Appendix A2:
Exposure Pathway Assessment

Exposure Pathway Assessment

This assessment is a conservative qualitative determination of whether there is any reason to believe that a complete or potentially complete pathway between contaminants of interest and ecological receptors exists or may exist in the locality of the facility. Locality of facility is defined in rule, and means any point where a human or an ecological receptor contacts, or is reasonably likely to come into contact with, facility-related hazardous substances, considering: a) the chemical and physical characteristics of the hazardous substances; b) physical, meteorological, hydrogeological, and ecological characteristics that govern the tendency for hazardous substances to migrate through environmental media or to move and accumulate through food webs; c) any human activities and biological processes that govern the tendency for hazardous substances to move into and through environmental media or to move and accumulate through food webs; and d) the time required for contaminant migration to occur based on the factors described above.

Note there are three attachments to this Exposure Pathway Assessment Appendix. Attachments 1 and 2 should be completed and submitted to DEQ along with a report or technical memorandum that generally follows the outline provided in Attachment 3. General exposure pathway assessment tasks are described below and refer to relevant attachments.

Tasks

(1) **Assess existing data**

Obtain the following information regarding the site and surrounding area for submittal to DEQ:

(a) Surface area of the site;
(b) Present and historical uses of the site and nearby properties;
(c) Current and reasonably likely future land and/or water use(s);
(d) Sensitive environments (as defined by OAR 340-122-115(49)) at, adjacent to, or in the locality of the site;
(e) Known or suspected presence of threatened and/or endangered species or their habitat in the locality of the facility (see text box below for resources to determine the presence of T&E species).
(f) Accurate site and regional maps showing structures, infrastructure, sampling locations, land use, wetlands, surface water bodies, sensitive environments, etc.;
(g) Types of hazardous substances reportedly released at the site;
(h) Magnitude and extent of migration of any hazardous substances reportedly released at the site.

Sources to Determine the Presence of Threatened and Endangered Species

Oregon: Consultation with the Oregon Biodiversity Information Center (ORBIC), provides information on state and federally listed rate, threatened and endangered species in Oregon that may occur at your Site. ORBIC is a part of the Institute for Natural Resources (INR) which is a cooperative enterprise of Oregon's public universities. Request and submit a data request for the occurrence of rare, threatened, and endangered species for your Site. Data requests can be submitted electronically: https://inr.oregonstate.edu/orbic. The Center provides site-specific species information within two miles of the given location.

Additional information and specific state and federal species lists can be found using the following resources.

- Oregon Listed: Oregon Department of Fish and Wildlife https://www.dfw.state.or.us/wildlife/diversity/species/threatened_endangered_candidate_list.asp
- Federally Listed:
  - U.S. Fish and Wildlife Service Information for Planning and Consultation https://ecos.fws.gov/ipac/
  - National Marine Fisheries Service https://www.fisheries.noaa.gov/national/endangered-species-conservation/esa-threatened-endangered-species

Note: Additional coordination with state or federal natural resource trustees and/or tribes may be needed to identify all relevant receptors of concern.

(2) **Perform initial site visit**

A visit to the site to directly assess ecological features, transport pathways, and conditions is typically required, except at very ecologically simple sites where aerial photographs and infrastructure maps suffice. The site itself, areas adjacent to the site, and areas in the locality of the site (as defined by OAR 340-122-115(34)) should all be visited. The size and complexity of the site will determine the time needed for this initial visit. While at the site, the following activities should be performed:

(a) Look for any signs (e.g. visual, olfactory, etc.) of a chemical release;

(b) Sketch the site topography, with special emphasis to surface water drainages and other potential hazardous substance migration pathways;

(c) Note any evident (e.g. visual, olfactory, etc.) signs of hazardous substance migration within the site or offsite;

(d) Look for signs of threatened and/or endangered species or their habitat within or adjacent to the site;

(e) As appropriate, note any evident signs (seeps, springs, cutbanks, etc.) for groundwater discharge to the surface;

(f) Note any natural or anthropogenic disturbances onsite;

(g) Make a photographic record of the site, with emphasis on ecological features and potential exposure pathways;

(h) Complete the Ecological Scoping Checklist (Attachment 1).

(3) Identify contaminants of interest (COIs)

Identification of contaminants of interest for ecological receptors may necessitate a separate identification process than that used for any human health evaluation, since a contaminant not generally considered a threat to human health may be a threat to biota. The list of COIs are those known or suspected to be present based on the remedial investigation, and are identified based on site-specific sources of contamination. The results of this evaluation are summarized by completing Attachment 1, Parts ❶ and ❷.

(4) Evaluate receptor-pathway interactions

Make an estimate, based on the site-specific information gathered in the previous three tasks and professional judgment, as to whether complete or potentially complete exposure pathways exist between COIs in a specific environmental media and ecologically important receptors associated with that media (e.g., between hazardous substances in surface water and fish). The results of this evaluation are summarized by completing Attachment 2.

(a) For the purpose of completing Attachment 2, complete or potentially complete exposure pathways are those that have: a source and mechanism for hazardous substance release to the environment, an environmental transport medium for the hazardous substance, a point of receptor contact (exposure point) with the contaminated media, and an exposure route to the receptor at the exposure point.

(i) For upland assessments, an exposure point is any area not covered by buildings, roads, paved areas or other barriers that would prevent wildlife from feeding on plants, earthworms, insects or other food or on the soil. Exposure areas generally exclude continuously disturbed or heavily landscaped areas adjacent to active operations that discourage wildlife use. Note that the absence of trees and shrubs does not eliminate exposure, as some species prefer areas with little or no vegetation (e.g., streaked horned lark and killdeer birds).

(ii) For aquatic assessments, an exposure point is sediment, wetland soils, and surface water.

(b) For the purpose of completing Attachment 2, the following species present in the LOF should be considered:

(i) Individual listed threatened and endangered species;

(ii) Local populations of species, including those that are recreational and/or commercial resources;

(iii) Local populations of any species with a known or suspected susceptibility to the hazardous substance(s);

(iv) Local populations of vertebrate species;

(v) Local populations of invertebrate species, such as those that:

- Provide food resource for higher organisms; or
- Perform a critical ecological function (such as organic matter decomposition) ; or
- Can be used as a surrogate measure of adverse effects for individuals or populations of other species.

(c) For the purpose of completing Attachment 2, "plants are those that form the habitat for local populations of species as defined above or are themselves listed as threatened and endangered species.

(d) Because they are not members of natural communities, any of the following should not be considered species of interest for the purpose of completing Attachment 2:

(i) Pest and opportunistic species that populate an area entirely because of artificial or anthropogenic conditions;

(ii) Domestic animals (e.g., pets and livestock);

(iii) Plants or animals whose existence is maintained by continuous human intervention (e.g., fish hatcheries, agricultural crops).

(5) Submit Tier I deliverable

This deliverable is a brief memorandum (see Attachment 3, Site Ecology Scoping Report, for suggested format and contents) detailing the results of the data review, site visit, and evaluation of receptors and pathways in the locality of the facility (LOF). It should present information in sufficient depth to give risk managers confidence in determining whether receptors and exposure pathways are or are not likely to exist at the site.

(a) Attachment 3, Items 1a through 1g are 1-2 paragraph summaries of site conditions, making reference to Items 4a through 4f as appropriate.

(b) Attachment 3, Item 2a is Part ❶ of Attachment 1.

(c) Attachment 3, Item 2b includes, at a minimum, Part ❷ of Attachment 1, as well as any other site-specific observations that the responsible party wishes to include.

(d) Attachment 3, Item 2c includes, at a minimum, Part ❸ of Attachment 1, as well as any other site-specific observations that the responsible party wishes to include.

(e) Attachment 3, Item 2d discusses efforts to observe species and/or habitats, particularly listed threatened or endangered species (or their habitat) at or adjacent to the site. Any such species or habitats should be noted on Part ❹ of Attachment 1.

(f) Attachment 3, Item 2e includes, at a minimum, Attachment 2, as well as any other site-specific observations that the responsible party wishes to include.

(g) Attachment 3, Item 3 describes recommendations made on the basis of specific criteria.

(6) **Determine whether potentially complete exposure pathways exist**

Based on information presented in the deliverable, do potential ecological receptors and potentially complete exposure pathways exist at or in the locality of the site? Specific criteria are as follows:

(a) If any of the "**Y**" or "**U**" boxes in Attachment 2 are checked, then a recommendation to move to risk assessment should be made. In completing this Attachment, a lack of knowledge, presence of high uncertainty, or any "unknown" circumstances should be tabulated as a "**U**".

(i) Note that a "**Y**" answer for any section requires that all three questions within that section be answered "**Y**" or "**U**".

(b) If all of the "**No**" boxes in Attachment 2 are checked, then complete exposure pathways to ecological receptors is unlikely, and therefore risk to ecological receptors is improbable. A recommendation for no further ecological investigations should be made.

ATTACHMENT 1
Ecological Scoping Checklist

Site Name	Stratus Village
Date of Site Visit	December 14, 2023 and February 21, 2024
Site Location	2450 SE Stratus Avenue, McMinnville OR
Site Visit Conducted by	Mike Reynolds, for Phase II ESA scope

Part ❶

CONTAMINANTS OF INTEREST IN LOCALITY OF FACILITY† Types, Classes, Or Specific Hazardous Substances ‡ Known Or Suspected	**Upland**	**Aquatic**
Chemicals of interest (COI) detected onsite can be found summarized in the Phase II ESA.	X	

‡ As defined by OAR 340-122-115(30) † As defined by OAR 340-122-115(34)

Part ❷

OBSERVED IMPACTS OBSERVED IN THE LOCALITY OF THE FACILITY	**Finding**
Onsite vegetation (**N**one, **L**imited, **E**xtensive)	L
Vegetation in the locality of the site (**N**one, **L**imited, **E**xtensive)	L
Onsite wildlife such as macroinvertebrates, reptiles, amphibians, birds, mammals, other (**N**one, **L**imited, **E**xtensive)	L
Wildlife such as macroinvertebrates, reptiles, amphibians, birds, mammals, other in the locality of the site (**N**one, **L**imited, **E**xtensive)	L
Other readily observable impacts (**N**one, **D**iscuss below)	N
Discussion:	
Onsite observation for the Phase II ESA only yielded observation of worms and domestic house cats from the adjacent property.	

ATTACHMENT 1
Ecological Scoping Checklist (cont'd)

Part ❸

SPECIFIC EVALUATION OF ECOLOGICAL RECEPTORS / HABITAT	Finding
Terrestrial - Wooded	
Percentage of site that is wooded — No trees on property	0%
Dominant vegetation type (**E**vergreen, **D**eciduous, **M**ixed)	N/A **P ***
Prominent tree size at breast height, i.e., four feet (<6", 6" to 12", >12")	N/A
Evidence / observation of wildlife (**M**acroinvertebrates, **R**eptiles, **A**mphibians, **B**irds, **M**ammals, **O**ther)	N/A
Terrestrial - Scrub/Shrub/Grasses	
Percentage of site that is scrub/shrub — Grass area	~10%
Dominant vegetation type (**Sc**rub, **Sh**rub, **G**rasses, **O**ther)	G **P**
Prominent height of vegetation (<2', 2' to 5', >5')	<2'
Density of vegetation (**D**ense, **P**atchy, **S**parse)	P **P**
Evidence / observation of wildlife (**M**acroinvertebrates, **R**eptiles, **A**mphibians, **B**irds, **M**ammals, **O**ther)	N/A
Terrestrial - Ruderal	
Percentage of site that is ruderal — Fallow crop land area	~90%
Dominant vegetation type (**L**andscaped, **A**griculture, **B**are ground)	A **P**
Prominent height of vegetation (0', >0' to <2', 2' to 5', >5')	>0 ' to <2'
Density of vegetation (**D**ense, **P**atchy, **S**parse)	D **P**
Evidence / observation of wildlife (**M**acroinvertebrates, **R**eptiles, **A**mphibians, **B**irds, **M**ammals, **O**ther)	worms
Aquatic - Non-flowing (lentic)	
Percentage of site that is covered by lakes or ponds	0%
Type of water bodies (**L**akes, **P**onds, **V**ernal pools, **I**mpoundments, **Lag**oon, **R**eservoir, **C**anal)	N/A
Size (acres), average depth (feet), trophic status of water bodies	N/A
Source water (**R**iver, **St**ream, **G**roundwater, **I**ndustrial discharge, **Su**rface water runoff)	N/A
Water discharge point (**N**one, **R**iver, **St**ream, **G**roundwater, **W**etlands impoundment)	N/A
Nature of bottom (**M**uddy, **R**ocky, **S**and, **C**oncrete, **O**ther)	N/A **P**
Vegetation present (**S**ubmerged, **E**mergent, **F**loating)	N/A **P**
Obvious wetlands present (**Y**es / **N**o)	No
Evidence / observation of wildlife (**M**acroinvertebrates, **R**eptiles, **A**mphibians, **B**irds, **M**ammals, **O**ther)	N/A
Aquatic - Flowing (lotic)	
Percentage of site that is covered by rivers, streams (brooks, creeks), intermittent streams, dry wash, arroyo, ditches, or channel waterway	0%
Type of water bodies (**R**ivers, **S**treams, **I**ntermittent Streams, **D**ry wash, **A**rroyo, **D**itches, **C**hannel waterway)	N/A
Size (acres), average depth (feet), approximate flow rate (cfs) of water bodies	N/A **P**
Bank environment (cover: **V**egetated, **B**are / slope: **S**teep, **G**radual / height (in feet))	N/A

SPECIFIC EVALUATION OF ECOLOGICAL RECEPTORS / HABITAT	Finding
Source water (**R**iver, **St**ream, **G**roundwater, **I**ndustrial discharge, **Su**rface water runoff)	N/A
Tidal influence (**Y**es / **N**o)	No
Water discharge point (**N**one, **R**iver, **St**ream, **G**roundwater, **W**etlands impoundment)	N/A
Nature of bottom (**M**uddy, **R**ocky, **S**and, **C**oncrete, **O**ther)	N/A
Vegetation present (**S**ubmerged, **E**mergent, **F**loating)	N/A
Obvious wetlands present (**Y**es / **N**o)	No
Evidence / observation of wildlife (**M**acroinvertebrates, **R**eptiles, **A**mphibians, **B**irds, **M**ammals, **O**ther)	N/A
Aquatic - Wetlands	
Obvious or designated wetlands present (**Y**es / **N**o)	No
Wetlands suspected as site is/has (**A**djacent to water body, in **F**loodplain, **S**tanding water, **D**ark wet soils, **M**ud cracks, **D**ebris line, **W**ater marks)	N/A
Vegetation present (**S**ubmerged, **E**mergent, **S**crub/shrub, **W**ooded)	N/A
Size (acres) and depth (feet) of suspected wetlands	N/A
Source water (**R**iver, **St**ream, **G**roundwater, **I**ndustrial discharge, **Su**rface water runoff)	N/A
Water discharge point (**N**one, **R**iver, **St**ream, **G**roundwater, **I**mpoundment)	N/A
Tidal influence (**Y**es / **N**o)	No
Evidence / observation of wildlife (**M**acroinvertebrates, **R**eptiles, **A**mphibians, **B**irds, **M**ammals, **O**ther)	N/A

: Photographic documentation of these features is highly recommended.

