

*(Use this Section when the Contractor is to provide temporary water management facilities.)*

## SECTION 00245 - TEMPORARY WATER MANAGEMENT

*(Follow all instructions and make all edits with "Track Changes" turned on. This Section is not published in the Oregon Standard. If there are no instructions [purple text] above a subsection, paragraph, sentence, or bullet, then include it in the project, unless the item(s) that are included in the subsection, paragraph, sentence, or bullet are not required on the Project and then they should be deleted. In general do not re-number or re-letter subsections when item(s) are deleted. Delete all purple text before preparing the final document. All other modifications to this Section will require ODOT Technical Resource and State Specifications Engineer approval.)*

Section 00245 is not a Standard Specification and is included in this Project by Special Provision.

### Description

**00245.00 Scope** - This Work consists of providing, installing, operating, maintaining, and removing temporary water management facilities in regulated Work areas.

#### 00245.01 Abbreviations:

**TWM** - Temporary Water Management  
**TWMF** - Temporary Water Management Facility  
**TWMP** - Temporary Water Management Plan

#### 00245.02 Definitions:

**Temporary Water Management Facility** - A TWMP that conveys water around or through Work areas, removes water from Work areas, and treats and discharges water at locations outside Work areas.

**00245.03 Temporary Water Management Plan** - The Agency TWMP is a concept plan. 28 Calendar Days before beginning Work in regulated Work areas, submit stamped Working Drawings of a Contractor-developed TWMP, according to 00150.35, based on either the Agency's concept plan or an independent plan that meets water quality and environmental guideline requirements and does not negatively affect neighboring properties or water rights.

Include the following minimum information in the TWMP:

- The sequence and schedule for dewatering and re-watering, including when to contact the Engineer prior to dewatering and re-watering.

- How the Work area is isolated from the active stream flow upstream, through, and downstream.
- How the stream flow is routed and conveyed around or through the isolated Work area.
- How fish passage is provided around the Work area, if required.
- How the isolated Work area is de-watered.
- How the pumped water is treated, if necessary, before it is discharged downstream.
- Description of all construction stages, including appropriate contact points for each stage.
- A list of on-site backup Materials and Equipment.
- Provide the name of the TWM Subcontractor (if applicable) and Contractor's superintendent, and their 24-hour contact phone number 10 Days before the pre-Work meeting. If changes in the appointment of the TWM Subcontractor or Contractor's superintendent occur during the term of the Contract, provide written notice to the Engineer within 5 Calendar Days of the change.
- Calculations of water withdraw pump's capacity.
- Details of the proposed water intake screen used to isolate in-water Work area and how it meets the requirements of 00290.34(c)(3).

Any change to the TWMP during construction requires approval prior to implementation.

Obtain the Engineer's written approval before beginning Work in in-water Work areas.

**00245.04 Pre-Work Meeting** - Before beginning any TWM Work, attend a pre-work meeting at the Project Site with the Engineer no more than 8 Calendar Days prior to implementation of TWM. Required meeting attendees include:

- Engineer
- Contractor
- TWM Subcontractor (if applicable)
- Agency Environmental Coordinator or their appointed representative

The pre-Work meeting agenda typically includes the method of TWM, the TWMP, fish salvage plan and strategy, describe environmental risks, turbidity monitoring, energy dissipation, dewatering and re-watering plan and strategy, site clean-up expectations, and the circumstances when contacting the Engineer is required.

### **Materials**

*(Delete Material items that do not apply and include other Materials as necessary.)*

**00245.10 Materials** - Furnish Materials meeting the following requirements:

Concrete Barrier .....	00820.11
Pipe .....	00445.11
Plastic Sheeting.....	00280.14(a)

Riprap .....	00390.11
Rock Gabion Baskets .....	02340
Sandbags .....	00280.15(a)
Water Intake Screening .....	00290.34(c)

Provide pumps that are:

- Self-priming.
- Equipped with a variable speed governor.
- Equipped with a power source.
- Able to pump water that contains soft and hard solid.

