September 7, 2018

California Watershed Planning Overview

Floodplain Management Association,
Annual Conference
Reno, NV

Michael Mierzwa, P.E.
Civil Engineer, Planner & Policy Advisor
CA Department of Water Resources
Executive Division

TODAY’S DISCUSSION

Water Resources Management Planning in General
- Dealing with Complex Systems
- Roles of Plans

Examples of Watershed Plans
- 2006 Hetch Hetchy Restoration Study
- 2012 Coastal Louisiana Protection Plan
- 2017 Update to the Central Valley Flood Protection Plan

River Basin Plan Concept
- River Basin Planning
Water Resources Management Planning in General
CA Water Management is Complex
Roles of Plans in Water Management

Plans help inform decisions …

Plan Recipe

- Provide Context & Set Objectives
- Describe Performance of Several Ideas
- Estimate Cost (Time & $$$) of Recommendation
- Show a Path to Implementation for Recommendation

Types of Plans

- Policy Recommendations
  - Governance (Roles & Responsibilities)
  - Regulatory
  - Strategic (Leadership)
- Resource Prioritization (Budget & Staff)
- System Investment
- Tactical (Directing Action)
- Project Investment
- Engagement
- Technical
- Meeting Facilitation
Policy Focused Plan vs. Report

1. Statewide Focus – estimated exposure and level of investment
2. Created map books
3. Catalogued history of flooding
4. Articulated 7 high level / policy recommendations
5. Established key flood management vocabulary / terminology
Was it Actionable?

1. Statewide Focus – estimated exposure and level of investment
2. Created map books
3. Catalogued history of flooding
4. Articulated 7 high level / policy recommendations
5. Established key flood management vocabulary/terminology

Plan Recipe

- Provide Context & Set Objectives
- Describe Performance of Several Ideas
- Estimate Cost (time & $$$) of Recommendation
- Show a Path to Implementation for Recommendation
Examples of Watershed Plans

*Watershed plans are much more than traditional feasibility studies ...*

*They can include:*

- *emergency plans,*
- *investment plans,*
- *operation agreements,*
- *regulatory frameworks,* etc.
Non-Traditional Feasibility Study

- Summary of two decades of competing studies
- Created a clearing house of these studies
- Identified limitations of existing studies for answering comprehensive solution
Levels of Study

Implementation of action must move through increasingly more detailed levels of study:

- Conceptual
- Appraisal
- Feasibility
- Site-Specific
- Design
- Plans & Specifications
Large-Scale Example: Louisiana’s Coast

Louisiana’s Comprehensive Master Plan for a Sustainable Coast

- Released May 2012
- Coastal Louisiana
- Developed near- and long-term lists of $50B worth of coastal restoration projects over next 50-years
- Embraced a comprehensive approach to flood management and restoration by developing a diverse portfolio of project types
Example of a Large-Scale Investment Plan:
Central Valley Flood Protection Plan

- Originally (2012) considered 4 different approaches, each with its own implementation time frame
- Transitioned (w/ 2017 Update) to describing investments needed within a moving 30-year time period
- Legislation (Senate Bill 5) calls for the comprehensive management plan to be updated every 5-years
CVFPP Planning Process, Assessments

Regional Flood Management Plans

Conservation Strategy

Basin-Wide Feasibility Studies

OMRR&R Workgroup Technical Memo

Investment Strategy
Assessing the Usability of the CVFPP

Plan Recipe

1. Provide Context & Set Objectives
2. Measure Performance of Student Ideas
3. Estimate Cost (Initial & ANN) of Recommendation
4. Show Path to Implementation for Recommendation

CVFPP Update

Contributions to Primary Goal: Enhancing Risk Management
River Basin Planning
River Basin Planning **10 Golden Rules**

1. Develop a comprehensive understanding of the entire system

2. Plan and act, even without full knowledge

3. Prioritize for current attention, and adopt a phased and iterative approach to achieve long-term goals

4. Recognize that basin-planning is iterative and often chaotic

5. Enable adaptation to changing circumstances
River Basin Planning **10 Golden Rules**

6. Develop relevant and consistent thematic plans

7. Address issues at the appropriate scale by nesting local plans under the basin plan

8. Engage stakeholders with a view to strengthening institutional relationships

9. Focus on implementation of the basin plan throughout

10. Select the planning approach and methods to suit the basin needs
Transitioning from Planning to Implementation

- Basin Goals & Objectives
- Assessment of Basin Management Approaches
- Vision for basin
- River Basin Plan
- Transition to Plan Based Implementation
- Implementation of Actions in Basin

Gain Knowledge of Stressors
Engagement to Strengthen Institutions Responsible for Basin Management
Flexibility to Adapt to Change
Questions

Michael Mierzwa
Michael.Mierzwa@water.ca.gov
Civil Engineer and Policy Advisor
California Department of Water Resources

Sept. 7, 2018