Part ❹

HABITATS AND SPECIES OBSERVED OR DOCUMENTED IN LOF
ditional information from Stratus Village team:
According to the USFWS Official Species List, eight federally-listed species have the potential to be present within the project area: Marbled Murrelet, Northern Spotted Owl, Streaked Horned Lark, Fender's Blue Butterfly, Monarch Butterfly, Kincaid's Lupine, Nelson's Checker-Mallow and Willamette Daisy.
No suitable habitat is believed to be present for the eight identified species.
No critical habitats were identified within the project area.
According to the NOAA Protected Resources App, there are no identified protected sites within the subject property boundaries and the project does not overlap with federally listed or proposed species and designated or protected critical habitats covered by NOAA fisheries.
Per the USFWS Critical Habitat for Threatened and Endangered Species map, the subject property is not located within any critical habitat areas.
On December 6, 2023, HUD, NMFS, USFWS, D3G, the project engineer and the project sponsor met during the Quarterly Meeting to review the project. The agencies had no concerns about USFWS-listed species. According to the USDA Natural Resources Conservation Service Web Soil Survey website, the subject property is identified as prime farmland and farmland of statewide importance. However, the property is located within an urbanized area; therefore the subject property is already in an area committed to urban development.

Data for Attachment 2 provided by Mike Reynolds,
Reynolds Engineering, LLC

ATTACHMENT 2
Evaluation of Receptor-Pathway Interactions

EVALUATION OF RECEPTOR-PATHWAY INTERACTIONS	Y	N	U
Are hazardous substances present or potentially present in surface waters? This includes tidal or seasonally inundated areas and wetlands. **AND** **Could hazardous substances reach these receptors via surface water?**			N/A
When answering the above questions, consider the following: • Known or suspected presence of hazardous substances in surface waters. • Ability of hazardous substances to migrate to surface waters. Consider migration pathways such as erosion of soils adjacent to aquatic environments (e.g., banks or riparian areas), subsurface preferential pathways (e.g., pipes), outfalls, groundwater discharges, and surface migration (e.g., ditches). • Terrestrial organisms may be dermally exposed to water-borne contaminants as a result of wading or swimming in contaminated waters. Aquatic receptors may be exposed through osmotic exchange, respiration or ventilation of surface waters. • Contaminants may be taken-up by terrestrial plants whose roots are in contact with surface waters. • Terrestrial receptors may ingest water-borne contaminants if contaminated surface waters are used as a drinking water source.			
Are hazardous substances present or potentially present in groundwater? **AND** **Could hazardous substances reach these receptors via groundwater?**			X
When answering the above questions, consider the following: • Known or suspected presence of hazardous substances in groundwater. • Ability of hazardous substances to migrate to groundwater. • Potential for hazardous substances to migrate via groundwater and discharge into habitats and/or surface waters. • Contaminants may be taken-up by terrestrial and rooted aquatic plants whose roots are in contact with groundwater present within the root zone (~1m depth). • Terrestrial wildlife receptors generally will not contact groundwater unless it is discharged to the surface.			

"Y" = yes; "N" = No, "U" = Unknown (counts as a "Y")

ATTACHMENT 2
Evaluation of Receptor-Pathway Interactions (cont'd)

EVALUATION OF RECEPTOR-PATHWAY INTERACTIONS	Y	N	U
Are hazardous substances present or potentially present in sediments? This includes tidal or seasonally inundated areas and wetlands. **AND** **Could hazardous substances reach receptors via contact with sediments?**			N/A
When answering the above questions, consider the following: • Known or suspected presence of hazardous substances in sediment. • Ability of hazardous substances to leach or erode from surface soils and be carried into sediment via surface runoff. • Potential for contaminated groundwater to upwell through, and deposit contaminants in, sediments. • If sediments are present in an area that is only periodically inundated with water, both aquatic and terrestrial species may exposed. Aquatic receptors may be directly exposed to sediments or may be exposed through osmotic exchange, respiration or ventilation of sediment pore waters. • Terrestrial species may be exposed to sediment in an area that is only periodically inundated with water. • If sediments are present in an area that is only periodically inundated with water, terrestrial species may have direct access to sediments for the purposes of incidental ingestion. Aquatic receptors may regularly or incidentally ingest sediment while foraging.			
Are hazardous substances present or potentially present in prey or food items of ecologically important receptors? **AND** **Could hazardous substances reach these receptors via consumption of food items?**	X		
When answering the above questions, consider the following: • Higher trophic level terrestrial and aquatic consumers and predators may be exposed through consumption of contaminated food sources. • In general, organic contaminants with log K_{ow} > 3.5 may accumulate in terrestrial mammals and those with a log K_{ow} > 5 may accumulate in aquatic vertebrates.			

"Y" = yes; "N" = No, "U" = Unknown (counts as a "Y") The Kow for DDE and Dieldrin are 6.51 and 6.2

ATTACHMENT 2
Evaluation of Receptor-Pathway Interactions (cont'd)

EVALUATION OF RECEPTOR-PATHWAY INTERACTIONS	Y	N	U
Are hazardous substances present or potentially present in surficial soils? **AND** **Could hazardous substances reach these receptors via incidental ingestion of or dermal contact with surficial soils?**	X		
When answering the above questions, consider the following: • Known or suspected presence of hazardous substances in surficial (~1m depth) soils. • Ability of hazardous substances to migrate to surficial soils. • Significant exposure via dermal contact would generally be limited to organic contaminants which are lipophilic and can cross epidermal barriers. • Exposure of terrestrial plants to contaminants present in particulates deposited on leaf and stem surfaces by rain striking contaminated soils (i.e., rain splash). • Contaminants in bulk soil may partition into soil solution, making them available to roots. • Incidental ingestion of contaminated soil could occur while animals grub for food resident in the soil, feed on plant matter covered with contaminated soil or while grooming themselves clean of soil.			
Are hazardous substances present or potentially present in soils? **AND** **Could hazardous substances reach these receptors via vapors or fugitive dust carried in surface air or confined in burrows?**	X		
When answering the above questions, consider the following: • Volatility of the hazardous substance (volatile chemicals generally have Henry's Law constant > 10^{-5} atm-m^3/mol and molecular weight < 200 g/mol). • Exposure via inhalation is most important to organisms that burrow in contaminated soils, given the limited amounts of air present to dilute vapors and an absence of air movement to disperse gases. • Exposure via inhalation of fugitive dust is particularly applicable to ground-dwelling species that could be exposed to dust disturbed by their foraging or burrowing activities or by wind movement. • Foliar uptake of organic vapors would be limited to those contaminants with relatively high vapor pressures. • Exposure of terrestrial plants to contaminants present in particulates deposited on leaf and stem surfaces.			

"Y" = yes; "N" = No, "U" = Unknown (counts as a "Y")

ATTACHMENT 3
Deliverable - Site Ecology Scoping Report
Outline

(1) **EXISTING DATA SUMMARY**
- (a) Site location 2450 SE Stratus Avenue, McMinnville OR 97128
- (b) Site history Historical farming. Current property is vacant. See Phase I ESA and Phase II ESA for details.
- (c) Site land and/or water use(s)
  - (i) Current Vacant property, see photos
  - (ii) Future Affordable Housing project
- (d) Known or suspected hazardous substance releases See Phase II ESA provided
- (e) Sensitive environments None known on site, riparian area and South Yamhill River located ~0.25 miles away
- (f) Threatened and/or endangered species (USFWS/ODFW/NMFS data) Included as attachments. No T&E on site. Chinook and Steelhead in site adjacent South Yamhill. Please reference the biodiversity report and Fish and Wildlife letters attached.

(2) **SITE VISIT SUMMARY**
- (a) Contaminants of Interest (Part ❶, Attachment 1) Please reference Phase II ESA
- (b) Observed impacts (Part ❷, Attachment 1)
- (c) Ecological features (Part ❸, Attachment 1)
- (d) Ecologically important species/habitats (Part ❹, Attachment 1)
  - (i) Threatened and/or endangered species
  - (ii) Threatened and/or endangered species habitat
- (e) Exposure pathways (Attachment 2) Please reference a table included comparing COI measures with DEQ's ecological risk RBCs for non T&E species.

(3) **RECOMMENDATIONS** See below.

(4) **ATTACHMENTS**
- (a) Regional map showing location of site Included in PDF
- (b) Local map showing site in relation to adjacent property Included in PDF
- (c) Aerial photograph or map of LOF and adjacent areas within ¼ mile showing zoning, current land use, location of surface water, critical habitat, and sensitive environments. Floodplain and wetlands inventory maps included
- (d) Topographic map Included in PDF
- (e) Figures showing source/release areas, estimated areas of contamination, and surface features such as pavement, stormwater catch basins/drainage systems including outfalls, dry wells, or stormwater swales. Existing conditions plan C0.02 included. Currently vacant property.
- (f) Site photograph(s) Included in PDF
- (g) Documentation of the likelihood of T&E species to be present in the LOF. U.S. Department of the Interior Letter from Fish & Wildlife included, as well as Biodiversity Report.

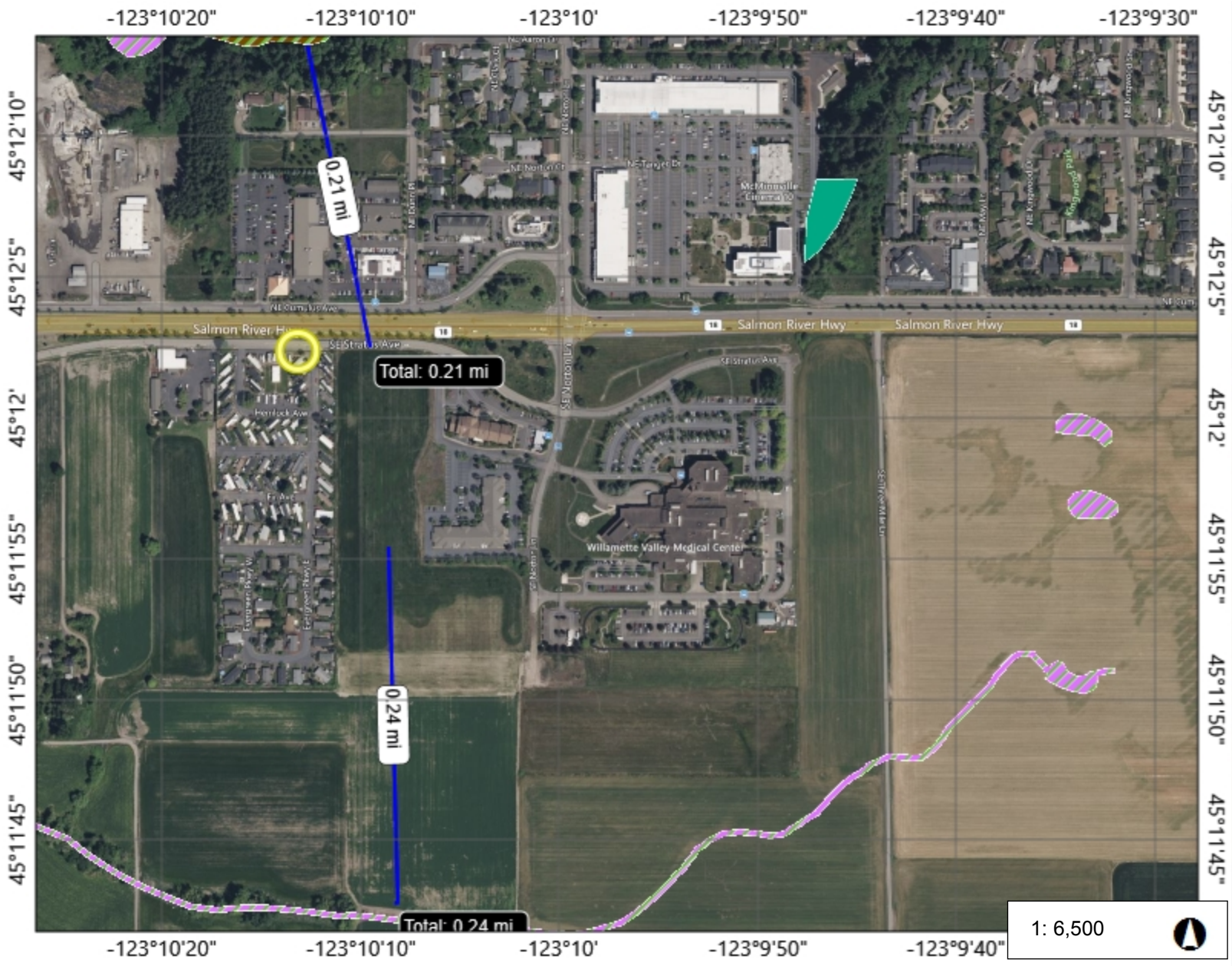
(5) **REFERENCES / DATA SOURCES**

Based on suspected/measured hazardous substances at the site and complete exposure pathways for plants, invertebrates, birds, and mammals exposed to soil, recommend comparing COI measurements with DEQ's ecological soil RBCs (for non T&E species). This is a Tier I Ecological Risk Assessment.

