

## **Maintenance Procedures for Hoffman Creek Diversion Point**

Hoffman Creek Diversion Point maintenance activities consist mainly of visual inspection and periodic sedimentation removal, as detailed below.

### *Visual Inspection and Repairs*

Visual inspection for functionality and continued soundness of structure occurs approximately monthly. No repairs have been required in recent history, as there has been no visual degradation of the equipment. Should maintenance be required in the future, it is anticipated that repairs may consist of resetting a stainless steel bolt or replacing a pipe flange, which only requires hand tools to accomplish and limited disturbance to the diversion structure or surrounding area. No chemicals/toxic substances are involved in any repair procedures. All work occurs outside the creek channel except for bolt replacement. During bolt resetting/replacement, the only materials coming in contact with the creek are the repairer's hands, bolt, and a box wrench (hand tool). Replaced materials are hauled out for proper disposal.

### *Sedimentation Removal*

Sedimentation at the Hoffman Creek diversion point is accumulated approximately 100 feet downpipe from the diversion point in a series of three (3) existing 55-gallon plastic drums used for settling.

Sedimentation removal procedures are as follows:

- Twice annually sedimentation is flushed from the system back into the creek. Discharge is trickled through the rocks on the bank of Hoffman Creek in order to reduce the amount of turbidity associated with the discharge. This procedure is conducted once in mid-spring (March/April) and following first storm event during the fall (October/November). Sedimentation accumulates at a rate of approximately 1.7 cubic feet per year (or .85 cubic feet per 'flush').
- The 55-gallon drums are flushed one at a time, and sediment in the drums is reintroduced to the creek. The resulting discharge back into the creek is approximately 55 gallons, or 7.4 cubic feet of water, containing approximately .28 cubic feet of sediment.

Sedimentation is benign and composed of only those constituents that are naturally occurring in the watershed. Although there is likely an increase in turbidity immediately following the cleanout of sediment, the increase is temporary and short in duration and is not visibly any greater than turbidity that is observed in the creek after a storm event.

## **Maintenance Procedures for Piney Creek Diversion Point**

Piney Creek Diversion Point maintenance activities consist mainly of visual inspection and periodic sedimentation removal.

### *Visual Inspection and Repairs*

Visual inspection for functionality and continued soundness of structure occurs approximately monthly. Occasional leafy debris clearing from clogged ports is required and can be done manually. Repairs are made as needed concurrently with periodic sedimentation removal. Such repairs would, in general, consist of replacement of malfunctioning piping equipment, which only requires hand tools to accomplish. Occasionally, pvc glue is required for repairs. In these instances, parts are glued up away from the structure and away from the creek channel and allowed to fully cure prior to installation. The resulting composite parts can then be installed through mechanical connection (i.e. threads). No other chemicals/toxic substances are involved in any repair procedures. All work occurs outside the active course(s) of water across/through the diversion structure.

### *Sedimentation Removal*

Sedimentation is accumulated behind the diversion point where there is a maximum volume of approximately 13.5 cubic feet (up to the bottom elevation of the bypass port where sedimentation would no longer be able to accumulate). Sedimentation procedures are as follows:

- Twice annually sedimentation is flushed from the system back into the creek. This procedure is conducted once in mid-spring (March/April) and following first storm event during the fall (October/November). Sedimentation accumulates at a rate of approximately 4 cubic feet per year (or 2 cubic feet per 'flush').
- Sediment is removed by opening the cap on the cleanout port, allowing an initial discharge back into the creek that is approximately 102 gallons, or 13.5 cubic feet. Once creek flow through the cleanout port equalizes (approximately 45 seconds), water is captured at the port with a bucket and poured back behind the diversion point to facilitate cleaning of sedimentation through cleanout port. This procedure results in an additional 50 gallons (approximately), with the resulting totals being ~152 gallons of water used to flush the 2 cubic feet of sedimentation.

Sedimentation is benign and composed of only those constituents that are naturally occurring in the watershed. Although there is likely an increase in turbidity immediately following the cleanout of sediment, the increase is temporary and short in duration and is not visibly any greater than turbidity that is observed in the creek after a storm event.