



CHAPTER 6 – ALTERNATIVE EVALUATION

SECTION 6.1 – TECHNICAL EVALUATION OF ALTERNATIVES FOR CURRENT AND FUTURE SANITARY SEWER SERVICE AREA

With the identification of problems for the UAJA collection and conveyance system, HRG evaluated several types of alternatives for the resolution of capacity limitations. Solutions for possible implementation included the following options:

- Replacement of limited segments with larger diameter piping
- Construction of parallel relief sewers
- Rerouting of existing interceptors or mains to sewer lines with excess capacity
- Construction of larger or new pump stations to divert flow to sewer lines with excess capacity
- Construction of "scalping" plants that treat flows within a portion of the system that has constraints.

In evaluating the alternatives, several critical facets had to be considered:

- The sanitary sewer lines would be "active" (ie. conveying waste) during construction and sanitary sewer service would need to be maintained throughout any construction operations.
- Most of the sanitary sewer right-of-ways were limited and would need to be increased in width to facilitate active construction operations.

The construction cost estimates presented in Chapter 5 represent the median cost for each of the project sites. Detailed engineering staging plans and field surveys were beyond the scope of an Act 537 Plan Update and will be performed during the design of prospective improvements.

SECTION 6.2 – IDENTIFICATION OF POTENTIAL ENVIRONMENTAL LIMITATIONS FOR ALTERNATIVES FOR CURRENT AND FUTURE SANITARY SEWER SERVICE AREA

As the site specific alternatives are developed and evaluated during design, potential environmental limitations, such as endangered species, will be considered. However, after an initial review of the locations of the collection and conveyance system problem areas, no readily identifiable environmental limitations have been identified. Additionally, each of these project sites has been previously disturbed for the construction of the original sanitary sewers, limiting the potential for previously unimpacted environmental resources. As additional documentation, HRG has prepared PNDI requests for each project site. Upon receipt of correspondence from applicable agencies, they will be forwarded for PA DEP review and comment.

SECTION 6.3 – IDENTIFICATION OF POTENTIAL CULTURAL OR HISTORIC LIMITATIONS FOR ALTERNATIVES FOR CURRENT AND FUTURE SANITARY SEWER SERVICE AREA

As the site specific alternatives are developed and evaluated during design, potential cultural or historic limitations, such as archeological resources, will be considered. However, after an initial review of the locations of the collection and conveyance system problem areas, no readily identifiable cultural or historic limitations have been identified. Additionally, each of these project sites has been previously disturbed for the construction of the original sanitary sewers, limiting the potential for previously undiscovered archeological resources. As additional documentation, HRG has prepared requests for each project site from the Pennsylvania Historic and Museum Commission. Upon receipt of correspondence from the Pennsylvania Historic and Museum Commission, they will be forwarded for PA DEP review and comment.