The site is ~0.20-0.25 miles from the sensitive habitat represented by the South Yamhill River and associated riparian zone. However, there is not a clear connection from the proposed site to the sensitive area. To address any concerns about this sensitive area during site development, permit conditions will be followed regarding wastewater and stormwater treatment during construction. The team is working concurrently with Kathy Jacobsen at Oregon DEQ for a 1200C permit that will be followed during construction.

OREGON EXPLORER

Map



Legend

States & Provinces
- Other States and Provinces
- Oregon

LWI Probable Wetland Polygons
LWI Wetlands
- Persistent Nontidal
- Seasonal Nontidal
- Saturated Nontidal

NWI Wetlands
More Oregon Wetlands
Oregon's Greatest Wetlands

Notes

Add your notes here

0.2 0 0.10 0.2 Miles

WGS_1984_Web_Mercator_Auxiliary_Sphere

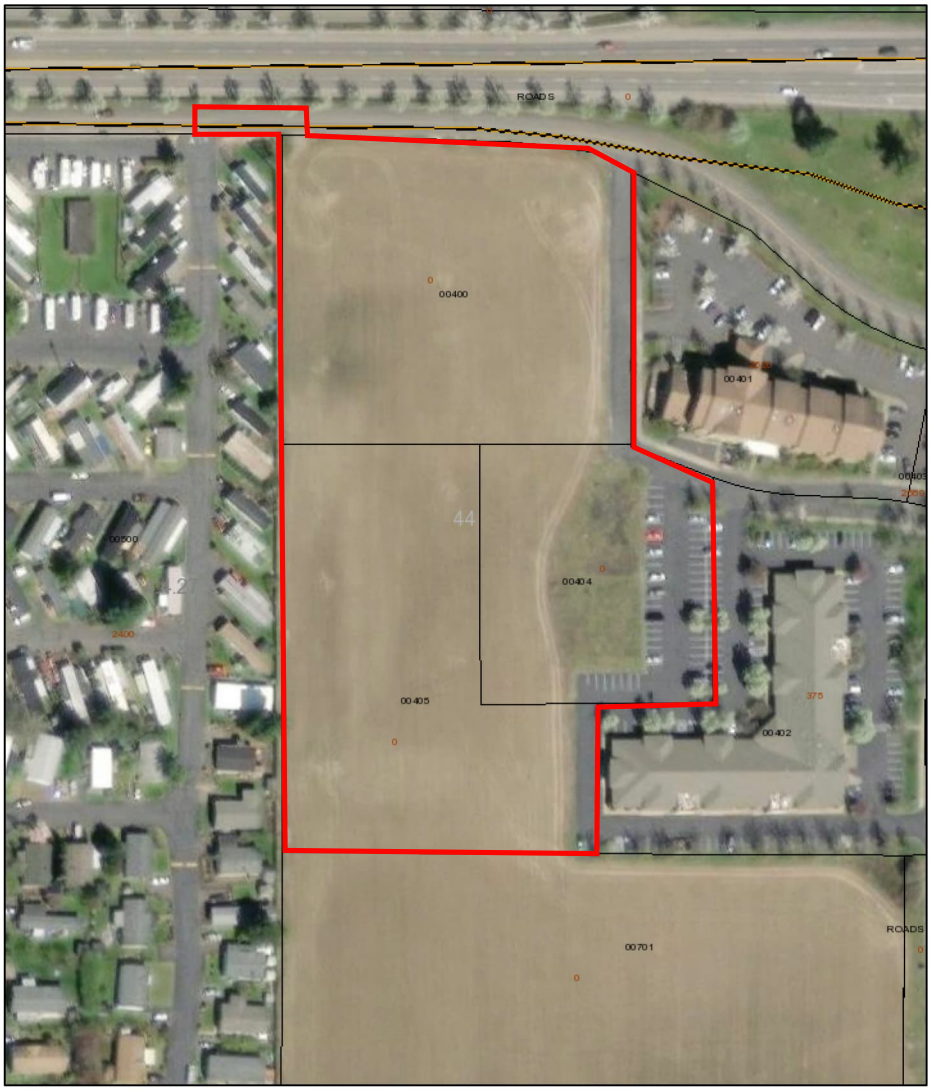
This map is a user generated static output for reference only from: ORWAP and SFAM Map Viewer

Data layers that appear on this map may or may not be accurate, current, or reliable.
THIS MAP IS NOT TO BE USED FOR NAVIGATION.

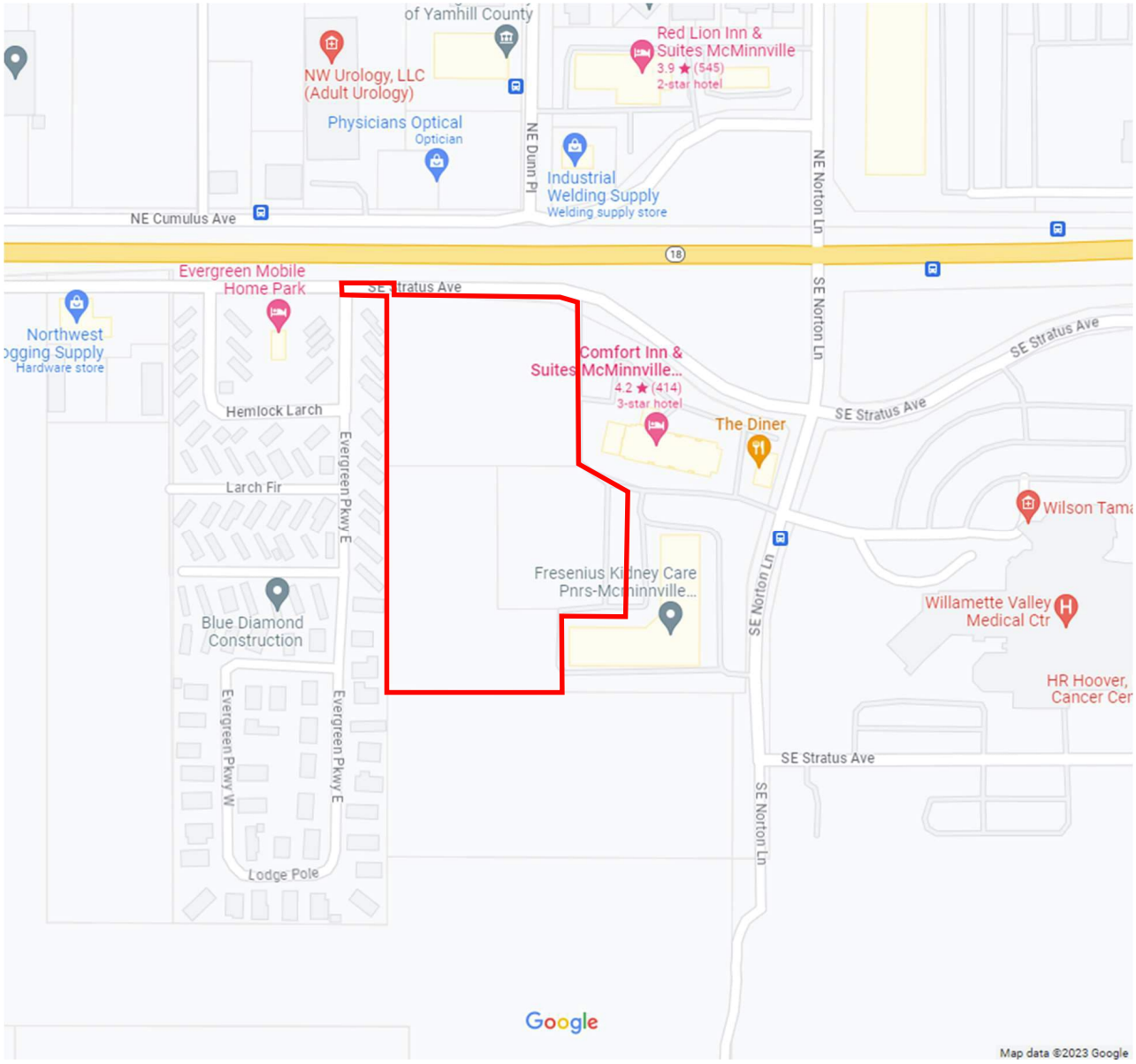
Based on contaminants of interest for this site and complete exposure pathways (attachment 2) for

Appendix A Site Topographic Map	↑ N	Stratus Village 235 Southeast Stratus Avenue McMinnville, Oregon *Topographic Quadrangle:* *McMinnville, Oregon 2020*	**DOMINION** **DUE DILIGENCE** **GROUP**

Yamhill County Parcel Map



Appendix A Tax Map	↑ N	Stratus Village 235 Southeast Stratus Avenue McMinnville, Oregon *Taxlot #'s R4427-00400, R4427-00404, and R4427-00405*	**DOMINION DUE DILIGENCE GROUP**



Appendix A Site Locator Map	↑ N	Stratus Village 235 Southeast Stratus Avenue McMinnville, Oregon	**DOMINION DUE DILIGENCE GROUP**

U.S. Fish and Wildlife Service
National Wetlands Inventory

NWI Map

October 19, 2023

Wetlands

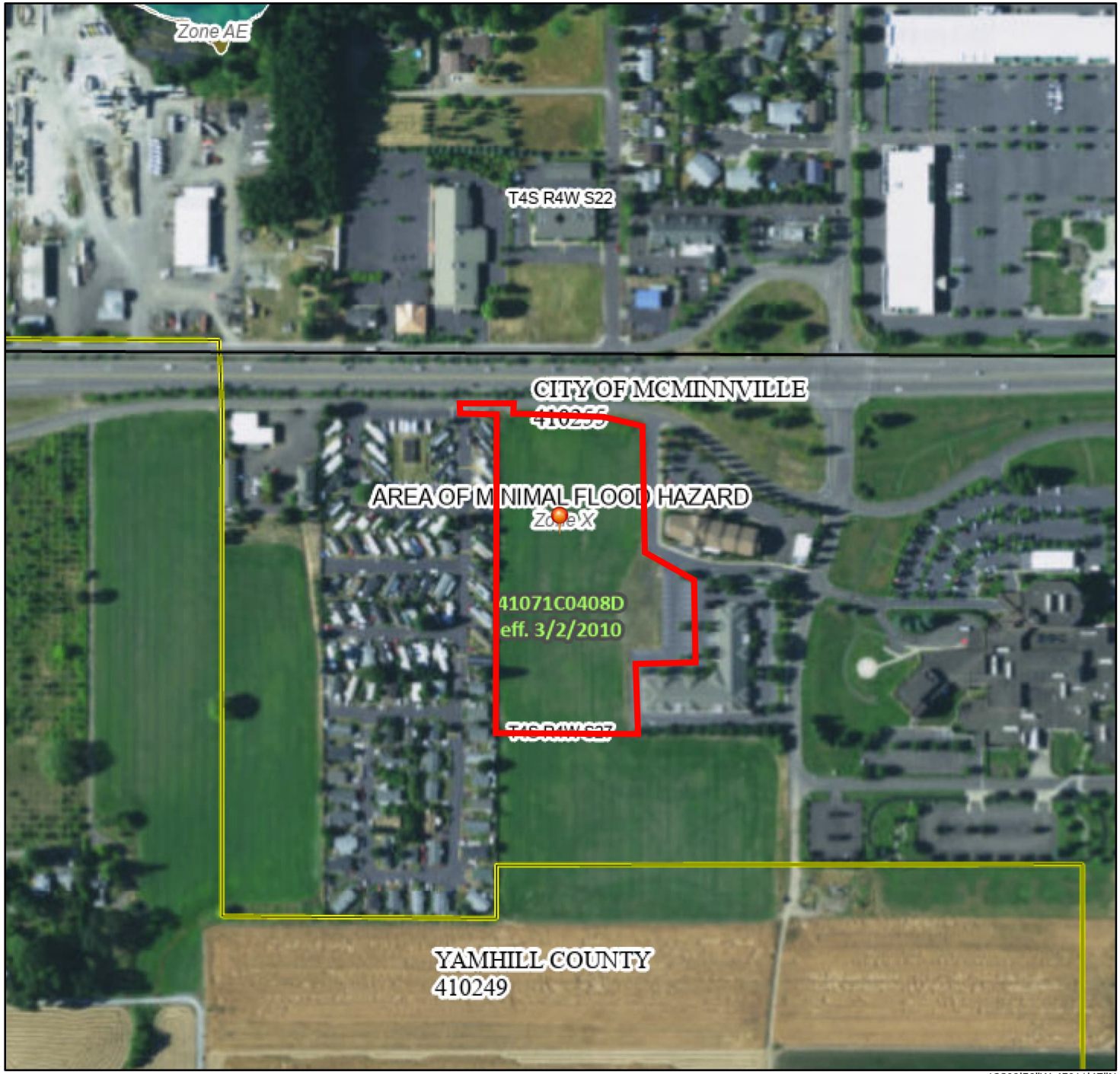
- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- Other
- Riverine

This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.

