

Plan of Operations and Maintenance

Elm Street Diversion

The following is a list of operation and maintenance items that will require annual attention unless otherwise noted:

A. General

1. Beginning with the date of acceptance of the work of improvement in whole or in part, the term of this agreement is for the evaluated life of the measure, (100 years). The expiration date is determined to be August 1, 2081, unless amended by mutual agreement between the sponsors and the Service.
2. The average annual maintenance cost is estimated to be \$5,000. *1981 dollars?*
3. At least two weeks prior to the scheduled maintenance inspection, the Service will notify the U.S. Fish and Wildlife Service in Cortland, New York (607-753-9334) and the New York State Department of Environmental Conservation (FTS 9-883-5300 or Comm: 914-255-5453) of the inspection date.
4. The sponsor(s) will prohibit the outletting of any drainage ditch, tile, pump plant or any other similar structure into the channel or through the dikes without the approval of the Service.
5. The Service will coordinate with the New York State Department of Environmental Conservation and the U.S. Fish and Wildlife Service prior to granting approval of any drainage proposal facilitated by a project channel that would affect Wetlands of Types 3-20.

B Excavated Channel Bed and Banks

1. The entire channel shall be inspected a minimum of once a year for evidence of erosion or deposition of sediment. Any such evidence shall be brought to the attention of the Service. Corrective measures shall be undertaken as approved by the Service.
2. In addition to the normal inspection described above, the channel shall also be inspected following the occurrence of all unusually high water conditions. The same considerations as above shall apply.

3. All debris shall be removed from the channel and disposed of in a manner so as not to create an unsightly condition. In addition, the debris shall be placed so as to prevent its reentering the channel.
4. Any woody plants growing on the channel banks shall be cut at the base and removed from the channel.
5. Rock riprap shall be replaced as required. Any significant movement of the riprap shall be brought to the attention of the Service.

C. Dikes

1. The dikes shall be inspected at the same intervals as the channel. Any settlement, slippage or erosion of the dikes shall be corrected in accordance with Service recommendations. Any evidence of the above conditions shall be made known to the Service.
2. Fertilizer shall be applied as needed to maintain vigorous growth of vegetation on the dikes. Areas of sparse vegetation will be reseeded as required.
3. Vegetation on the dikes shall be mowed once a year. Any woody vegetation shall be cut at the base and disposed of in the same manner as debris.
4. Rodent holes in the dikes shall be filled, graded and revegetated.
5. Where the Big Hollow dike ties to the sheet piling at the NYS E&G Building the riprap will be inspected to insure integrity. Any settlement of the dikes in this vicinity shall be brought to the immediate attention of the Service. Any corrective actions will be taken as approved by the Service.
6. All dike crossover structures shall be inspected as an integral part of the dikes. Any corrective action needed to insure the proper functioning of the system will be made with Service approval.

D. Bridges

1. The bridges across the channel shall be inspected in conjunction with channel inspections.
2. Any broken or damaged elements or members shall be brought to the attention of NYS Department of Transportation and the Service immediately.

3. Concrete shall be inspected for cracks or other signs of deterioration and repaired as necessary.
4. Storm runoff systems shall be inspected to assure proper functioning.

E. Culverts and Outlets

1. Culverts and outlet pipes that enter the channel shall be inspected for deterioration and blockage. If flap gates are used they will be cleared of sediment or debris that would keep them from functioning.
2. Any debris that prevents the functioning of these pipes shall be removed and disposed of as described previously.
3. Repair or removal and replacement of defective pipes shall be done in accordance with Service recommendations.

F. Low Flow Augmentation System

1. The inlet structure of the system should be inspected monthly to remove sediment or debris from the inlet structures trash rack to allow for continuous low flow.
2. Any broken or missing elements of the trash rack should be replaced.
3. The 42-inch conduit should be inspected annually for unusual settlement or excessive joint gaps.
4. The rock riprap at the plunge pool shall be periodically inspected. Any reshaping or replacing will take place as noted.

G. Concrete Channel and Transition Structure

1. Concrete shall be inspected for cracking, spalling or chipping. This shall be repaired as recommended by the Service.
2. Chain link fence shall have loose or missing parts tightened or replaced as needed.
3. Grouted riprap at outlet shall be inspected for settled or missing pieces. Grout should be replaced as needed.
4. Any accumulated sediment or debris within the system shall be removed from the system.