

IWMP Update

Policy Discussion
Special Board Meeting
June 24, 2011

Facilitated by:
Lisa Maddaus, P.E.



Agenda

- Timeline of planning efforts
- Refresher on IWMP Recommendations
- Review “why” do this effort and why now?
- Walkthrough each recommendation, associated policy issues and suggested next steps



Timeline of Events

- Senate Bill 7x-7 enacted in November 2009, requires 20% water use reduction by 2020
- Fall 2009, Brown & Caldwell selected to update to the District's 2007 IWMP and create a 20x2020 Compliance Plan.
- 20x2020 Compliance Plan in September 2010.
- Integrated Water Master Plan update approved in October 2010.
- Maddaus Water Management contracted to develop implementation plan for 20x2020 Compliance Plan and IWMP policy support
- ...**Today:** Special Board meeting to discuss policy options and direction.
- **Discuss any other policy recommendations Board wants to pursue since IWMP**

Why we are doing this now?

- Determine ultimate augmentation and triggers, based on policy not vice versa
- Set policy for future FSA negotiations and future development
- Give staff direction on seeking outside agency approvals, if any
- Foster and encourage 2020 compliance
- Give community advance unveiling of water efficiency program
- Not easy, will take time and money

Plan for Today

- Think big picture, no details or implementation
- Review Summary of IWMP Recommendations
 - Policies and Physical Augmentation options
- Each recommendation will be reviewed at this workshop using the following outline:
 - Goal and deliverable or end product
 - Background
 - Benefits
 - Potential Issues
 - Next Steps



IWMP Recommended Next Steps

Based on approved IWMP as basis for water planning in Oct 2010:

- Re-adopt 90-2 to determine conservation level and number of units served and trigger for when new augmentation supplies are needed.
- Select appropriate augmentation projects and size, including prudent reserve; set the new fee.
- Refine water shortage contingency plan to better define timing of drought stages, related to lake levels, early warning forecasts, etc
- Re-engineer WTP and WWRP phase planning, as well as recycled water transmission and storage facilities
- Pursue CDPH approval for Clementia Reservoir as a drinking water supply during droughts

Outline of Updating Existing or Adding New Policies and Codes

1. New 2020 Policy Statement
2. Updated Water Code – Chapter 14, Section 10
 - Reduced Water Allocation and 2020 Implementation
3. New Recycled Water Policy
4. New Recycled Water Code – Proposed Chapter 17
5. Update Water Shortage Contingency Plan
 - Water Shortage Pricing
6. Update Policy 90-2
7. New Drought Supply Augmentation

Who really has Authority?

- State
 - Urban Water Management Plans and 2020 Compliance
 - State Landscape Ordinance
 - State Building/Plumbing Codes
 - Water Shortage Contingency, Emergency Plans
- County
 - Land use and Building permit
 - County Landscape Ordinance
- CSD
 - Water, Wastewater, Recycled Water codes
 - Water efficiency program and landscape ordinance
- RMA
 - ARC Landscape approval
- Customers
 - Landscape design
 - Choices in water using equipment

2020 Policy Discussion

- Goal:
 - Solidifies discussion from last year's workshops and language in 2020 Compliance Plan and IWMP on CSD intention to meet 2020 targets by 2020
 - End product is a Policy statement that CSD will use best (or all) efforts to comply with 2020
- Background:
 - 2020 Compliance Plan adopted in September 2010
 - IWMP adopted in October 2010
- Benefits:
 - Helps ensure future water rights extensions and justification of beneficial and reasonable use of existing water rights by meeting 2020 target water demand reductions

2020 Policy Discussion (con't)

- Potential Issues:
 - Policy statement can build off of adopted 2020 Compliance Plan introductory language
 - Implementation Issues:
 - Working with RMA
 - Large lots plus exclusive easements
 - High usage
 - Green lawn syndrome
 - Reeducation
 - Others?
- Next Steps:
 - Review draft 2020 Policy Statement language language at July 20th Board meeting
 - Amend language and post for public review
 - Adopt at August or September Board meeting as appropriate

Update Chapter 14 Water Code Discussion

- Goal:
 - Update District Water Code and planning assumptions
- Background:
 - Code is outdated based on new laws passed.
 - Current planning baseline assumption uses 750 gpd/EDU
 - Current large estates have averaged 685 gpd/EDU (IWMP Update, 2010)
 - New building codes in place already will reduce demand some
 - New recycled water policy/code will meet 100 gpd/EDU reduction goal for new connections

Update Chapter 14 Water Code (con't)