National Flood Hazard Layer FIRMette

FEMA

123°10'28"W 45°12'12"N



123°9'50"W 45°11'47"N

0 250 500 1,000 1,500 2,000 Feet

1:6,000

Basemap Imagery Source: USGS National Map 2023

Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

- **SPECIAL FLOOD HAZARD AREAS**
  - Without Base Flood Elevation (BFE) *Zone A, V, A99*
  - With BFE or Depth *Zone AE, AO, AH, VE, AR*
  - Regulatory Floodway
- **OTHER AREAS OF FLOOD HAZARD**
  - 0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile *Zone X*
  - Future Conditions 1% Annual Chance Flood Hazard *Zone X*
  - Area with Reduced Flood Risk due to Levee. See Notes. *Zone X*
  - Area with Flood Risk due to Levee *Zone D*
- **OTHER AREAS**
  - NO SCREEN Area of Minimal Flood Hazard *Zone X*
  - Effective LOMRs
  - Area of Undetermined Flood Hazard *Zone D*
- **GENERAL STRUCTURES**
  - Channel, Culvert, or Storm Sewer
  - Levee, Dike, or Floodwall
- **OTHER FEATURES**
  - 20.2 Cross Sections with 1% Annual Chance
  - 17.5 Water Surface Elevation
  - Coastal Transect
  - 513 Base Flood Elevation Line (BFE)
  - Limit of Study
  - Jurisdiction Boundary
  - Coastal Transect Baseline
  - Profile Baseline
  - Hydrographic Feature
- **MAP PANELS**
  - Digital Data Available
  - No Digital Data Available
  - Unmapped

N

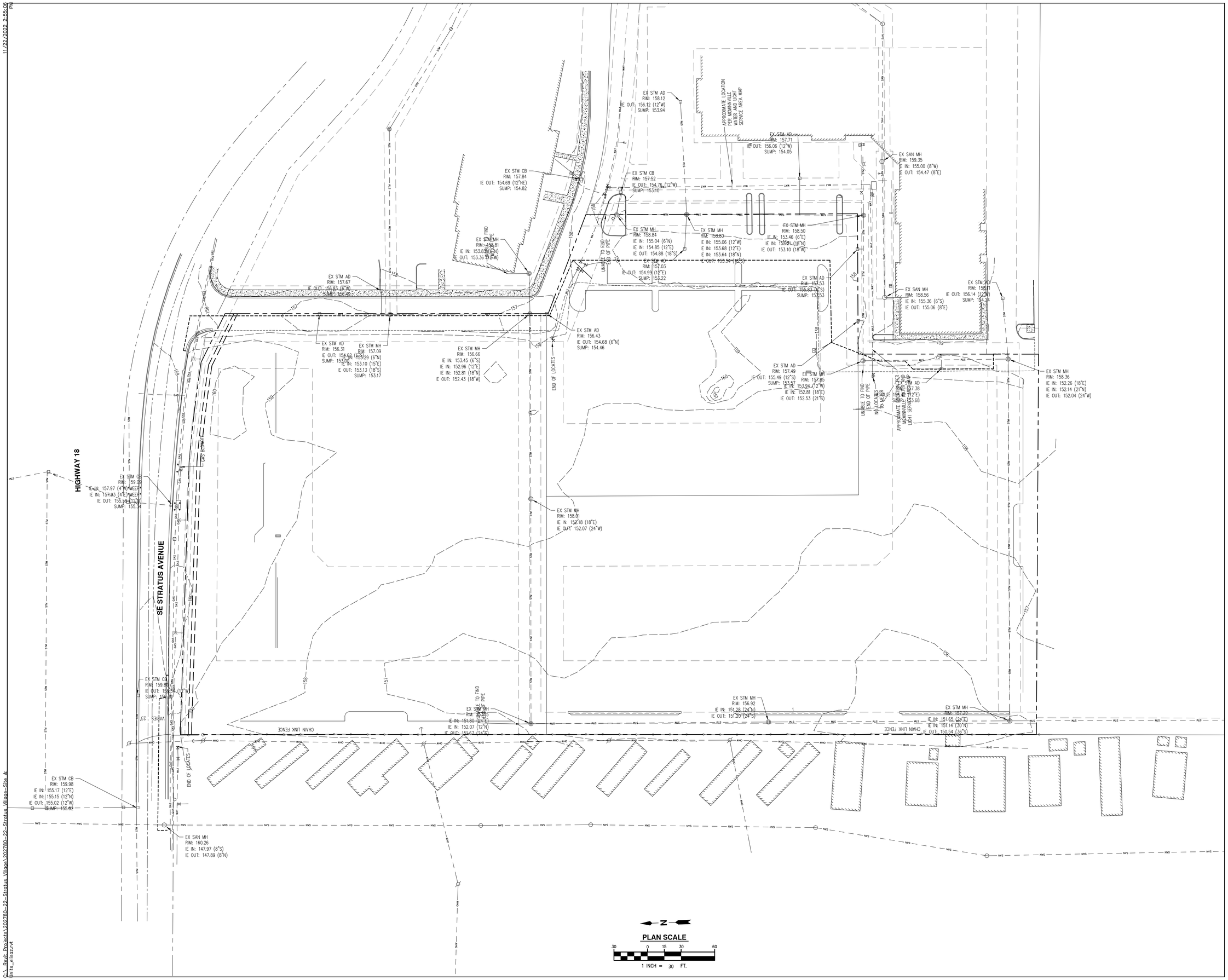
The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 10/4/2023 at 3:26 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

11/22/2022 2:55:05 PM



C:\Revit Projects\202780-22-Stratus Village\202780-22-Stratus Village-Site & Units_ellisoz.rvt

REGISTERED PROFESSIONAL ENGINEER
56487PE
OREGON
JANUARY 09, 2009
JANET L. TURNER
EXPIRATION DATE: 06/30/24

Ankrom Moisan

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STRATUS VILLAGE – SITE & UNITS

2450 SE STRATUS AVE, McMINNVILLE, OR 97128

HOUSING AUTHORITY OF YAMHILL COUNTY

REVISION	DATE	REASON FOR ISSUE
A	9/21/23	PERMIT COMMENTS #1
1	10/11/23	GMP ADD 01
2	4/11/24	IFC SET

JTE
Janet Turner Engineering, LLC

EXISTING CONDITIONS PLAN

PERMIT SET

DATE 6/5/2023

PROJECT NUMBER 202780

SHEET NUMBER

C0.02


Stratus Avenue frontage
Looking East down Right of Way
Photo August 2023


Stratus Avenue frontage
Looking East toward neighboring
hotel property


Stratus Avenue Property
Looking South with Mobile
Home Property to the West

REYNOLDS ENGINEERING, LLC

APPENDIX B

Photographs of Sampling Activities

Photo 1 - View of soil sampling activities at sample location C10 in the north-central portion of the Subject Property, looking north. (12/14/2023)

Photo 2 - View of soil sampling location C8 in the southwest corner of the Subject Property, looking north. (12/14/2023)

Photo 3 - View of soil sampling activities at sample location C14 in the south-central portion of the Subject Property, looking north/northeast. (12/14/2023)

Photo 4 - Closeup view of the soil sample collected at sample location C14. (12/14/2023)

REYNOLDS ENGINEERING, LLC 926 SE Umatilla Street Portland, Oregon	Phase II Environmental Site Assessment Stratus Village 2450 SE Stratus Ave McMinnville, Oregon	**PHOTOGRAPHS OF SAMPLING ACTIVITIES** March 2024 Job #23-001-020	Figure No. **B1**

Photo 5 - View of the northern portion of the grass field at the east-central portion of the Subject Property, looking north. The area was overlain with a 2-to-3-inch layer of gravel. (12/14/2023)

Photo 6 - Closeup view of the gravel layer at the northern portion of the grass field area. A black filter fabric was observed beneath the gravel layer (not yet exposed in the photo above). (12/14/2023)

Photo 7 - View of mounded materials in the southern portion of the grass field area, looking north/northwest. (12/14/2023)

Photo 8 - View of mounded materials within the the grass field area, looking northeast from the crop field. (12/14/2023)

Photo 9 - View of follow-up soil sampling activities at sample location C1, looking north. A 1-foot hole was 1st dug with a shovel. (2/21/2024)

Photo 10 - View of follow-up sampling location C1 showing the depth the initial hole. (2/21/2024)

Photo 11 - View of follow-up soil sampling from the bottom of the hole at sampling location C1. (2/21/2024)

Photo 12 - View of follow-up soil sampling activities at sample location C6, looking north. The shovel is at the previous sampling location. (2/21/2024)

REYNOLDS ENGINEERING, LLC 926 SE Umatilla Street Portland, Oregon	Phase II Environmental Site Assessment Stratus Village 2450 SE Stratus Ave McMinnville, Oregon	**PHOTOGRAPHS OF SAMPLING ACTIVITIES** March 2024 Job #23-001-020	Figure No. **B3**

Photo 13 - View of a hand auger sample being collected at sample location C13. (2/21/2024)

Photo 14 - View of follow-up sampling location G1 showing the depth the initial hole as well as the black filter fabric layer. (2/22/2024)

Biodiversity Report

45.1998°N, -123.1693°W

Location Information

Latitude:	45°11'59"N	Longitude:	-123°10'09"W
Latitutde (Decimal Minutes):	45°11.9833'N	Longitude (Decimal Minutes):	-123°10.15'W
Latitutde (Decimal Degrees):	45.1998°N	Longitude (Decimal Degrees):	-123.1693°W
USGS Quad:	McMinnville, 45123-B2	Maidenhead Grid Square (ARRL):	CN85JE
Legal (Township Range Section):	Section 21 of Township S4, Range W4	County:	Yamhill County
Magnetic Declination:	(on 2024-5-6) 14.785 deg (east) Annual change (minutes/year): -5.6 deg (east) (based on 2020 model)		
Elevation:	148 ft	Avg Annual Precipitation:	40 in (inches)
Watershed (10 Digit HUC):	Yamhill River (1709000807)		
Sub-watershed (12 Digit HUC):	South Yamhill River (170900080701)		
Fire Protection District:	N/A	ODF Regulated Use:	Not Available
Fire Weather Zone:	604	ODFW Wildlife Management Unit:	WILLAMETTE
Public Ownership:	Private -		

Animal Species (Aquatic Habitat Associated) in Sub-watershed South Yamhill River (170900080701)

*** See Appendix for Status and Rank Code Lookup*

1	Western pond turtle	*Actinemys marmorata*	Relative Abundance Index: *1*			
	Global Rank: *G3*	Federal Status: *SOC*	*View in Wildlife Viewer*
	State Rank: *S2*	State Rank: *SC*	
	FPA:	Strategy Species: *Y*	*View Habitat Map (pdf)*
2	Great blue heron	*Ardea herodias*	Relative Abundance Index: *0.82*			
	Global Rank: *G5*	Federal Status:	*View in Wildlife Viewer*
	State Rank: *S4*	State Rank:	
	FPA: *Y*	Strategy Species:	*View Habitat Map (pdf)*
3	Green heron	*Butorides virescens*	Relative Abundance Index: *0.82*			
	Global Rank: *G5*	Federal Status:	*View in Wildlife Viewer*
	State Rank: *S4*	State Rank:	
	FPA:	Strategy Species:	*View Habitat Map (pdf)*
4	Vaux's swift	*Chaetura vauxi*	Relative Abundance Index: *0.83*			
	Global Rank: *G5*	Federal Status:	*View in Wildlife Viewer*
	State Rank: *S4B*	State Rank:	
	FPA:	Strategy Species:	*View Habitat Map (pdf)*
5	Painted turtle	*Chrysemys picta*	Relative Abundance Index: *1.17*			
	Global Rank: *G5*	Federal Status:	*View in Wildlife Viewer*
	State Rank: *S2*	State Rank: *SC*	
	FPA:	Strategy Species: *Y*	*View Habitat Map (pdf)*
6	Olive-sided flycatcher	*Contopus cooperi*	Relative Abundance Index: *0.52*			
	Global Rank: *G4*	Federal Status:	*View in Wildlife Viewer*
	State Rank: *S2S3B*	State Rank: *SC/S*	
	FPA:	Strategy Species: *Y*	*View Habitat Map (pdf)*

