Land Use Water Supply Benefits

October 27, 2011
California Water Plan Plenary Meeting
Elizabeth Patterson, DWR
Land Use RMS
Background

- Update 2005 acknowledge of landuse, supply & flood interaction
- Update 2009 align RMS with State policy and evaluate decision tools to promote concept without regulation
- Update 2013 continue with Pilot to validate decision tool to continue alignment of state policies for best water management practice
Water Plan Update for 2013 and Water Management Decision Tool

- Land Use – one of the top ten 2013 Update Enhancements
- Draft Charter
- Recruiting DWR Regional Offices as Co-Coordinator
Land Use Resource Management Strategy

Land use planning and management cuts across many Water Plan resource management strategies:

- Watershed
- Water use efficiency
- Agricultural lands stewardship
- Flood management
- Water quality
- Habitat
- Sustainable development (e.g. CAPs)
Land Use Planning and Management

Resource Management Strategy

- RMS promotes changes in land use and water planning
- Process for RMS development
  - Governor’s Office of Planning and Research (OPR)
  - Land use caucus to reach consensus on chapter
- Land use tool adopted in 2009 to implement the RMS
Water Management Decision Tool

An approach comparing all costs over the life of development, maintenance and operations for business as usual for urban land use location, site planning and associated infrastructure to low impact development and LEED-ND approaches.
Water Management Decision Tool Concept

IRWMP* Regional Perspectives
- State
- Regional Plans
- General Plan Update
- Project Plan

User Inputs
- Development Type
  - Residential
  - Commercial
  - Mixed Use
  - Industrial/Other Development
- Development Properties
  - Location (Watershed)
  - Site Footprint
  - Density
- Site Characteristics
  - Hydrology
  - Waste Water
  - Water Supply Access
  - Proximity to Infrastructure
  - Other

Life Cycle Costs**
- Water Use/Savings + Infrastructure Maintenance Cost + Avoided Costs + Multiple benefits

COMPARE and CALCULATE
- Baseline
- Moderate Impact Development
- Low Impact Development

Preferred Choice

Decision Point

*Integrated Regional Water Management Plan (IRWMP)
**All costs over 50 year time period
Why is a tool needed?

- Need to quantify Resource Management Strategy costs and benefits
- Inform about choices in the future land and water use
- Using tool helps to identify what data is needed - see RMS Recommendations
Land Use: Water Management Decision Tool

- Identify partnerships with DWR Regional Districts and IRWM region.
- Seek academic collaboration.
- Identify desired outcomes for the pilot region.
- Compile and map the necessary geospatial data for each watershed in selected region.
- Conduct decision tree pilot projects.
Land Use:
Water Management Decision Tool

Schedule

• Revise Project Charter per Public AC feedback  Spring 2011
• Design conference call  March 24th (proposed)
• Co-team coordinator identified  Spring 2011
• WR Regional District participation  Spring 2011
• Academic partnership  Spring 2011-2012
• Pilot project initiated  Fall 2011
Recommendations

- Integrate Regional Water Management and local land use plans
- Provide funding incentives and technical assistance
- Enhance research and data gathering
- Promote interagency coordination
Tool Needed to Quantify Costs and Benefits

- How to use
- Cost of tool
- How will it affect local land use jurisdictions
  - Prospective of future growth would consider compact development and agricultural land protection
  - Retrofit potential (infill with mixed use)
- Agricultural land protection
- Consider climate change impacts
Resource Management Strategy

Tool Benefits of the tool

- Helps to make choices in land use and water supply benefits based on RMS
- Demonstrates why Business As Usual means loss of flexibility and adaptation to climate change
- Quantifies all costs including long term maintenance and replacement
Tool Q & A

• Are there potential Local partners? Public or Private

• Can a Local Agency use the decision tool pilot project?

• To what extent can this approach be used by Integrated Resource Water Management Regions?

• Sign up for Land Use Caucus in January 26, 2012
RMS (OPR Ben)

- Light touch of Update 2009 text
  - (Ben to provide specific)

- Draft RMS update October for review

- Revised text for January Caucus

- Final draft into CWP Update 2013 draft Summer 2012

- Public Review Winter 2013

- Final Fall 2013