomic rates of the crops and for the facility to make adjustments when necessary to prevent adverse impacts to groundwater in an impacted groundwater management area. The land application sites are to be managed as part of the wastewater treatment system, providing uptake of hydraulic and nutrients in the applied wastewater for beneficial use.

Groundwater monitoring is required in accordance with a DEQ-approved groundwater monitoring plan with quarterly monitoring and reporting. A comprehensive annual report is required by March 1 each year to document the facility’s annual land application activity and assessment of compliance with this permit and the OM&M plan. Specific permit deliverables are include in Table B1 of the permit:

Table B1: Facility Reporting Requirements

Reporting Requirement	Frequency	Due Date (See Note a.)	Report Form (See Note b.)	Submit To:
Facility Annual Report	Annually	March 1	Specified in Schedule B. Section 8 of this permit	Electronic reporting as directed by DEQ
Operations, Monitoring, and Management Plan	One-Time	Within 90 days of permit effective date	Specified in Schedule A. Section 8 of this permit	Electronic reporting as directed by DEQ
Operations, Monitoring, and Management Plan Annual Update	Annually	March 1	Specified in Schedule A. Section 8 of this permit	Electronic reporting as directed by DEQ

Reporting Requirement	Frequency	Due Date (See Note a.)	Report Form (See Note b.)	Submit To:
Quarterly Groundwater Report	Quarterly	By the 15 th of the following month	Specified in Schedule B. Section 9 of this permit	Electronic reporting as directed by DEQ
Groundwater Well Installation Workplan	One-Time	By June 30, 2023	Specified in Schedule D. Section 1 of this permit	Electronic reporting as directed by DEQ
Lagoon Leak Test Report	One-Time	October 15, 2024	Specified in Schedule D. Section 3 of this permit	As directed by DEQ

The permittee must also submit all required reports according to the assigned Schedule C: Compliance Schedule of the permit.

5. Schedule C: Compliance Schedule

The permit contains the following compliance schedule. The compliance schedule has been included in the permit renewal to provide a path and timeline for the facility to cease winter irrigation disposal of land applied wastewater. This practice has not been determined to be a beneficial use and poses risk to degradation of groundwater and must be ceased by the schedule outlined in the permit.

Complete By	Requirement
January 1, 2024	Submit a Preliminary Design Report to DEQ for review. The report must provide preliminary design for a Storage Addition or Storage Expansion necessary to cease the non-growing season disposal program. The preliminary design must include nitrogen and hydraulic balances to document system capacity upon completion of the project.
August 30, 2024	Submit 90% Plans and Specifications to DEQ for review of Storage Addition or Storage Expansion. The 90% plans must address all DEQ comments on the Preliminary Design Report.
February 28, 2025	The permittee must submit to DEQ: <ol style="list-style-type: none"> 1. Final draft plans and specifications in accordance with OAR 340-052 for the storage system. 2. A completed Land Use Compatibility Statement (LUCS) for the selected project.
April 1, 2026	Submit to DEQ a progress status report for the project.

November 1, 2026	The permittee must complete construction according to the approved plans and specifications and cease non-growing season wastewater disposal.
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No later than 14 days following each compliance date listed in the tables above, the permittee must notify DEQ in writing of its compliance or noncompliance with the requirements. Any reports of noncompliance must include the cause of noncompliance, any remedial actions taken, and a discussion of the likelihood of meeting the next scheduled requirement.

6. Schedule D: Special Conditions

The proposed permit contains the following special conditions. The conditions include the following:

6.1 Monitoring Well Network Improvements

The permittee must take the following actions regarding the monitoring well network at the site:

- a. By June 30, 2023, submit to DEQ a workplan to install a new upgradient well and new downgradient well for the land application site. The workplan must be reviewed and approved by DEQ prior to installation of the new wells.
- b. The permittee must complete the installation of the two new monitoring wells in accordance with the date provided in the DEQ approval of the well installation workplan. Upon completion of the installation of the monitoring wells, DEQ may require an update to the facility groundwater monitoring plan.