Biodiversity Report

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7	Townsend's big-eared bat	*Corynorhinus townsendii*	Relative Abundance Index: *1.52*		
	Global Rank: *G4*	Federal Status: *No status*			
	State Rank: *S2*	State Rank: *SC*			
	FPA:	Strategy Species: *Y*			
				View in Wildlife Viewer	
				View Habitat Map (pdf)	
8	Pacific giant salamander	*Dicamptodon tenebrosus*	Relative Abundance Index: *0.74*		
	Global Rank: *G5*	Federal Status:			
	State Rank: *S4*	State Rank:			
	FPA:	Strategy Species:			
				View in Wildlife Viewer	
				View Habitat Map (pdf)	
9	Willow flycatcher	*Empidonax traillii*	Relative Abundance Index: *0.62*		
	Global Rank: *G5*	Federal Status: *PS*			
	State Rank: *S3B*	State Rank:			
	FPA:	Strategy Species: *Y*			
				View in Wildlife Viewer	
				View Habitat Map (pdf)	
10	Big brown bat	*Eptesicus fuscus*	Relative Abundance Index: *1.02*		
	Global Rank: *G5*	Federal Status:			
	State Rank: *S4*	State Rank:			
	FPA:	Strategy Species:			
				View in Wildlife Viewer	
				View Habitat Map (pdf)	
11	Bald eagle	*Haliaeetus leucocephalus*	Relative Abundance Index: *0.82*		
	Global Rank: *G5*	Federal Status: *DL*			
	State Rank: *S4B,S4N*	State Rank:			
	FPA: *Y*	Strategy Species:			
				View in Wildlife Viewer	
				View Habitat Map (pdf)	
12	Yellow-breasted chat	*Icteria virens*	Relative Abundance Index: *1.09*		
	Global Rank: *G5*	Federal Status:			
	State Rank: *S4B*	State Rank: *SC*			
	FPA:	Strategy Species: *Y*			
				View in Wildlife Viewer	
				View Habitat Map (pdf)	
13	Silver-haired bat	*Lasionycteris noctivagans*	Relative Abundance Index: *0.52*		
	Global Rank: *G3G4*	Federal Status:			
	State Rank: *S3S4*	State Rank: *S*			
	FPA:	Strategy Species: *Y*			
				View in Wildlife Viewer	
				View Habitat Map (pdf)	
14	Hoary bat	*Lasiurus cinereus*	Relative Abundance Index: *0.75*		
	Global Rank: *G3G4*	Federal Status: *No status*			
	State Rank: *S3*	State Rank: *S*			
	FPA:	Strategy Species: *Y*			
				View in Wildlife Viewer	
				View Habitat Map (pdf)	
15	Hooded merganser	*Lophodytes cucullatus*	Relative Abundance Index: *0.59*		
	Global Rank: *G5*	Federal Status:			
	State Rank: *S4*	State Rank:			
	FPA:	Strategy Species:			
				View in Wildlife Viewer	
				View Habitat Map (pdf)	
16	Common merganser	*Mergus merganser*	Relative Abundance Index: *1.22*		
	Global Rank: *G5*	Federal Status:			
	State Rank: *S4*	State Rank:			
	FPA:	Strategy Species:			
				View in Wildlife Viewer	
				View Habitat Map (pdf)	
17	California myotis	*Myotis californicus*	Relative Abundance Index: *1.01*		
	Global Rank: *G5*	Federal Status:			
	State Rank: *S3*	State Rank: *S*			
	FPA:	Strategy Species: *Y*			
				View in Wildlife Viewer	
				View Habitat Map (pdf)	

Biodiversity Report

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18	Long-eared myotis	*Myotis evotis*		Relative Abundance Index: *0.99*	
	Global Rank: *G5*		Federal Status:		View in Wildlife Viewer
	State Rank: *S4*		State Rank:		View Habitat Map (pdf)
	FPA:		Strategy Species:		
19	Little brown myotis	*Myotis lucifugus*		Relative Abundance Index: *1*	
	Global Rank: *G3G4*		Federal Status: *UR*		View in Wildlife Viewer
	State Rank: *S3*		State Rank:		View Habitat Map (pdf)
	FPA:		Strategy Species:		
20	Fringed myotis	*Myotis thysanodes*		Relative Abundance Index: *1.12*	
	Global Rank: *G4*		Federal Status:		View in Wildlife Viewer
	State Rank: *S2*		State Rank: *S*		View Habitat Map (pdf)
	FPA:		Strategy Species: *Y*		
21	Long-legged myotis	*Myotis volans*		Relative Abundance Index: *1*	
	Global Rank: *G4G5*		Federal Status:		View in Wildlife Viewer
	State Rank: *S3*		State Rank: *S*		View Habitat Map (pdf)
	FPA:		Strategy Species: *Y*		
22	Yuma myotis	*Myotis yumanensis*		Relative Abundance Index: *1*	
	Global Rank: *G5*		Federal Status:		View in Wildlife Viewer
	State Rank: *S3*		State Rank:		View Habitat Map (pdf)
	FPA:		Strategy Species:		
23	Steelhead (Upper Willamette River ESU,	*Oncorhynchus mykiss pop. 33*		Relative Abundance Index: *1.78*	
	Global Rank: *G5T2Q*		Federal Status: *T*		
	State Rank: *S2*		State Rank: *S*		
	FPA:		Strategy Species: *Y*		
24	Chinook salmon (Upper Willamette River	*Oncorhynchus tshawytscha pop. 32*		Relative Abundance Index: *2.29*	
	Global Rank: *G5T2Q*		Federal Status: *T*		
	State Rank: *S2*		State Rank: *SC*		
	FPA:		Strategy Species: *Y*		
25	Band-tailed pigeon	*Patagioenas fasciata*		Relative Abundance Index: *0.52*	
	Global Rank: *G4*		Federal Status:		View in Wildlife Viewer
	State Rank: *S3B*		State Rank:		View Habitat Map (pdf)
	FPA: *Y*		Strategy Species:		
26	Dunn's salamander	*Plethodon dunni*		Relative Abundance Index: *0.9*	
	Global Rank: *G4*		Federal Status:		View in Wildlife Viewer
	State Rank: *S4*		State Rank:		View Habitat Map (pdf)
	FPA:		Strategy Species:		
27	Purple martin	*Progne subis*		Relative Abundance Index: *0.8*	
	Global Rank: *G5*		Federal Status:		View in Wildlife Viewer
	State Rank: *S2B*		State Rank: *SC*		View Habitat Map (pdf)
	FPA:		Strategy Species: *Y*		
28	Pacific water shrew	*Sorex bendirii*		Relative Abundance Index: *0.55*	
	Global Rank: *G4*		Federal Status:		View in Wildlife Viewer
	State Rank: *S4*		State Rank:		View Habitat Map (pdf)
	FPA:		Strategy Species:		

Steelhead and Chinook Salmon are the only threatened or endangered species listed in this report. They are not present directly on site, but in the South Yamhill which is <0.25 miles away from the site.

Biodiversity Report

45.1998°N, -123.1693°W

29 Vagrant shrew — *Sorex vagrans* — Relative Abundance Index: *1.01*

Global Rank: *G5*
State Rank: *S4*
FPA:
Federal Status:
State Rank:
Strategy Species:
View in Wildlife Viewer
View Habitat Map (pdf)

30 Northern rough-winged swallow — *Stelgidopteryx serripennis* — Relative Abundance Index: *1.05*

Global Rank: *G5*
State Rank: *S4*
FPA:
Federal Status:
State Rank:
Strategy Species:
View in Wildlife Viewer
View Habitat Map (pdf)

Biodiversity Report

45.1998°N, -123.1693°W

Animal Species in Sub-watershed

South Yamhill River (170900080701)

*** See Appendix for Status and Rank Code Lookup*

1	Cooper's hawk	*Accipiter cooperii*	Relative Abundance Index: *0.8*		
	Global Rank: *G5*	Federal Status:		View in Wildlife Viewer	
	State Rank: *S4*	State Rank:		View Habitat Map (pdf)	
	FPA:	Strategy Species:			
2	Sharp-shinned hawk	*Accipiter striatus*	Relative Abundance Index: *0.69*		
	Global Rank: *G5*	Federal Status: *PS*		View in Wildlife Viewer	
	State Rank: *S4*	State Rank:		View Habitat Map (pdf)	
	FPA:	Strategy Species:			
3	Northern saw-whet owl	*Aegolius acadicus*	Relative Abundance Index: *0.61*		
	Global Rank: *G5*	Federal Status:		View in Wildlife Viewer	
	State Rank: *S4?*	State Rank:		View Habitat Map (pdf)	
	FPA:	Strategy Species:			
4	Clouded salamander	*Aneides ferreus*	Relative Abundance Index: *0.85*		
	Global Rank: *G3G4*	Federal Status:		View in Wildlife Viewer	
	State Rank: *S3S4*	State Rank: *S*		View Habitat Map (pdf)	
	FPA:	Strategy Species: *Y*			
5	Red tree vole	*Arborimus longicaudus*	Relative Abundance Index: *0.36*		
	Global Rank: *G2G3*	Federal Status: *PS:C*		View in Wildlife Viewer	
	State Rank: *S2S3*	State Rank: *S*		View Habitat Map (pdf)	
	FPA:	Strategy Species: *Y*			
6	Swainson's thrush	*Catharus ustulatus*	Relative Abundance Index: *0.52*		
	Global Rank: *G5*	Federal Status:		View in Wildlife Viewer	
	State Rank: *S4S5B*	State Rank:		View Habitat Map (pdf)	
	FPA:	Strategy Species:			
7	Brown creeper	*Certhia americana*	Relative Abundance Index: *0.82*		
	Global Rank: *G5*	Federal Status:		View in Wildlife Viewer	
	State Rank: *S4*	State Rank:		View Habitat Map (pdf)	
	FPA:	Strategy Species:			
8	Racer	*Coluber constrictor*	Relative Abundance Index: *0.98*		
	Global Rank: *G5*	Federal Status:		View in Wildlife Viewer	
	State Rank: *S4?*	State Rank:		View Habitat Map (pdf)	
	FPA:	Strategy Species:			
9	Western wood-pewee	*Contopus sordidulus*	Relative Abundance Index: *0.73*		
	Global Rank: *G5*	Federal Status:		View in Wildlife Viewer	
	State Rank: *S4*	State Rank:		View Habitat Map (pdf)	
	FPA:	Strategy Species:			
10	Ringneck snake	*Diadophis punctatus*	Relative Abundance Index: *1*		
	Global Rank: *G5*	Federal Status: *No status*		View in Wildlife Viewer	
	State Rank: *S4?*	State Rank:		View Habitat Map (pdf)	
	FPA:	Strategy Species:			

Biodiversity Report

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11	Pileated woodpecker	*Dryocopus pileatus*	Relative Abundance Index: *0.64*		
	Global Rank: *G5*	Federal Status:		View in Wildlife Viewer	
	State Rank: *S4*	State Rank: *S*		View Habitat Map (pdf)	
	FPA:	Strategy Species: *Y*			
12	Pacific slope flycatcher	*Empidonax difficilis*	Relative Abundance Index: *0.5*		
	Global Rank: *G5*	Federal Status:		View in Wildlife Viewer	
	State Rank: *S4B*	State Rank:		View Habitat Map (pdf)	
	FPA:	Strategy Species:			
13	Hammond's flycatcher	*Empidonax hammondii*	Relative Abundance Index: *0.4*		
	Global Rank: *G5*	Federal Status:		View in Wildlife Viewer	
	State Rank: *S4*	State Rank:		View Habitat Map (pdf)	
	FPA:	Strategy Species:			
14	Macgillivray's warbler	*Geothlypis tolmiei*	Relative Abundance Index: *0.52*		
	Global Rank: *G5*	Federal Status:		View in Wildlife Viewer	
	State Rank: *S4B*	State Rank:		View Habitat Map (pdf)	
	FPA:	Strategy Species:			
15	Northern pygmy-owl	*Glaucidium gnoma*	Relative Abundance Index: *0.52*		
	Global Rank: *G4G5*	Federal Status:		View in Wildlife Viewer	
	State Rank: *S4*	State Rank:		View Habitat Map (pdf)	
	FPA:	Strategy Species:			
16	Humboldt's flying squirrel	*Glaucomys oregonensis*	Relative Abundance Index: *0.66*		
	Global Rank: *G5*	Federal Status:		View in Wildlife Viewer	
	State Rank: *S4*	State Rank:		View Habitat Map (pdf)	
	FPA:	Strategy Species:			
17	Purple finch	*Haemorhous purpureus*	Relative Abundance Index: *0.72*		
	Global Rank: *G5*	Federal Status:		View in Wildlife Viewer	
	State Rank: *S4?*	State Rank:		View Habitat Map (pdf)	
	FPA:	Strategy Species:			
18	Bullock's oriole	*Icterus bullockii*	Relative Abundance Index: *1.15*		
	Global Rank: *G5*	Federal Status:		View in Wildlife Viewer	
	State Rank: *S4B*	State Rank:		View Habitat Map (pdf)	
	FPA:	Strategy Species:			
19	Varied thrush	*Ixoreus naevius*	Relative Abundance Index: *0.36*		
	Global Rank: *G5*	Federal Status:		View in Wildlife Viewer	
	State Rank: *S4*	State Rank:		View Habitat Map (pdf)	
	FPA:	Strategy Species:			
20	Snowshoe hare	*Lepus americanus*	Relative Abundance Index: *1.12*		
	Global Rank: *G5*	Federal Status:		View in Wildlife Viewer	
	State Rank: *S4*	State Rank:		View Habitat Map (pdf)	
	FPA:	Strategy Species:			
21	Red crossbill	*Loxia curvirostra*	Relative Abundance Index: *0.16*		
	Global Rank: *G5*	Federal Status:		View in Wildlife Viewer	
	State Rank: *S4*	State Rank:		View Habitat Map (pdf)	
	FPA:	Strategy Species:			

Biodiversity Report

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22	Bobcat	*Lynx rufus*	Relative Abundance Index: *0.69*		
	Global Rank: *G5*	Federal Status: *No status*			
	State Rank: *S4*	State Rank:			
	FPA:	Strategy Species:			
23	Western screech-owl	*Megascops kennicottii*	Relative Abundance Index: *0.81*		
	Global Rank: *G4G5*	Federal Status:			
	State Rank: *S4?*	State Rank:			
	FPA:	Strategy Species:			
24	Acorn woodpecker	*Melanerpes formicivorus*	Relative Abundance Index: *1.14*		
	Global Rank: *G5*	Federal Status:			
	State Rank: *S3*	State Rank: *S*			
	FPA:	Strategy Species: *Y*			
25	Western red-backed vole	*Myodes californicus*	Relative Abundance Index: *0.41*		
	Global Rank: *G5*	Federal Status:			
	State Rank: *S4*	State Rank:			
	FPA:	Strategy Species:			
26	Townsend's chipmunk	*Neotamias townsendii*	Relative Abundance Index: *0.65*		
	Global Rank: *G5*	Federal Status:			
	State Rank: *S4*	State Rank:			
	FPA:	Strategy Species:			
27	Shrew-mole	*Neurotrichus gibbsii*	Relative Abundance Index: *0.52*		
	Global Rank: *G5*	Federal Status:			
	State Rank: *S4*	State Rank:			
	FPA:	Strategy Species:			
28	Mountain quail	*Oreortyx pictus*	Relative Abundance Index: *0.51*		
	Global Rank: *G5*	Federal Status:			
	State Rank: *S3S4*	State Rank: *S*			
	FPA:	Strategy Species: *Y*			
29	Nashville warbler	*Oreothlypis ruficapilla*	Relative Abundance Index: *0.77*		
	Global Rank: *G5*	Federal Status:			
	State Rank: *S4?B*	State Rank:			
	FPA:	Strategy Species:			
30	Lazuli bunting	*Passerina amoena*	Relative Abundance Index: *0.99*		
	Global Rank: *G5*	Federal Status:			
	State Rank: *S4B*	State Rank:			
	FPA:	Strategy Species:			
31	Downy woodpecker	*Picoides pubescens*	Relative Abundance Index: *0.73*		
	Global Rank: *G5*	Federal Status:			
	State Rank: *S4*	State Rank:			
	FPA:	Strategy Species:			
32	Hairy woodpecker	*Picoides villosus*	Relative Abundance Index: *0.82*		
	Global Rank: *G5*	Federal Status:			
	State Rank: *S4*	State Rank:			
	FPA:	Strategy Species:			

