OPERATION & MAINTENANCE MANUAL

Choose an item.

**Manual prepared: Month YYYY**

**DFI No. Dxxxxx**



Figure : DFI No. Dxxxxx, looking [cardinal direction]

# **Identification**

|  |  |
| --- | --- |
| Drainage Facility ID (DFI): | Dxxxxx |
| Facility Type: | Choose an item. |
| Construction Drawings: | (V-File Numbers) XXV-XX |
| Location: | District: XXHighway No.: XXXMile Post: XXX to XXX, [side] |

# **Manual Purpose**

The purpose of this manual is to outline inspection needs and summarize maintenance actions.

# **Facility Location**

The location map below details the facility location. The highway, mile posts, side streets, access location, and stormwater flow directions are noted on the map.

Facility location type: Choose an item.

Flow direction: [note cardinal direction]



Figure : [ODOT Geo-Environmental to insert facility location map]

# **Facility Summary**

(Complete this section for detention tanks and manifold detention systems only. Delete this section if facility is a vault)

The length, width, and depth of the detention tank is based on the dimensions referenced in Figure #Figure 4. The depth is the vertical distance measured from the bottom of the detention facility to the rim of the access opening.

The dimensions of the detention facility are:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Facility Type** | **Length (feet)** | **Depth (feet)** | **Number of tanks/pipes** | **Tank/Pipe Diameter (inches)** |
| Choose an item. | **XXX** | **XXX** | **XXX** | **XXX** |



Figure : Reference dimensions for a detention tank



Figure : Reference dimensions for a manifold detention system

(Complete this section for detention vaults only. Delete this section if facility is a detention tank or manifold system)

The length, width, and depth of the detention vault are based on the dimensions referenced in Figure #. The depth is the vertical distance measured from the bottom of the detention vault to the rim of the access opening.

The dimensions of the detention vault are:

|  |  |  |
| --- | --- | --- |
| **Length (feet)** | **Width (feet)** | **Depth (feet)** |
| **XXX** | **XXX** | **XXX** |



Figure : Reference dimensions for a detention vault

**Site Specific Information:** Add site specific information that is not standard to the Operation Manual. This can include a description of the Haz Mat and/or ventilation components for the facility.

# **Facility Access**

Maintenance access to the facility:

|  |  |
| --- | --- |
| [ ] Roadside pad  | [ ] Roadside shoulder |
| [ ] Access road with Gate | [ ] Access road without Gate |
| [ ] Confined Space Entry | [ ] Lane Closure needed |



Figure : [insert post construction facility access photo and caption text]

# **Operational Components / Maintenance Items**

**Classification and Standard Operational (Op) Plan:**

This facility is classified as a:

|  |  |  |
| --- | --- | --- |
| [ ]  **Operational Plan A**Detention Tank | [ ]  **Operational Plan B**Detention Vault | [ ]  **Operational Plan C**Manifold Detention System |
| **A standard operational plan illustrates the general facility footprint configuration and explains the purpose of each facility component. Operational plans (A, B, C) are provided in the Standard Operation Manual.** |

See Appendix A for the site specific operational plan.

**Key Features/Items:**

[ ]  This facility has a bypass component (T2). T2 is a(n):

|  |  |  |
| --- | --- | --- |
| [ ]  **Weir type flow splitter** | [ ]  **Orifice type flow splitter** | [ ]  **Other:****Describe type** |

[ ]  This facility has a Pre-treatment Manhole (T1). T1 is a(n):

|  |
| --- |
| [ ]  **ODOT Pollution control manhole** |
| [ ]  **CDS (Continuous Deflective Separator)** |
| [ ]  **Downstream Defender** |
| [ ]  **Stormceptor** |
| [ ]  **Bayfilter** |

Include manufacturer’s Operaion and Maintenance manual as part of this document. Attach as Appendix C.

**Operational Components**

The facility components table (**Table 1**) highlights the applicable components for this facility. The component is in use when the box contains an “x” (e.g. [x]  ).

The Standard Operation Manual for detention tanks/vaults, implemented October 2018, outlines facility operation, typical footprint configuration, and component definitions and details. A link to the manual is attached to the feature marker in TransGIS.

