

# **APPENDIX 6**

## **RWWMP CONTENT**

The following is a preliminary outline describing the anticipated content of the RWWMP. This outline is intended to provide general guidance for the preparation of the RWWMP. It is anticipated that some deviation from this outline will occur in the development of the RWWMP.

### **1. Introduction**

- 1.1 Background
- 1.2 Purpose and Format of Regional Wet Weather Management Plan

### **2. Consent Order Requirements**

### **3. Public Participation and Agency Coordination**

### **4. Characterization Report**

- 4.1 Sanitary Sewer System
  - 4.1.1 Localities Sanitary Sewer Systems
  - 4.1.2 HRSD Sanitary Sewer System
  - 4.1.3 Service Areas
  - 4.1.4 Historical Wastewater Flow Projections
- 4.2 HRSD Wastewater Treatment Works
  - 4.2.1 North Shore Facilities
  - 4.2.2 South Shore Facilities

### **5. Planning Process**

- 5.1 Methodology
  - 5.1.1 Large Scale Strategies
  - 5.1.2 SSES Basins
  - 5.1.3 Wastewater Treatment Plant Wet Weather Optimization
- 5.2 Sewer System Capacity Definitions

### **6. Population Forecasts**

- 6.1 Planning Horizon
- 6.2 Population and Employment Forecasts

### **7. System Evaluation**

- 7.1 Model Framework
  - 7.1.1 Dry Weather Flow
  - 7.1.2 Wet Weather Flow
  - 7.1.3 Peak Flow Reductions Expected from Localities' Rehabilitation Plans
  - 7.1.4 Capacity Deficiencies
    - 7.1.4.1 Deficiencies in the Regional Sanitary Sewer System
    - 7.1.4.2 Deficiencies at the WWTPs
  - 7.1.5 Modeled Conditions
- 7.2 Evaluation of Pump Stations, Main Trunk Sewers and Interceptors
  - 7.2.1 Pump Stations, Main Trunk Sewers/Interceptors Studied
  - 7.2.2 Level of Service Evaluation
  - 7.2.3 Peak Flow Events
  - 7.2.4 Methodology
  - 7.2.5 Identification of Hydraulic Deficiencies

- 7.3 Wastewater Treatment Plants
  - 7.3.1 Historical Flow Data
  - 7.3.2 Evaluation for Extreme Events
    - 7.3.2.1 Selection of Historical Events
    - 7.3.2.2 Projecting to Future Conditions
    - 7.3.2.3 Recurrence Frequency Analysis
- 7.4 SSES Basins Not Meeting Peak Flow Threshold
  - 7.4.1 Methodology
  - 7.4.2 Evaluation

## **8. Development and Evaluation of Capacity Enhancement Solutions**

- 8.1 Large Scale Strategy Alternatives Evaluation and Selection
  - 8.1.1 North Shore
  - 8.1.2 South Shore
- 8.2 Pump Stations, Main Trunk Sewers/Interceptors
  - 8.2.1 Analysis of 2, 5 and 10 year LOS
  - 8.2.2 LOS Selection for Pump Stations, Trunk Sewer/Interceptors
- 8.3 SSES Basins Not Meeting Peak Flow Threshold
  - 8.3.1 Mitigation Options
    - 8.3.1.1 RDII Abatement Options
    - 8.3.1.2 Operational Alternatives
    - 8.3.1.3 Conveyance Options
    - 8.3.1.4 Storage Options
    - 8.3.1.5 Satellite Treatment
  - 8.3.2 Alternatives Analysis and Plan Selection

## **9. Wastewater Treatment Plant Alternatives**

- 9.1 Hydraulic Assessment
  - 9.1.1 North Shore
  - 9.1.2 South Shore
- 9.2 Process Assessment
  - 9.2.1 North Shore
  - 9.2.2 South Shore

## **10. Optimization of Wet Weather Improvements**

- 10.1 Description of Large Scale Strategy Alternatives
- 10.2 Sizing the Alternatives
- 10.3 Scoring Alternatives
  - 10.3.1 Cost
  - 10.3.2 Constructability
  - 10.3.3 Operations and Maintenance
  - 10.3.4 Water Quality
  - 10.3.5 Local Impacts
  - 10.3.6 Risks
- 10.4 Selection of the Preferred Alternatives

## **11. Summary of Wet Weather Management Plan Components**

- 11.1 Overview
- 11.2 Capital Improvement Plans
- 11.3 Operating Plans
- 11.4 Program Summary

## **12. Cost Analysis, Implementation Schedule and Risk/Benefit Analysis**

- 12.1 Program Overview
- 12.2 Risk/Benefit Analysis
- 12.3 Affordability Analysis
- 12.4 Prioritization of Improvements
- 12.5 Implementation Schedule
- 12.6 Operating Plans