View in Wildlife Viewer
View Habitat Map (pdf)

Biodiversity Report

45.1998°N, -123.1693°W

33	Golden-crowned kinglet	*Regulus satrapa*	Relative Abundance Index: *0.45*		
	Global Rank: *G5*	Federal Status:	*View in Wildlife Viewer*		
	State Rank: *S3*	State Rank:	*View Habitat Map (pdf)*		
	FPA:	Strategy Species:			
34	Townsend's mole	*Scapanus townsendii*	Relative Abundance Index: *1.01*		
	Global Rank: *G5*	Federal Status:	*View in Wildlife Viewer*		
	State Rank: *S4*	State Rank:	*View Habitat Map (pdf)*		
	FPA:	Strategy Species:			
35	Western gray squirrel	*Sciurus griseus*	Relative Abundance Index: *0.84*		
	Global Rank: *G5*	Federal Status:	*View in Wildlife Viewer*		
	State Rank: *S4*	State Rank: *S*	*View Habitat Map (pdf)*		
	FPA:	Strategy Species: *Y*			
36	Hermit warbler	*Setophaga occidentalis*	Relative Abundance Index: *0.22*		
	Global Rank: *G4G5*	Federal Status:	*View in Wildlife Viewer*		
	State Rank: *S4*	State Rank:	*View Habitat Map (pdf)*		
	FPA:	Strategy Species:			
37	Western bluebird	*Sialia mexicana*	Relative Abundance Index: *1*		
	Global Rank: *G5*	Federal Status:	*View in Wildlife Viewer*		
	State Rank: *S4B,S4N*	State Rank: *S*	*View Habitat Map (pdf)*		
	FPA:	Strategy Species: *Y*			
38	Pacific shrew	*Sorex pacificus*	Relative Abundance Index: *0.7*		
	Global Rank: *G5*	Federal Status:	*View in Wildlife Viewer*		
	State Rank: *S3S4*	State Rank:	*View Habitat Map (pdf)*		
	FPA:	Strategy Species:			
39	Trowbridge's shrew	*Sorex trowbridgii*	Relative Abundance Index: *0.59*		
	Global Rank: *G5*	Federal Status:	*View in Wildlife Viewer*		
	State Rank: *S4*	State Rank:	*View Habitat Map (pdf)*		
	FPA:	Strategy Species:			
40	Red-breasted sapsucker	*Sphyrapicus ruber*	Relative Abundance Index: *0.83*		
	Global Rank: *G5*	Federal Status:	*View in Wildlife Viewer*		
	State Rank: *S4*	State Rank:	*View Habitat Map (pdf)*		
	FPA:	Strategy Species:			
41	Western spotted skunk	*Spilogale gracilis*	Relative Abundance Index: *1.2*		
	Global Rank: *G5*	Federal Status:	*View in Wildlife Viewer*		
	State Rank: *S4*	State Rank:	*View Habitat Map (pdf)*		
	FPA:	Strategy Species:			
42	Chipping sparrow	*Spizella passerina*	Relative Abundance Index: *0.79*		
	Global Rank: *G5*	Federal Status:	*View in Wildlife Viewer*		
	State Rank: *S4B*	State Rank: *S*	*View Habitat Map (pdf)*		
	FPA:	Strategy Species: *Y*			
43	Common gray fox	*Urocyon cinereoargenteus*	Relative Abundance Index: *0.72*		
	Global Rank: *G5*	Federal Status:	*View in Wildlife Viewer*		
	State Rank: *S4*	State Rank:	*View Habitat Map (pdf)*		
	FPA:	Strategy Species:			

44 Cassin's vireo *Vireo cassinii* Relative Abundance Index: *0.5*

Global Rank: *G5* Federal Status:
State Rank: *S4?B* State Rank:
FPA: Strategy Species:

View in Wildlife Viewer
View Habitat Map (pdf)

45 Hutton's vireo *Vireo huttoni* Relative Abundance Index: *0.52*

Global Rank: *G5* Federal Status:
State Rank: *S4* State Rank:
FPA: Strategy Species:

View in Wildlife Viewer
View Habitat Map (pdf)

46 Red-eyed vireo *Vireo olivaceus* Relative Abundance Index: *0.83*

Global Rank: *G5* Federal Status:
State Rank: *S3S4B* State Rank:
FPA: Strategy Species:

View in Wildlife Viewer
View Habitat Map (pdf)

47 Pacific jumping mouse *Zapus trinotatus* Relative Abundance Index: *0.96*

Global Rank: *G5* Federal Status:
State Rank: *S4* State Rank:
FPA: Strategy Species:

View in Wildlife Viewer
View Habitat Map (pdf)

Biodiversity Report

45.1998°N, -123.1693°W

Ecological Systems in Sub-watershed
South Yamhill River (170900080701)

Willamette Valley Ecosection

	Ecological System	Relative Abundance Index
1	*Agriculture - Irrigated*	*2.046849*
2	*Developed, Low Intensity*	*1.750694*
3	*Westside Lowland Riparian*	*1.697019*
4	*Developed, Medium Intensity*	*1.678019*
5	*Developed, High Intensity*	*1.652591*
6	*High Structure Agriculture*	*1.474005*
7	*Oregon White Oak*	*1.394151*
8	*Freshwater Aquatic Bed*	*1.36268*
9	*Developed, Open Space (Roads, Parks, Golf Courses, Open Space)*	*1.240594*
10	*Westside Forested or Shrub Wetland*	*1.116343*
11	*Westside Valley Wet Prairie*	*1.046012*
12	*Westside Lowland Prairie and Savanna*	*0.951762*
13	*Agriculture - Hay/pasture*	*0.779651*
14	*Big Leaf Maple - Douglas-fir*	*0.28553*
15	*Recently Burned Forest*	*0.100545*
16	*Water*	*0.093808*
17	*Oregon Whilte Oak - Ponderosa Pine*	*0.053717*
18	*Dry-site Douglas-fir - Western Hemlock*	*0.053265*
19	*Harvested Forest - Tree Regeneration*	*0.03737*
20	*Westside Douglas-fir or Madrone*	*0.019593*
21	*Red Fir*	*0.014177*
22	*Red Alder or Bigleaf Maple*	*0.00413*

Biodiversity Report

45.1998°N, -123.1693°W

Appendix- Keys Codes and Source Information

Latitude: Degrees north of the equator measured in Degrees Minutes Seconds (DMS), Degrees and decimal minutes, and decimal degrees.

Longitude: Degrees west of Greenwich measured in Degrees Minutes Seconds (DMS), Degrees and decimal minutes, and decimal degrees.

Legal: The Public Land Survey System (PLS), Willamette Baseline and Meridian, quarter quarter section, township, and range.

Elevation: The approximate elevation, derived from the 10 meter Digital Elevation Models (DEM).

County: The county in Oregon.

Public Ownership: The generalized public ownership.

Fire Protection District: The Oregon Department of Forestry Fire Protection district.

USGS Quad Name and #: The USGS 7.5 minute quadrangle and "Ohio" code, composed of the 1 degree block, row & column numbers.

Watershed (10 Digit HUC): The Hydrologic Unit Code (HUC), formerly known as the 5th field HUC.

Sub-watershed (12 Digit HUC): The Hydrologic Unit (HUC), formerly known as the 6th field HUC.

Fire Weather Zone: The Oregon Department of Forestry fire weather zone.

Regulated Use: The Oregon Department of Forestry regulated use code.

Rainfall: The approximate rainfall range, derived from Oregon Climate Service PRISM.

Wildlife Management Unit: The Oregon Department of Fish and Wildlife (ODFW) Wildlife management unit.

Magnetic Declination 2009: The magnetic declination for 2009.

Maidenhead Locator Grid Square: An instrument of the *Maidenhead Locator System* (named after the town outside London where it was first conceived by a meeting of European VHF managers in 1980), a grid square measures 1° latitude by 2° longitude and measures approximately 70 × 100 miles in the continental US. A grid square is indicated by two letters (the *field*) and two numbers (the *square*). This is a service of ARRL - The National Association for Amateur Radio .

2014

Biodiversity Report

45.1998°N, -123.1693°W

Biodiversity data provided by the Oregon Biodiversity Information Center

FEDERAL STATUS

LE	Listed as an Endangered Species
LT	Listed as a Threatened Species
PE	Proposed as an Endangered Species
PT	Proposed as a Threatened Species
C	Candidate for Listing as Threatened or Endangered
SOC	Species of Concern - Taxa for which additional information is needed to support a proposal to list under the ESA

STATE STATUS - ANIMALS

LE	Listed as an Endangered Species
LT	Listed as a Threatened Species
PE	Proposed as an Endangered Species
PT	Proposed as a Threatened Species
SC	Sensitive - Critical
SV	Sensitive - Vulnerable

RANKS

G1	Critically imperiled throughout its range
G2	Imperiled throughout its range
G3	Rare, threatened or uncommon throughout its range
G4	Not rare, apparently secure throughout its range
G5	Widespread, abundant and secure throughout its range
S1	Critically imperiled in Oregon
S2	Imperiled in Oregon
S3	Rare, threatened or uncommon in Oregon
S4	Not rare, apparently secure in Oregon
S5	Widespread, abundant and secure in Oregon
T	Rank for a subspecies, variety, or race
Q	Taxonomic questions
H	Historic, formerly part of the native biota with the implied expectation that it may be rediscovered
X	Presumed extirpated or extinct
U	Unknown rank
NR	Not yet ranked
B	Rank of the breeding population (migratory birds)
N	Rank of the wintering population (migratory birds

MIGRATION STATUS

M	Summer resident
W	Winter resident
F	Spring/Fall resident
Y	Year-round resident
U	Unknown residency

SC	Seasonal resident and confirmed breeder
SP	Seasonal resident and probable breeder
S?	Seasonal resident and possible breeder
SH	Seasonal resident and current nonbreeder, historic breeder
SN	Seasonal resident and nonbreeder
YC	Year-round resident and confirmed breeder
YP	Year-round resident and probable breeder
Y?	Year-round resident and possible breeder
YH	Year-round resident and current non-breeder, historic breeder
YN	Year-round resident and nonbreeder
T	Transient

elcode – a NatureServe derived 10 digit code unique to every species found in North America.

sname – Scientific name of the species as recognized in Oregon.

scomname – The common name of the species or the ecological system, as recognized in Oregon.

relative_abundance – Relative abundance is an area weighted ratio, comparing the amount of the species or

ecological system within the subwatershed (12 digit HUC) to the amount of that species within all of the watershed in an Oregon Department of Forestry Ecosection. Values greater than 1 indicate the species is more prevalent at this site than at most other sites where it occurs.

> *Relative Abundance = ((Area of Species in a Subwatershed/Area of Species in Ecosection)/(Total area of the Subwatershed/Total area of all Subwatersheds in the ecosection with the species present))*

conservation_priority_index - "To describe the change in vertebrate distributions caused by anthropocentric changes in Oregon over the last century, we evaluate both the loss of habitat, and how well the current and historic range of the species is protected…. These [values] range from negative to positive, with the species most in need of attention having larger negative values, and those most secure having large positive values."

Dennis White Index: "Denis White of the Environmental Protection Agency lab in Corvallis recommended the … index which allows for weighting of how well areas are protected and how much habitats have been lost. Denis noted that additive indices often work better than multiplicative ones. Values for this index range from positive to negative 1."

> *Conservation Priority Index (Dennis White) = (1-((current habitat - currently protected habitat)/(current habitat))) + ((current habitat)/(current habitat + currently protected habitat))*

Source: Kagan, J.S., J.C. Hak, B. Csuti, C.W. Kiilsgaard, and E.P. Gaines. 1999. Oregon Gap Analysis Project Final Report: A geographic approach to planning for biological diversity. Oregon Natural Heritage Program, Portland, Oregon. 72 pp. + appendices.

g_rank – The global rank of a species, a value from 1 – 5, representing the risk of extinction for every species throughout their entire range on earth, with 1 = Critically imperiled, 2 = imperiled, 3 = threatened, 4 = probably secure and 5 = demonstrably secure.

s_rank – The state rank of the species, a value from 1 – 5, representing the risk of extirpation for every species throughout their entire range in Oregon, with 1 = Critically imperiled, 2 = imperiled, 3 = threatened, 4 = probably secure and 5 = demonstrably secure.

fed_status – the status of a species under the U.S. Endangered Species Act, if any. Values include LE = Listed Endangered, LT = Listed Threatened, C = Candidate, and SOC = Species of Concern. A PS: before a value means partial status, generally indicating status for portions of the distribution in the state.

state_status – the status of a species under the Oregon Endangered Species Act. Values include LE = Listed Endangered and LT = Listed Threatened for all species (plants and animals). In addition, for animals, ODFW includes a SV status indicating the species is on their sensitive species list as "vulnerable" or SC as "sensitive critical". For plants, ODA lists C = Candidate, species considered for potential listing.

strategy_species – any species identified in the Oregon Conservation Strategy as a strategy species.

odf_indicator – Is this a Department of Forestry forest health indicator species? Y = yes.

