

## 22. Impact of Storm Water Facilities on Existing Sewers.

### a. General.

- 1) Frequently, Storm Water Management (SWM) facilities are planned and designed to be constructed in close proximity to existing WSSC sewer pipelines and manholes. In these cases, precautions are required so that the proposed SWM facility (generally a storm water impoundment) does not adversely impact the operation, maintenance, and intended function of the sanitary sewer facilities and does not cause increased infiltration into the sewer system. The developer of a SWM facility is to locate any proposed impoundments and berms as far from WSSC facilities as possible.

### b. Guidelines.

- 1) Guidelines for assessing impacts of SWM facilities on the existing WSSC sewer system, as well as procedures for improving or preventing adverse impacts, are provided under "Guidelines and Procedures for Determining Sanitary Sewer Adequacy During Design of Storm Water Management Facility Within WSSC Sewer Jurisdiction" and "Sewer Rehabilitation Procedure for Installing Storm Water Management Facilities Over Existing WSSC Sanitary Sewer Lines and Appurtenances." These documents may be modified from time to time. Obtain the latest version of these documents from the WSSC.

### c. Coordination.

- 1) WSSC will coordinate the inspection of pipelines and appurtenances impacted by SWM facilities. If the existing pipeline requires relocation, assure that the design will not reduce the pipeline capacity and the new alignment does not create safety concerns, for example, access to structures and excessive depth of manholes.

### d. Requirements for Impact Assessment.

- 1) "Guidelines and Procedures for Determining Sanitary Sewer Adequacy During Design of Stormwater Management (SWM) Facility Within WSSC Sewer Jurisdiction".
  - a) These guidelines are copied from a letter from WSSC Project Development Division, dated January 2, 1991.
  - b) When existing sewer pipelines are within the site of a proposed SWM facility, determine the need for relocation or rehabilitation of the sewer in accordance with the following guidelines:
    - (1) Existing manholes.
      - (a) Remove existing manholes within the pool required for the two (2) year design storm floodpool.
      - (b) Rehabilitate as necessary, existing manholes within the ten (10) year design storm floodpool to eliminate all inflow/infiltration points.
      - (c) Rehabilitate as necessary, existing manholes within the one-hundred (100) year design storm floodpool to eliminate all significant inflow/infiltration points.



- (2) Existing sewer pipelines.
  - (a) Rehabilitate as necessary, existing sewer pipelines under the two (2) year design storm floodpool to eliminate all infiltration points.
  - (b) Dam embankments may be permitted over or around existing sewer pipelines if the following is provided: Cost analysis showing the relocation around the embankment is more costly than protection of the existing pipeline; access is provided for equipment to maintain the pipeline; and an agreement to ensure the proper repair of the embankment by a suitable public agency in the event that WSSC has to excavate the embankment.
  - c) If the existing sewer pipeline and manholes are to remain within the floodpool, request an inspection of the existing sewer pipeline and manholes through WSSC. WSSC will coordinate inspection and rehabilitation recommendations.
- 2) "Sewer Rehabilitation Procedure for Installing Stormwater Management Facilities Over Existing WSSC Sanitary Sewer Lines and Appurtenances".
  - a) These guidelines are copied from a letter from WSSC Project Development Division, dated January 2, 1991.
  - b) Pre-design inspection for manholes. Inspect existing manholes that fall within the hundred (100) year floodpool and make recommendations for the manholes. The following are typical recommendations:
    - (1) Leave existing manhole as is.
    - (2) Insure watertight frame and cover is bolted and sealed on the existing lead, or silicone seal older covers.
    - (3) Provide waterproof parging or other exterior waterproof coating to the existing manhole.
    - (4) Provide an interior waterproof sealant within the existing manhole.
    - (5) Ensure watertight pipe connection at the existing manhole.
    - (6) Replace existing manhole, as it is beyond repair.
    - (7) Remove existing manhole and relocate existing sewer pipeline.
  - c) Pre-design inspection for sewer pipelines. Using television inspection of the existing sewer pipelines within the two (2) year floodpool, make recommendations for the sewers. The following are typical recommendations:
    - (1) Leave existing sewer pipeline as is.
    - (2) Spot repair infiltration points.
    - (3) Line existing sewer pipeline in its entirety.
    - (4) Relocate existing sewer pipeline.



- d) Note any existing manholes, or existing sewer pipelines that lie within the earth embankment area and make written recommendations for removal.
- e) If the proposed embankment would be located over the existing sewer, make a cost analysis of the recommended treatment versus relocation of the existing sewer pipeline around the embankment. Final determination will be made by the WSSC.
- f) Submit all recommendations to WSSC. Once approved by WSSC, incorporate the recommendations in the SWM constructions plans.