### Construction

**00245.40 Fish Removal** - Qualified Agency, ODFW, or ODOT consultant biologists will remove fish and other aquatic organisms from the isolation Work areas. Coordinate fish removal with the Engineer at least 28 Calendar Days before beginning Work in regulated Work areas. Allow access into the isolation Work areas before, during and after installation of the TWMF to perform the specified tasks as follows:

- **Before Installation of TWMF** - Before any in-water Work, including installing TWMF, qualified personnel will remove fish and other native aquatic organisms from within the proposed isolated Work area.
- **After Installation of TWMF** - After installing TWMF and the reduction of the water level through the isolated Work area has begun, qualified personnel will remove all fish and aquatic organisms as the water level is reduced. Do not completely de-water the isolation area until all fish and aquatic organisms have been removed.

**00245.41 Installation** - During installation of the temporary water management facility, maintain a downstream water flow rate of at least 50 percent of the upstream water flow rate.

**00245.42 Operation** - Operate temporary water management as follows:

- Protect fish and fish habitat according to 00290.34.
- Maintain and control water flow downstream of the isolated Work area for the duration of the diversion to prevent downstream de-watering.
- Clean, maintain and repair water intake screening to ensure adequate flows and protection of aquatic organisms.
- In the event of containment failure immediately notify the Engineer so arrangements can be made to remove fish and aquatic organisms from the isolation Work areas prior to the continuation of Work within the ordinary high water limits.

*(Use the following bullet when a bypass pump is required.)*

- When using a pump for bypassing water during temporary water management, physically monitor the pump in-person and maintain the pump at all times including

non-work hours. Provide a back-up pump on-site and ready for use as necessary. Provide the Engineer with a daily report documenting monitoring activities.

### **Maintenance**

**00245.60 Maintenance** - Monitor water turbidity according to 00290.30(a)(8).

### **Finishing and Cleaning Up**

**00245.70 Removal** - Prior to removal of the TWMF, obtain approval from the Engineer after completion of all Work within ordinary high water limits. Remove the TWMF and re-water and restore the stream flow. Maintain downstream water flow during removal of the facility. Staged or metered re-watering may be required as determined by the Engineer.

### **Measurement**

**00245.80 Measurement** - No measurement of quantities will be made for temporary water management facilities.

The estimated quantities of Materials required for the temporary water management facility are:

*(Identify temporary water management facilities by station and list Materials for each facility. Delete Material items that do not apply and include other Materials as necessary. List each facility separately. Copy and paste for multiple facilities.)*

Temporary Water Management Facility at Station \_\_\_\_\_ :

Concrete Barrier .....	_____ Feet
Pipe .....	_____ Feet
Plastic Sheetting.....	_____ Square Yard
Riprap .....	_____ Cubic Yard
Rock Gabion Baskets .....	_____ Square Foot
Sandbags .....	_____ Each

*(Use the following sentence when a bypass pump is required.)*

The quantities of bypass pump monitoring will be measured on the time basis, of the actual number of Days the bypass pump is in operation and a daily monitoring report is received.

Turbidity monitoring will be measured according to 00290.80.

### **Payment**

**00245.90 Payment** - The accepted quantities of temporary water management facilities will be paid for at the Contract lump sum amount for the item "Temporary Water Management Facility at Station \_\_\_\_\_".

The location of the facility is inserted in the blank.

*(Use the following sentence when a bypass pump is required.)*

The accepted quantities of bypass pump monitoring will be paid for at the Contract unit price, per Day, for the item "Bypass Pump Monitoring".

Payment will be payment in full for furnishing and placing all Materials, and for providing all Equipment, labor, and Incidentals necessary to complete the Work as specified.

Turbidity monitoring will be paid for according to 00290.90.

No separate or additional payment will be made for TWMP, maintaining, operating, monitoring, moving, or removing the facility.