FPA- Species protected under the Oregon Forest Practices Act

watershed_cd – the 12 digit code for the sub-watershed (also known as the HUC code for hydrologic unit code).

occurrence_status_cd – represents the confidence that the species can be found in the watershed - Probable,

possible and confident

origin_status_cd – Is the species native or introduced in Oregon? N = Native, I = introduced.

migrant_status_cd – This is the migratory status, with M meaning the species is migratory and is a summer resident, breeding in Oregon, Y meaning it occurs year around, and W meaning the species only winters in Oregon. Less commonly, F = spring or fall residents only, and U means residency status is unknown.

update_year – is the year the species status has been updated in this watershed.

wildlife_viewer_url – a link to the wildlife viewer Oregon Explorer page for the species.

habitat_map_pdf – a link to the current Oregon habitat distribution map on the Oregon Explorer.

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Oregon Fish And Wildlife Office
2600 Southeast 98th Avenue, Suite 100
Portland, OR 97266-1398
Phone: (503) 231-6179 Fax: (503) 231-6195

In Reply Refer To:
Project Code: 2024-0005968
Project Name: Stratus Village

October 17, 2023

Subject: List of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*). This is not a consultation.

Based on contaminants of interest for this site and complete exposure pathways (attachment 2) for

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2)

(c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

https://www.fws.gov/sites/default/files/documents/endangered-species-consultation-handbook.pdf

Migratory Birds: In addition to responsibilities to protect threatened and endangered species under the Endangered Species Act (ESA), there are additional responsibilities under the Migratory Bird Treaty Act (MBTA) and the Bald and Golden Eagle Protection Act (BGEPA) to protect native birds from project-related impacts. Any activity, intentional or unintentional, resulting in take of migratory birds, including eagles, is prohibited unless otherwise permitted by the U.S. Fish and Wildlife Service (50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)). For more information regarding these Acts, see https://www.fws.gov/program/migratory-bird-permit/what-we-do.

The MBTA has no provision for allowing take of migratory birds that may be unintentionally killed or injured by otherwise lawful activities. It is the responsibility of the project proponent to comply with these Acts by identifying potential impacts to migratory birds and eagles within applicable NEPA documents (when there is a federal nexus) or a Bird/Eagle Conservation Plan (when there is no federal nexus). Proponents should implement conservation measures to avoid or minimize the production of project-related stressors or minimize the exposure of birds and their resources to the project-related stressors. For more information on avian stressors and recommended conservation measures, see https://www.fws.gov/library/collections/threats-birds.

In addition to MBTA and BGEPA, Executive Order 13186: *Responsibilities of Federal Agencies to Protect Migratory Birds*, obligates all Federal agencies that engage in or authorize activities that might affect migratory birds, to minimize those effects and encourage conservation measures that will improve bird populations. Executive Order 13186 provides for the protection of both migratory birds and migratory bird habitat. For information regarding the implementation of Executive Order 13186, please visit https://www.fws.gov/partner/council-conservation-migratory-birds.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Code in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

- Official Species List
- USFWS National Wildlife Refuges and Fish Hatcheries
- Bald & Golden Eagles
- Migratory Birds
- Wetlands

OFFICIAL SPECIES LIST

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

Oregon Fish And Wildlife Office
2600 Southeast 98th Avenue, Suite 100
Portland, OR 97266-1398
(503) 231-6179

PROJECT SUMMARY

Project Code: 2024-0005968
Project Name: Stratus Village
Project Type: Residential Construction
Project Description: Proposed (175) units within (4) three story residential buildings and (1) single-story common building to be constructed on 8.35 acres. Current Owner: Housing Authority of Yamhill County.
Project Location:

The approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/@45.19969585,-123.16902009999998,14z

Counties: Yamhill County, Oregon

ENDANGERED SPECIES ACT SPECIES

There is a total of 8 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries[1], as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

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1. NOAA Fisheries, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

BIRDS

NAME	STATUS
Marbled Murrelet *Brachyramphus marmoratus* Population: U.S.A. (CA, OR, WA) There is **final** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/4467	Threatened
Northern Spotted Owl *Strix occidentalis caurina* There is **final** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/1123	Threatened
Streaked Horned Lark *Eremophila alpestris strigata* There is **final** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/7268	Threatened

INSECTS

NAME	STATUS
Fender's Blue Butterfly *Icaricia icarioides fenderi* There is **final** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/6659	Threatened
Monarch Butterfly *Danaus plexippus* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9743	Candidate

FLOWERING PLANTS

NAME	STATUS
Kincaid's Lupine *Lupinus sulphureus ssp. kincaidii* There is **final** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/3747	Threatened
Nelson's Checker-mallow *Sidalcea nelsoniana* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/7340	Threatened
Willamette Daisy *Erigeron decumbens* There is **final** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/6270	Endangered

CRITICAL HABITATS

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

YOU ARE STILL REQUIRED TO DETERMINE IF YOUR PROJECT(S) MAY HAVE EFFECTS ON ALL ABOVE LISTED SPECIES.

USFWS NATIONAL WILDLIFE REFUGE LANDS AND FISH HATCHERIES

Any activity proposed on lands managed by the National Wildlife Refuge system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

THERE ARE NO REFUGE LANDS OR FISH HATCHERIES WITHIN YOUR PROJECT AREA.

BALD & GOLDEN EAGLES

Bald and golden eagles are protected under the Bald and Golden Eagle Protection Act[1] and the Migratory Bird Treaty Act[2].

Any person or organization who plans or conducts activities that may result in impacts to bald or golden eagles, or their habitats[3], should follow appropriate regulations and consider implementing appropriate conservation measures, as described below.

---

1. The Bald and Golden Eagle Protection Act of 1940.
2. The Migratory Birds Treaty Act of 1918.
3. 50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)

There are bald and/or golden eagles in your project area.

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON
Bald Eagle *Haliaeetus leucocephalus* This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1626	Breeds Jan 1 to Sep 30
Golden Eagle *Aquila chrysaetos* This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1680	Breeds Jan 1 to Aug 31

PROBABILITY OF PRESENCE SUMMARY

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read the supplemental information and specifically the FAQ "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Green bars; the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during that week of the year.

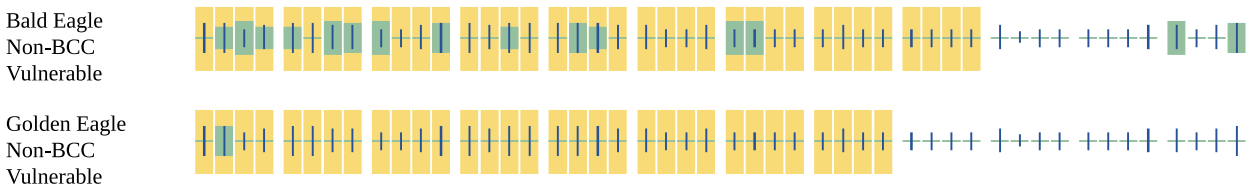
Breeding Season (■)
Yellow bars; liberal estimate of the timeframe inside which the bird breeds across its entire range.

Survey Effort (|)
Vertical black lines; the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps.

No Data (–)
A week is marked as having no data if there were no survey events for that week.

■ probability of presence ■ breeding season | survey effort – no data

SPECIES	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC



Additional information can be found using the following links:

- Eagle Managment https://www.fws.gov/program/eagle-management
- Measures for avoiding and minimizing impacts to birds https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds
- Nationwide conservation measures for birds https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf
- Supplemental Information for Migratory Birds and Eagles in IPaC https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action

MIGRATORY BIRDS

Certain birds are protected under the Migratory Bird Treaty Act[1] and the Bald and Golden Eagle Protection Act[2].

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats[3] should follow appropriate regulations and consider implementing appropriate conservation measures, as described below.

---

1. The Migratory Birds Treaty Act of 1918.
2. The Bald and Golden Eagle Protection Act of 1940.
3. 50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON
Bald Eagle *Haliaeetus leucocephalus* This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1626	Breeds Jan 1 to Sep 30

NAME	BREEDING SEASON
California Gull *Larus californicus* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/10955	Breeds Mar 1 to Jul 31
Evening Grosbeak *Coccothraustes vespertinus* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9465	Breeds May 15 to Aug 10
Golden Eagle *Aquila chrysaetos* This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1680	Breeds Jan 1 to Aug 31
Olive-sided Flycatcher *Contopus cooperi* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/3914	Breeds May 20 to Aug 31
Rufous Hummingbird *selasphorus rufus* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/8002	Breeds Apr 15 to Jul 15
Western Grebe *aechmophorus occidentalis* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/6743	Breeds Jun 1 to Aug 31
Wrentit *Chamaea fasciata* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/10668	Breeds Mar 15 to Aug 10

PROBABILITY OF PRESENCE SUMMARY

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read the supplemental information and specifically the FAQ "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

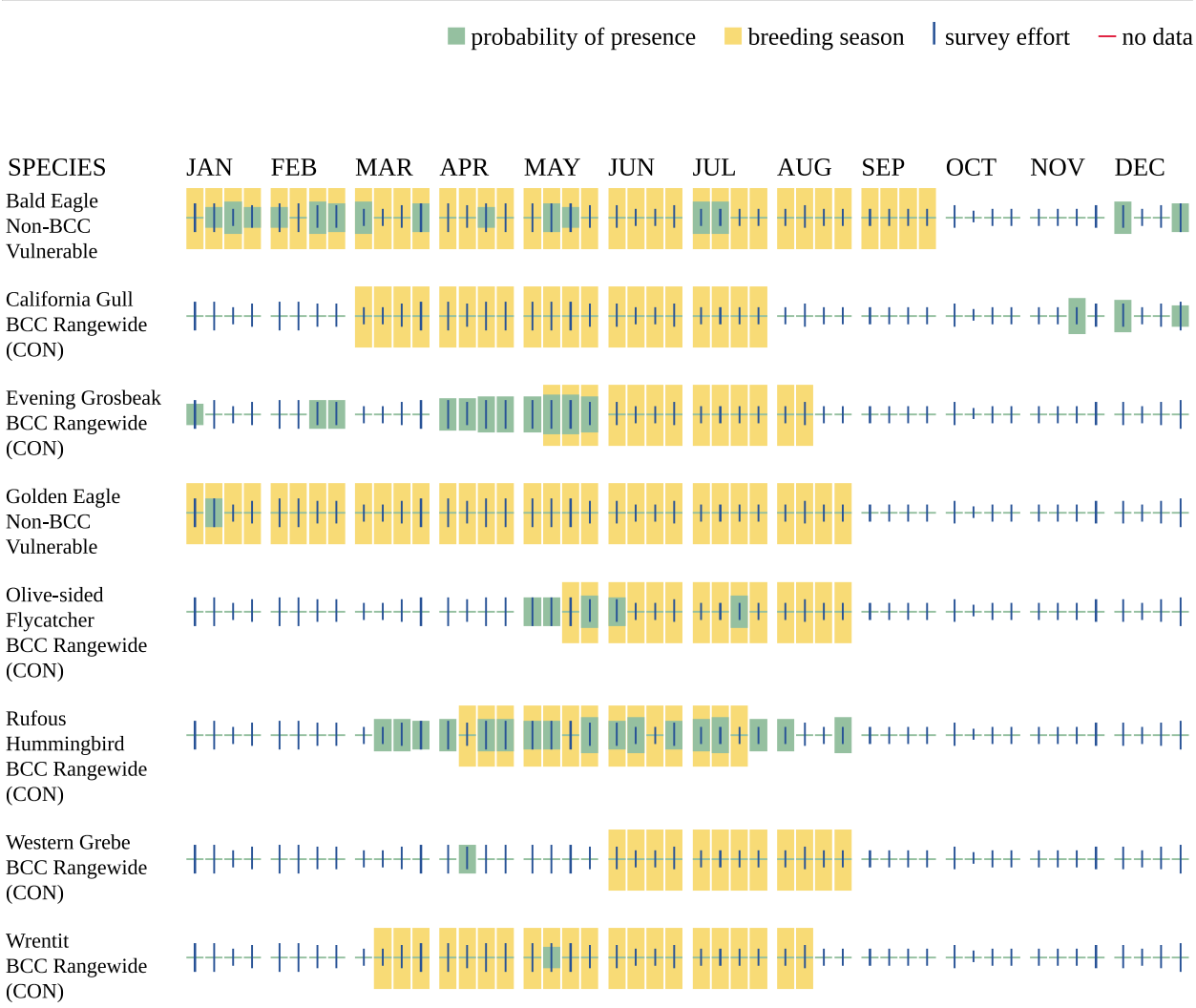
Green bars; the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during that week of the year.

Breeding Season (■)

Yellow bars; liberal estimate of the timeframe inside which the bird breeds across its entire range.

Survey Effort (|)
Vertical black lines; the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps.

No Data (–)
A week is marked as having no data if there were no survey events for that week.



Additional information can be found using the following links:

- Eagle Management https://www.fws.gov/program/eagle-management
- Measures for avoiding and minimizing impacts to birds https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds

- Nationwide conservation measures for birds https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf
- Supplemental Information for Migratory Birds and Eagles in IPaC https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action

WETLANDS

Impacts to NWI wetlands and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local U.S. Army Corps of Engineers District.

Please note that the NWI data being shown may be out of date. We are currently working to update our NWI data set. We recommend you verify these results with a site visit to determine the actual extent of wetlands on site.

THERE ARE NO WETLANDS WITHIN YOUR PROJECT AREA.

