

Development of an Integrated Plan

Opportunities for Integrated Planning

- Maximize environmental/human health benefits in community over time
- Better allocate community resources
- Address all water-related obligations and associated costs
- Consider green infrastructure projects: reduce peak flows from CSO areas; reduce I/I from SSO areas
- Consider watershed planning needs
- Better achieve asset management needs
- Better address environmental justice issues
- Incorporate flexibility to revise priorities within community resources as future obligations arise and new information is obtained

Overview of IP Process

- Identify all water-related obligations over next *[x]* years
- Define costs and schedule/timing requirements associated with meeting identified obligations
- Update or develop financial capability assessment (FCA) to define resources community can afford to spend on meeting identified obligations
- Define environmental/human health impacts (positive and negative) associated with meeting identified obligations
- Prioritize schedule for compliance with identified obligations based on achieving the greatest possible environmental/human health benefits for the available resources
- Evaluate need for legal relief to authorize implementation of schedule based on available resources and benefits achieved
- Develop an Integrated Plan or revise existing LTCP into an Integrated Plan

Outline for IP Development

- I. Identify all water-related obligations over next *[x]* years
 - A. CSOs
 - B. SSOs
 - C. WWTP needs
 - D. Satellite treatment facilities
 - E. Stormwater/MS4 program
 - F. Drinking water/SDWA
 - G. Future NPDES obligations
 1. Nutrient control
 2. Obligations arising from TMDL
 3. State water quality standards rulemaking
 - a. Antidegradation rulemaking
 - b. Nutrient rulemaking
 - c. Bacteria/pathogen rulemaking
 - H. Non-water obligations that could affect City's ability to finance/afford water-related activities should also be considered
- II. Define costs and schedule/timing requirements associated with meeting identified obligations
 - A. Best estimates of costs using available information
 - B. What factors could substantially increase or decrease costs as estimated?

- C. Timeline of compliance deadlines
- D. Timeline of costs as they will be incurred
- E. Include alternative scenarios from no action to full compliance
- III. Update or develop financial capability assessment (FCA) to define resources community can afford to spend on meeting identified obligations
 - A. Determine acceptable rates to community over desired period of time
 - B. Incorporate all factors into FCA that could help justify total project costs that would allow the city to maintain acceptable rates
 - 1. Consider both economic and social impacts
 - 2. Incorporate most recent census data
 - 3. Estimated effect on low-income households/environmental justice communities
 - 4. Expected utility revenues over next [x] years: how much, from where, when?
 - 5. Measures needed to ensure sustainable funding plan
 - 6. Expected demographic changes over next [x] years: population increases, decreases, shifts; employment trends; potential gain/loss of large employers
 - 7. Available funding sources over time: fees, taxes, bonds, loans, grants
 - 8. Effect of increased debt on bond rating, interest rate, ability to fund future activities
 - 9. Effect of projected rate increases on industrial/residential ratepayers, industrial/residential flows (conservation, closing, moving), ability to retain suburban customers
 - 10. Anticipated economic/demographic trends: MHI gains/increases, population increases/decreases; rate/tax collection increases/decreases
 - 11. Electric/water/telephone/cable/internet utility rate increases
 - 12. Limits on availability of property tax increases
 - 13. Estimated budget shortfalls (city, county, other taxing entities)
 - 14. Reduction in city staff
 - 15. Background/history of community development; how these obligations could affect future trends
 - a. Population
 - b. Manufacturing jobs
 - c. Major employers
 - d. Number of employees
 - e. Wages
 - f. City/utility revenues
 - 16. Age of population
 - a. Shift to old/young dependents rather than wage earners?
 - b. Total population per age class over time
 - c. Affect on ability to afford increased rates
 - 17. Historic median and per capita income
 - a. Decreases over time
 - b. Comparison to state, national levels
 - c. Future projected decreases
 - 18. Historic population % low income, at poverty, below poverty level
 - 19. Education levels over time
 - 20. Availability of affordable housing, other basic necessities
 - a. Is population spending greater %MHI on housing, etc.
 - b. Affect on ability to afford increased rates
 - 21. Consider multiplier effect—increased impact from loss of revenues in the community

- 22. Any other factors that should be considered in determining community's ability to fund water-related activities
- C. Sensitivity analysis—effect on affordability estimates of possible changes in underlying assumptions
- IV. Define environmental/human health impacts (positive and negative) associated with meeting identified obligations
 - A. Choose desired metrics to measure environmental/human health impacts
 - 1. Number of CSO/SSO events
 - 2. Number of gallons discharged
 - 3. Reduced pollutant loadings
 - 4. Water quality/concentration
 - 5. Elimination of impairments
 - 6. Number of people exposed
 - 7. Areas addressed
 - 8. Effect on environmental justice communities
 - 9. Healthy aquatic community
 - 10. Days of achievement of recreational uses
 - 11. Stream miles available for swimming
 - 12. I/I reduction
 - 13. Exclusion of stormwater (gallons/areas) from system
 - 14. Energy usage
 - 15. Greenhouse gas emissions
 - 16. Multi-media impacts (increased environmental impact elsewhere, effect on WWTP ability to treat other parameters, etc.)
 - 17. Other?
 - B. Determine methods available to evaluate metrics identified
 - 1. Literature
 - 2. Modeling
 - 3. Monitoring
 - 4. Other?
 - C. Include scenarios from no action to full compliance
 - D. Identify KOTC/point of diminishing returns
- V. Prioritize schedule for compliance with identified obligations
 - A. Compare life-cycle costs/benefits of various activities at various levels of effort/control
 - B. Develop proposed schedule of activities to ensure best use of community resource and achieve greatest environmental/human health benefits first
- VI. Determine best implementation mechanisms
 - A. Integrated permit
 - B. Judicial consent decree
 - C. Administrative order
- VII. Evaluate need for legal relief to authorize implementation of schedule based on available resources and benefits achieved
 - A. Compliance schedules
 - B. Variances
 - C. Other permit modifications
 - D. UAA to modify existing water quality standards
 - E. Other regulatory relief needed to allow revision of priorities as future obligations arise?

- VIII. Develop an Integrated Plan or revise existing LTCP into an Integrated Plan
 - A. Develop/incorporate revised schedule of activities and legal relief mechanisms
 - B. Expedite activities with greater environmental/health benefits
 - C. Remove/postpone activities with fewer benefits or significant negative impacts
 - D. Provide for stakeholder involvement