<https://gis.odot.state.or.us/TransGIS/>

**Maintenance Items**

Operational components marked in **Table 1** should be inspected and maintained according to Section 7. Each facility component is defined and detailed in the Standard Operation Manual using the associated ID number indicated below.

|  |  |
| --- | --- |
| **Table 1: Detention Tank/Vault Components** | **ID #** |
| **Manholes** |  |
| Pre-Treatment Manhole |[ ]   |
| Flow Splitter Manhole |[ ]   |
| Flow Control Manhole |[ ]   |
| Standard Manhole |[ ]   |
| Sump |[ ]   |
| **Facility Inlet** |  |
| Inlet Pipe (list diameter – material type) |[ ]   |
| **Facility Structures** |  |
| Main Tank/Vault |[ ]   |
| Additional Back-Up Tank |[ ]   |
| Manifold Pipe (list diameter – material type) |[ ]   |
| Connecting Pipe (list diameter – material type) |[ ]   |
| Access Opening |[ ]   |
| **Facility Outlet** |  |
| Outlet Flow Control |[ ]   |
| Drainage Mechanism |[ ]   |
| Outlet Pipe (list diameter – material type) |[ ]   |
| **Outfall Type** |  |
| Outfall (Waterbody, **C**reek/**L**ake/**O**cean) | [ ] **C**[ ] **L**[ ] **O** |  |
| Ditch  |[ ]   |
| Storm Drain System |[ ]   |
| **Outfall Components** |  |
| Riprap Bank Protection  |[ ]   |

# **Maintenance**

**Maintenance Frequency/Maintain Records**

1. Inspect annually, preferably prior to the rainy season.
2. Clean and maintain as necessary. Refer to Activity 125 in the Maintenance Guide for conditions when maintenance is needed.
3. Keep a record of inspections, maintenance, and repairs.

**Maintenance Guide/Maintenance Actions**

The ODOT Maintenance Guide lists the standard maintenance actions for water quality facilities under Activity 125.

Standard maintenance tables describe the maintenance component, the potential defect or problem, the condition when maintenance is needed, and the recommended maintenance to correct the problem. Use the following tables to maintain ODOT detention tanks or vaults:

* Table 1 (General Maintenance): Contains general maintenance and inspection guidelines that are applicable to all ODOT water quality and detention facilities
* Table 6 (Detention Vaults): Contains maintenance information for detention vaults
* Table 7 (Detention Tanks): Contains maintenance information for detention tanks and large diameter pipe

**For this facility,**

|  |  |
| --- | --- |
| [ ]  **Jet Rodding is allowed** | [ ]  **Jet rodding in NOT allowed** |

The *Maintenance Guide* can be viewed here:

<http://transnet.odot.state.or.us/hwy/MaintOPs/Pages/Maintenance%20Guide.aspx>

# **Limitations**

Care should be taken when vehicles enter the facility to prevent the creation of depressions (tire ruts) and limit damage to vegetation and structural components. Maintenance vehicles should remain upon provided access areas.

# **Waste Disposal**

Material removed from the facility is defined as waste by the Department of Environmental Quality (DEQ). Refer to the road waste section of the ODOT Maintenance Yard Environmental Management System (EMS) Policy and Procedures Manual for disposal options:

[http://www.oregon.gov/ODOT/Maintenance/Documents/ems\_manual.pdf](http://www.oregon.gov/ODOT/HWY/OOM/pages/ems.aspx)

Contact any of the following for more detailed information about management of waste materials found on site:

ODOT Materials Management Coordinator (503) 731-8493

ODOT Statewide Hazmat Coordinator (503) 667-7442

ODOT Region 1 Hazmat Coordinator (503) 731-8290

ODOT Region 2 Hazmat Coordinator (503) 986-2647

ODOT Region 3 Hazmat Coordinator (541) 957-3594

ODOT Region 4 Hazmat Coordinator (541) 388-6186

ODOT Region 5 Hazmat Coordinator (541) 963-1590

ODEQ Northwest Region Office (503) 229-5263

###### Appendix A – Site Specific Operational Plan

**Contents:**

**Operational Plan: DFI Dxxxxx**





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###### Appendix B – Project Contract Plans

**Contents:**

**Site Specific Subset of Project Contract Plan XXV-XX**

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###### Appendix C – Proprietary Manufacturer’s O&M Manual

**Contents:**

**Manufacturer’s Operation & Maintenance Manual**

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