IPAC USER CONTACT INFORMATION

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REYNOLDS ENGINEERING, LLC

Table 1
Soil Analytical Results
Stratus Village
McMinnville, Oregon

	Crop Field							
Sample Locations:	C1 through C8				C9 through C16			
Composite Sample ID:	**CFcomp1 0-0.5**	**CFcomp1 0.5-1**	**CFcomp1 1-1.3**	**CFcomp1 1.3-1.7**	**CFcomp2 0-0.5**	**CFcomp2 0.5-1**	**CFcomp2 1-1.3**	**CFcomp2 1.3-1.7**
Sample Depth (feet bgs):	0-0.5	0.5-1	1-1.3	1.3-1.7	0-0.5	0.5-1	1-1.3	1.3-1.7
Collection Date:	12/14/2023	12/14/2023	2/21/2024	2/21/2024	12/14/2023	12/14/2023	2/21/2024	2/21/2024
Metals in mg/kg								
Antimony	0.523 U	0.492 U	0.553 U	0.525 U	0.500 U	0.505 U	0.523 U	0.502 U
Arsenic	**5.65**	**5.20**	**4.93**	**5.37**	**5.36**	**5.60**	**6.76**	**6.80**
Barium	**146**	**148**	**141**	**138**	**142**	**146**	**158**	**158**
Beryllium	**0.684**	**0.774**	**0.742**	**0.691**	**0.717**	**0.758**	**0.860**	**0.830**
Cadmium	**0.181** J	**0.153** J	**0.137** J	**0.141** J	**0.238**	**0.140** J	**0.120** J	**0.108** J
Chromium	**21.6**	**20.7**	**19.9**	**19.9**	**20.7**	**21.7**	**23.5**	**24.2**
Cobalt	**16.3**	**16.5**	**15.8**	**18.5**	**16.1**	**16.5**	**18.2**	**18.8**
Copper	**20.9**	**13.5**	**11.8**	**10.8**	**13.1**	**13.7**	**15.4**	**15.6**
Lead	**11.3**	**11.0**	**10.3**	**10.2**	**11.3**	**11.3**	**11.5**	**11.6**
Mercury	0.0418 U	0.0394 U	0.0442 U	0.0420 U	0.0400 U	0.0404 U	0.0418 U	0.0402 U
Molybdenum	0.523 U	0.492 U	0.553 U	0.525 U	0.500 U	0.505 U	0.523 U	0.502 U
Nickel	**11.9**	**11.1**	**8.94**	**8.94**	**11.1**	**11.8**	**12.1**	**12.3**
Selenium	**0.546** J	0.492 U	0.553 U	0.525 U	0.500 U	**0.540** J	0.523 U	0.502 U
Silver	0.105 U	0.0984 U	0.111 U	0.105 U	0.100 U	0.101 U	0.105 U	0.100 U
Thallium	**0.197** J	**0.196** J	**0.146** J	**0.155** J	**0.158** J	**0.159** J	**0.177** J	**0.180** J
Vanadium	**88.7**	**86.2**	**85.0**	**88.9**	**88.1**	**91.2**	**107**	**109**
Zinc	**58.6**	**50.2**	**38.6**	**36.8**	**57.5**	**53.9**	**55.0**	**54.6**
Multi-Residue Pesticides (0 to 1 ft bgs) & Organochlorine Pesticides Only (1 to 1.7 ft bgs) in mg/kg								
4,4'-DDE	**0.015**	**0.011**	**0.00381**	**0.00315**	**0.012**	**0.012**	0.00182 U	0.00184 U
Carbendazim	0.0067 U	0.0067 U	--	--	0.0067 U	0.0067 U	--	--
DCPMU	**0.018**	**0.022**	--	--	**0.038**	**0.013**	--	--
Dieldrin	0.0067 U	0.0067 U	0.00187 U	0.00182 U	0.0067 U	0.0067 U	0.00182 U	0.00184 U
Diuron	0.0067 U	0.0067 U	--	--	**0.011**	0.0067 U	--	--
All Other Pesticides	< MDL	< MDL	< MDL	< MDL	< MDL	< MDL	< MDL	< MDL
Total Petroleum Hydrocarbons (TPH) in mg/kg								
Gasoline-Range Organics	--	--	--	--	--	--	--	--
Diesel-Range Organics	--	--	--	--	--	--	--	--
Oil-Range Organics	--	--	--	--	--	--	--	--

Notes:

Clean Fill Criteria from the Oregon Department of Environmental Quality (DEQ) Clean Fill Determinations (updated February 21, 2019).

Soil Maximum Concentrations for TCLP from 40 CFR 261.24, multiplied by 20 to account for dilution performed during TCLP extraction.

Oregon DEQ RBCs from the Oregon Department of Environmental Quality (DEQ) Risk-Based Concentrations (RBCs) for Individual Chemicals (updated August 2023).

Ecological Soil RBSs from DEQ Conducting Ecological Risk Assessments Table 1a (updated Spetember 2020).

Bold values indicate the analyte was detected above method detection limits.

Shaded values indicate the analyte was detected above one or more applicable screening levels.

bgs = below ground surface

mg/kg = milligrams per kilogram

-- = not analyzed/applicable

B-02 = Analyte was detected in an assoicated method blank

J = Estimated result

MDL = Respective method detection limits

U = Analyte was not detected above the reported method detection limit

REYNOLDS ENGINEERING, LLC

Table 1
Soil Analytical Results
Stratus Village
McMinnville, Oregon

	Crop Field				Grass Field				Mound
Sample Locations:	C17 through C24				G1 through G6				M1 through M3
Composite Sample ID:	**CFcomp3 0-0.5**	**CFcomp3 0.5-1**	**CFcomp3 1-1.3**	**CFcomp3 1.3-1.7**	**GFcomp1 0-0.5**	**GFcomp1 0.5-1**	**GFcomp1 1-1.3**	**GFcomp1 1.3-1.7**	**Mcomp1**
Sample Depth (feet bgs):	0-0.5	0.5-1	1-1.3	1.3-1.7	0-0.5	0.5-1	1-1.3	1.3-1.7	0-3.5
Collection Date:	12/14/2023	12/14/2023	2/22/2024	2/22/2024	12/14/2023	12/14/2023	2/22/2024	2/22/2024	12/14/2023
Metals in mg/kg									
Antimony	0.497 U	0.509 U	0.514 U	0.517 U	0.517 U	0.532 U	0.489 U	0.490 U	0.513 U
Arsenic	**6.08**	**5.67**	**6.05**	**6.46**	**4.43**	**5.01**	**5.98**	**6.25**	**5.11**
Barium	**145**	**151**	**160**	**157**	**141**	**150**	**167**	**171**	**138**
Beryllium	**0.743**	**0.773**	**0.907**	**0.869**	**0.753**	**0.767**	**0.929**	**0.937**	**0.786**
Cadmium	**0.189** J	**0.126** J	0.103 U	0.103 U	**0.107** J	0.106 U	**0.148** J	0.0980 U	**0.163** J
Chromium	**22.3**	**21.8**	**21.7**	**21.4**	**17.7**	**19.0**	**21.5**	**21.7**	**19.2** B-02
Cobalt	**17.1**	**17.4**	**19.1**	**18.6**	**18.0**	**17.7**	**18.7**	**19.7**	**17.6**
Copper	**14.9**	**14.0**	**14.8**	**15.3**	**13.1**	**15.0**	**16.3**	**17.1**	**18.5**
Lead	**12.0**	**11.8**	**11.2**	**11.5**	**10.3**	**10.8**	**12.3**	**12.5**	**10.7**
Mercury	0.0398 U	0.0407 U	0.0411 U	0.0414 U	0.0413 U	0.0425 U	0.0391 U	0.0392 U	0.0410 U
Molybdenum	0.497 U	0.509 U	0.514 U	0.517 U	0.517 U	0.532 U	0.489 U	0.490 U	0.513 U
Nickel	**12.4**	**11.9**	**11.5**	**11.1**	**9.84**	**12.3**	**11.8**	**12.2**	**13.8**
Selenium	**0.526** J	0.509 U	0.514 U	0.517 U	0.517 U	0.532 U	**0.527** J	**0.558** J	0.513 U
Silver	0.0994 U	0.102 U	0.103 U	0.103 U	0.103 U	0.106 U	0.0977 U	0.0980 U	0.103 U
Thallium	**0.168** J	**0.161** J	**0.184** J	**0.181** J	**0.144** J	**0.163** J	**0.188** J	**0.195** J	**0.174** J
Vanadium	**93.6**	**93.6**	**103**	**107**	**88.2**	**90.1**	**99.5**	**100**	**88.8**
Zinc	**63.1**	**56.6**	**49.5**	**48.8**	**48.7**	**52.6**	**55.8**	**55.7**	**55.5**
Multi-Residue Pesticides (0 to 1 ft bgs) & Organochlorine Pesticides Only (1 to 1.7 ft bgs) in mg/kg									
4,4'-DDE	**0.017**	**0.018**	0.00177 U	**0.00106**	**0.0090**	**0.014**	**0.00848**	**0.00363**	--
Carbendazim	0.0067 U	0.0067 U	--	--	**0.0074**	0.0067 U	--	--	--
DCPMU	**0.065**	**0.028**	--	--	**0.042**	**0.017**	--	--	--
Dieldrin	0.0067 U	0.0067 U	0.00177 U	0.000910 U	0.0067 U	0.0067 U	0.00168 U	0.00169 U	--
Diuron	**0.020**	0.0067 U	--	--	**0.014**	0.0067 U	--	--	--
All Other Pesticides	< MDL	< MDL	< MDL	< MDL	< MDL	< MDL	< MDL	< MDL	--
Total Petroleum Hydrocarbons (TPH) in mg/kg									
Gasoline-Range Organics	--	--	--	--	--	--	--	--	4.69 U
Diesel-Range Organics	--	--	--	--	--	--	--	--	18.1 U
Oil-Range Organics	--	--	--	--	--	--	--	--	**209**

Notes:

Clean Fill Criteria from the Oregon Department of Environmental Quality (DEQ) Clean Fill Determinations (updated February 21, 2019).

Soil Maximum Concentrations for TCLP from 40 CFR 261.24, multiplied by 20 to account for dilution performed during TCLP extraction.

Oregon DEQ RBCs from the Oregon Department of Environmental Quality (DEQ) Risk-Based Concentrations (RBCs) for Individual Chemicals (updated August 2023).

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REYNOLDS ENGINEERING, LLC

Table 1
Soil Analytical Results
Stratus Village
McMinnville, Oregon

Sample Locations:	Oregon DEQ Clean Fill Criteria (South Willamette Valley)	Maximum Concentration for TCLP	Oregon DEQ RBCs					Oregon DEQ Ecological RBCs - Soil					
Composite Sample ID:			Soil Ingestion, Dermal Contact, and Inhalation					Plants	Invertebrtes	Ground Feeding		Top Consumers	
Sample Depth (feet bgs):			Residential	Urban Residential	Occupational	Construction Worker	Excavation Worker			Birds (non-T&E)	Mammals (non-T&E)	Birds (non-T&E)	Mammals (non-T&E)
Collection Date:													
Metals in mg/kg													
Antimony	0.39	--	--	--	--	--	--	11	78	--	2.7	--	49
Arsenic	18	100	0.43	1.0	1.9	15	420	18	6.8	32	31	1,000	290
Barium	730	2,000	15,000	31,000	220,000	69,000	--	110	330	1,200	8,700	13,000	44,000
Beryllium	2.6	--	160	310	2,300	700	19,000	2.5	40	--	42	--	110
Cadmium	1.6	20	78	160	1,100	350	9,700	32	140	1.6	4.0	7.7	1,700
Chromium	100	100	120,000	230,000	--	530,000	--	--	--	73	1,600	560	10,000
Cobalt	43	--	--	--	--	--	--	13	--	170	640	1,400	3,300
Copper	140	--	3,100	6,200	47,000	14,000	390,000	70	80	43	70	240	1,600
Lead	28	100	400	400	800	800	800	120	1,700	23	170	160	1,600
Mercury	0.07	4	23	47	350	110	2,900	34	0.05	0.13	17	0.58	130
Molybdenum	2.1	--	--	--	--	--	--	--	--	160	26	900	460
Nickel	50	--	1,500	3,100	22,000	7,000	190,000	38	280	81	21	440	580
Selenium	0.68	20	--	--		--	--	0.52	4.1	1.4	1.0	7.5	33
Silver	2.6	100	390	780	5,800	1,800	49,000	560	--	26	140	130	10,000
Thallium	5.7	--	--	--	--	--	--	0.05	--	45	4.2	480	50
Vanadium	370	--	--	--	--	--	--	60	--	9.5	610	110	1,600
Zinc	200	--	--	--	--	--	--	160	120	120	980	590	30,000
Multi-Residue Pesticides (0 to 1 ft bgs) & Organochlorine Pesticides Only (1 to 1.7 ft bgs) in mg/kg													
4,4'-DDE	0.01	--	1.8	4.5	8.2	66	1,800	4.1	--	0.41	0.24	1.2	0.099
Carbendazim	--	--	--	--	--	--	--	--	--	--	--	--	--
DCPMU	--	--	--	--	--	--	--	--	--	--	--	--	--
Dieldrin	0.0045	--	0.034	0.085	0.14	1.2	33	10	--	0.64	0.009	3.0	0.013
Diuron	0.9	--	--	--	--	--	--	--	--	--	--	--	--
All Other Pesticides	--	--	--	--	--	--	--	--	--	--	--	--	--
Total Petroleum Hydrocarbons (TPH) in mg/kg													
Gasoline-Range Organics	31	--	1,200	2,500	20,000	9,700	--	120	120	5,000	5,000	5,000	5,000
Diesel-Range Organics	1,100	--	1,100	2,200	14,000	4,600	--	260	260	6,000	6,000	6,000	6,000
Oil-Range Organics	1,100	--	1,100	2,200	14,000	4,600	--						

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