See Appendix I to this permit fact sheet for a summary of DEQ's hydrogeologic review as basis for this requirement.

6.2 Monitoring Well Management/Maintenance

The permittee must take the following actions regarding monitoring well management and maintenance:

- c. The Permittee must protect and maintain each groundwater monitoring well so that samples can be collected that are representative of actual conditions.
- d. All monitoring well abandonment, replacement and installation must be conducted to comply with the Water Resources Department Rules (OAR Chapter 690, Division 240) and with DEQ's Guidelines for Groundwater Monitoring Well Drilling, Construction, and Decommissioning. All monitoring well repairs, abandonments, replacements and installations must be documented in a report prepared by an Oregon-registered geologist.
- e. If a monitoring well becomes damaged or inoperable, the Permittee must notify DEQ in writing within 14 days. The written report must describe what problem has occurred, the remedial measures that have been taken to correct the problem, and the measures taken to prevent its recurrence. DEQ can require the replacement of inoperable monitoring wells.

- f. All new and replacement monitoring well locations and designs must be approved in writing by DEQ prior to well installation. Well logs and well completion reports must be submitted to DEQ within 30 days of well installation. Reports must include land survey drawings that depict actual location of all monitoring wells, land application areas, and surface waters.
- g. Modification and/or abandonment plans must be submitted to and approved by DEQ in writing prior to modification and/or abandonment of any existing monitoring well.

6.3 Lagoon Leak Test Report

The permittee must submit a Lagoon Leak Test Report one-time during the permit cycle as specified in Schedule B for each sediment trap lagoon. Leak testing must be completed using DEQ's *Guidelines for Estimating Leakage from Existing Sewage Lagoons* which is applicable to certain industrial operations with low strength wastewater. The report must include description of the test in line with the DEQ guidance, and a summary of results with estimated leak rate of each lagoon.

Upon review of the results of the required leak test, DEQ may require additional groundwater monitoring to assess impacts from lagoon leakage to groundwater at the site.

See Appendix I to this permit fact sheet for a summary of DEQ's hydrogeologic review as basis for this requirement.

6.4 Plans and Specifications Required

Prior to constructing or modifying wastewater management, treatment and disposal facilities, or groundwater monitoring facilities, detailed plans and specifications must be submitted to and approved by the Department in writing.

6.5 Spill Prevention and Response

An adequate contingency plan for prevention and handling of spills and unplanned discharges must be in force at all times. A continuing program of employee orientation and education must be maintained to ensure awareness of the necessity for good in-plant control and quick and proper action in the event of a spill or accident. The Permittee will include documentation of compliance with this requirement in the required OM&M plan.

6.6 Environmental Supervision Required

The Permittee must designate one or more environmental supervisors to coordinate and implement all necessary functions related to the maintenance and operation of waste management, treatment, and disposal facilities. This staff must have access to all information pertaining to the generation of wastes in the various process areas. The facility must maintain appropriate personnel and employ training to staff providing system oversight and managing land application activities.

6.7 Land Owner Agreements Required

The Permittee must maintain written agreements with the owners of each land application site that is not owned by the Permittee. The agreements must authorize the permitted treatment and disposal activities in accordance with this permit.

6.8 Total Nitrogen Availability

The Permittee must assume that all Total Kjeldahl Nitrogen (TKN) plus nitrate/nitrite-nitrogen applied to an authorized application site in wastewater becomes plant available during the crop season when calculating nitrogen loading rates.

6.9 Nitrogen Credits

The Permittee must credit all nitrogen and/or hydraulic loading after crop harvest and before re-seeding to the next re-seeded crop.

6.10 Sprinkler, Sampler and Flow Meter Maintenance

Sprinkler devices, above- and underground wastewater lines, auto-samplers, and flow-measuring devices must be maintained to ensure system integrity. Sprinkler nozzles that do not meet specification must be replaced within 30 days.

