

# DEWATERING ACTIVITIES

## BMP FACTSHEET 16 Rev. 04/2019



Targeted Pollutants	
Sediment	X
Nutrients	X
Trash	
Metals	X
Bacteria	
Oil & Grease	
Chemicals	
Salt	X

### DESCRIPTION

Dewatering activities consist of removing or draining groundwater or surface water from construction site or ponding water that contains waste from industrial activities (i.e. petroleum products, chemicals, sediment, etc.) by pumping. Dewatering requires various Best Management Practices (BMP) before discharging into storm drains or onto non-erodible surfaces. It is important to ensure that illicit discharge does not occur. While illicit discharges are strictly prohibited, there are some circumstances in which non-stormwater discharges are permitted but require mandatory BMPs to be implemented prior to discharge. These activities include:

- Dewatering of potable water which includes: drinking water tank draw downs, waterline flushing, fire hydrant flushing, and water main/pipeline flushing
- Swimming pool or hot tub draining (Excludes salt water pools. Salt water pools should never be drained into a stormwater system.)

For details on how to correctly dechlorinate potable water, swimming pools, and hot tubs before dewatering refer to the back of this Fact Sheet.

Objectives	
Cover	
Contain	
Educate	X
Reduce/Minimize	X
Product Substitution	

### GUIDELINES

- ONLY DISCHARGE CONTAINING ONLY STORMWATER IS ALLOWED INTO STORM DRAINS AND STORM SEWERS.
- Dewatering fluids must be dechlorinated before entering storm drains.
- Prior to dewatering, evaluate the site conditions. When releasing large amounts of water onto a landscape there is the potential to erode, suspend, and transport sediment into storm drains. DISCHARGE MAY ONLY DRAIN TO NON-ERODIBLE SURFACES.
- Evaluate your flow path if you are discharging large volumes of water or anticipate high flow rates to minimize erosion and the transport of sediment to storm drains and receiving waters.
- Denuded and exposed areas are especially susceptible to erosion. If possible, flow should be diverted away from susceptible areas to areas that are well vegetated and stable. If avoiding these areas is not feasible then additional erosion and sediment controls will need to be implemented.
- If possible, remove all loose soil and debris from flow path. Use a broom to sweep up gutters and curbs of loose materials like dirt, dust, and other debris that can be picked up and moved into the storm drains. To prevent flooding, make sure the storm drains in which you will be discharging to are unclogged and clear of debris. If you discover a problem with a storm drain call DPW/Base Operations and Maintenance at 703-806-3109.



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### MAINTENANCE/GOOD HOUSEKEEPING

**Dechlorination of Potable Water:** All potable water must be properly dechlorinated prior to discharge. In most cases this can be done by simply allowing enough time for chlorine to dissipate. This is usually achieved by allowing water to stand for 7-14 days. Chlorine testing kits are readily available and easy to use. Prior to draining make sure there is no detectable chlorine (less than .01mg/l is acceptable). In the event that time does not allow for this method of dechlorination, it can also be done quickly and easily by using the following methods:



- *Dechlorination mats/strips and tablets* – Dechlorination mats consisted of a mesh type material with pockets to hold dechlorination tablets. These mats are simple laid perpendicularly across the flow path of water before it enters storm system. It is important to make sure all water from the source is crossing mat. Check chlorine residual from downstream sample to ensure adequate dechlorination is taking place. This method of dechlorination is often used during tank draining and pipeline flushing.



- *Dechlorination diffuser* – Dechlorination diffusers are devices that are designed to either attach to a fire hydrant or fire hose. These devices have either a chamber for dechlorination tablets or they allow for dechlorination mats to attach to the face. The device is simply attached to hydrant or hose and water filters through it. This method of dechlorination is often used during hydrant testing/flushing and pipeline flushing/dewatering. If flow

rates are high, volume is high or discharge has uncharacteristically high chlorine levels, then additional BMPs may be needed.

The following BMPs must be followed in order to properly and lawfully discharge swimming pool and hot tub water into storm drains and sewer systems.

**Chlorinated Hot Tubs and Pools:** Ideally swimming pools and hot tubs should be discharged into sanitary sewer systems. This is because swimming pools and hot tubs often contain larger amounts of chlorine and other chemicals than potable water. Sending pool/hot tub water to a treatment facility via sanitary sewer lines will ensure most of the chemicals get filtered out. If draining water to sanitary sewer isn't feasible than proper dechlorination procedures must be implemented. In most cases this can be done by simply allowing enough time for chlorine to dissipate by allowing water to stand for at least two weeks (14 days). Chlorine testing kits are readily available and easy to use. Prior to draining make sure there is no detectable chlorine (less than .01mg/l is acceptable). In the event that time does not allow for this method of dechlorination, the same methods of dechlorinating of potable water can be applied to draining swimming pools and hot tubs. However, dechlorination supplies may have to be used to adequately dechlorinate waste water.

**ENSURE DISCHARGE RATE IS NON-EROSIVE IF DISCHARGE POINT IS INTO THE ENVIRONMENT!**