6.11 Public Notice Requirements

Prior to approving new permit coverage, permit renewal, major permit modification or substantial changes to an Operations, Monitoring and Management Plan, DEQ will provide public notice for participation and public hearing as per OAR 340-045.

6.12 Re-opener Clause

This permit may be re-opened and modified to include new or revised discharge limitations, monitoring, or reporting requirements, compliance conditions and schedules, and special conditions. If necessary, DEQ will commence modification of this permit by notifying the permittee and seeking public comment on the proposed modifications.

7. Schedule F: WPCF General Conditions

This schedule includes conditions and definitions that are applicable to industrial WPCF permits in Oregon of this type.

8. Next Steps

The permittee has submitted a completed WPCF permit renewal application and a required 14-day applicant review period has closed with DEQ considering comments submitted by the permittee. DEQ has posted the proposed permit action consistent with a Category II permitting action for public notification as required per OAR 340-045-0027.

DEQ will respond to comments received during the comment period. All those providing comment will receive a copy of DEQ's response. Interested parties may also request a copy of DEQ's response. Once comments are received and evaluated, DEQ will decide whether to issue the permit as proposed, to make changes to the permit, or to deny the permit. DEQ will notify the permittee of DEQ's decision. If substantive changes are made to the permit, then an additional public notice period may occur. DEQ may also revise this fact sheet or update the fact sheet through memorandum.

State of Oregon
Department of Environmental Quality

Memorandum

To: Justin Sterger, Eastern Region, Bend

Date: January 10, 2023

cc: DEQ File

From: Rick Hill, R.G., DEQ Eastern Region, Pendleton

Subject: Report: Jain Farm Fresh. Permit No. 101233. January 1, 2021—December 31, 2021:
Annual Report. Dated February 1, 2022

I reviewed the groundwater portion of the referenced Annual Report for the Olam Spices facility southwest of Boardman, Oregon.

The report indicates there are four monitoring wells at the site, MW-1, MW-1B, MW-2 and MW-3. The report indicates MW-1 and MW-1B are upgradient and unaffected by process water application. The report also states that MW-2 is downgradient, and that MW-3 is dry and concludes sampling results show there are no impacts to groundwater conditions from the land application area.

There is insufficient groundwater data to support the conclusions regarding groundwater at the site. The highest groundwater elevation at the site is at MW-1B. The elevation of groundwater at monitoring well MW-2 is lower than the elevation at MW-1B, but it is not a downgradient well. Monitoring well MW-3 was drilled to a depth of 208.50 feet and the top of the casing at MW-3 is at an elevation of 802.50 feet. That means the elevation of groundwater at monitoring well MW-3 is less than 594 feet. The elevation of groundwater at MW-2 is roughly 43 feet lower than the elevation of groundwater at MW-1B. However, the bottom of the dry screen at MW-3 is more than 95 feet below the elevation of groundwater at MW-1B and more than 51 feet below the elevation of groundwater at MW-2. This suggests that groundwater at the site is flowing to the northeast. This would mean that MW-2 is not a downgradient well, but more of a cross-gradient to upgradient well.

In addition, the water quality concentrations at MW-2 are significantly less than what is observed at MW-1B, providing additional information that supports the theory that MW-2 is not a downgradient well.

Based on both water level elevations and water quality it is apparent there is not an adequate well network at the site. The attached figure shows approximate well locations with their corresponding groundwater elevations and a guess at the likely groundwater flow direction. Based on this information a minimum of two additional monitoring wells are needed at the site. Two green polygons were added to the attached site diagram to show potential locations for new wells at the site.

In addition, I recommend performing leak tests on the process water ponds at the site. If the process water ponds show evidence of leakage additional wells may be needed to ensure groundwater is not being impacted from pond leakage.

If you have any questions, please feel free to contact me by email at rick.hill@deq.oregon.gov or by cell phone at (971) 263-1120.

Attachment: Olam Site Diagram