- Benefits:
 - Reference needs to be made in Chapter 14, Section 10 to:
 - Current plumbing code standards,
 - Statewide Model Landscape Ordinance and future County landscaping ordinance reduce outdoor irrigation demand by 10% (from $0.80 * ETo$ down to $0.70 * ETo$)
 - Use state, county or our own ordinance and water budget
 - Current building codes – including CalGreen standards
 - Strengthen Water Waste enforcement capability
 - Reference to drought water pricing called for in adopted IWMP and Shortage Contingency Plan
 - Helps to meet Reduced Water Allocation policy (750 gpd/EDU to 650 gpd/EDU)

Cal Green Building Code

Building Class	Component	Effective Date[i]	Indoor Fixtures Included	Indoor Requirement	Landscaping & Irrigation Requirements	Are the Requirements Mandatory?	
Residential	Indoor	>7/1/2011	Toilets, Showers, Lavatory & Kitchen Faucets, Urinals	Achieve 20% savings overall below baseline		Yes	
	Outdoor	>1/1/2011			Provide weather adjusting controllers	Yes	
Non Residential	Indoor	>1/1/2011	Submeter leased spaces	Only if building >50,000 sq. ft. & if leased space use >100 gpd		Yes	
			Toilets, Showers, Lavatory & Kitchen Faucets, Wash Fountains, Metering Faucets, Urinals	Achieve 20% savings overall below baseline		Yes	
	Outdoor	>1/1/2011				Provide water budget	> 1,000 sq ft. landscaped area
						Separate meter	As per Local or DWR ordinance
					Prescriptive landscaping requirements	> 1,000 sq ft. landscaped area	
					Weather adjusting irrigation controller	Yes	

Update Chapter 14 Water Code (con't)

- Potential Issues:
 - Working with RMA on State/County Landscape ordinance enforcement and review (when applicable, etc.)
 - Water Waste patrols, fees, waivers
 - Drought pricing mechanisms
 - Reduced water allocation (connected to recycled water policies item #3 and Water Shortage Plan)

Update Chapter 14 Water Code (con't)

- Next Steps:
 - Outline more specifics on how codes reduce demand in the future (including Board decisions for next steps on recycled water for new connections)
 - Review proposed draft language changes to Chapter 14 (red-line strike-out version) at July or August Board meeting
 - Amend language and post for public review
 - Adopt at September Board meeting, if appropriate

New Recycled Water Policy and Code

- Goal:
 - Address next steps on implementing recycled water for future use in the CSD as drought augmentation supply and wastewater disposal preferred (least cost) option.
- Background:
 - Biggest impact, easiest to “adopt” but hardest to implement, policy administrative, regulatory, operations and cost
 - 2020 Compliance Plan and IWMP calls for reviewing recycled water opportunities
 - Issues historically with NPDES permit to discharge, current temporary contract for using recycled water
 - Long history of recycled water for golf course irrigation

New Recycled Water Policy and Code (con't)

- Benefits:
 - Offset future potable demands (meets 2020 goals)
 - Meets wastewater discharge requirements by making beneficial use of water for irrigation only
 - Helps to meet Reduced Water Allocation policy (750 gpd/EDU down to 650 gpd/EDU)

New Recycled Water Policy and Code (con't)

- Potential Issues:
 - High capital and O&M cost
 - Current recycled water obligations
 - Need developer agreements to both implement and fund recycled water
 - Recycled water restricted uses and compliance issues
 - New administrative burden to manage to DPH requirements
 - Roles and responsibilities for coordination for enforcement oversight, HOAs and individuals
 - Not beneficial to back end of development
 - Developer push back over cost
 - Other lower cost alternatives may be available

New Recycled Water Policy and Code (con't)

- Next steps
 - Feedback
 - Develop Policy Statement
 - Review other example codes
 - Continue discussion
 - Draft new Chapter 17 for District Code
 - Consider policies/codes for adoption late 2011 or in 2012



Update Water Shortage Contingency Plan and Policy 90-2

- Goals:
 - Align water shortage response with actual need based on other changes in CSD planning (e.g., 2020 Compliance Plan) and as supply reliability change to both the Policy 90-2 and Contingency Plan.
- Background:
 - Needs update to align with new IWMP and Water Shortage Contingency Plan
 - 1924/1977 language needs to align with IWMP Update and new planning assumptions
 - Currently 50% cutback on top of 20% by 2020 goals
 - Plan to update Shortage Contingency on sliding scale of reductions based on achievements for 2020
 - By 2020 when demand reduction goal is achieved, then needs to move down to 30% reduction (on top of 20% permanent savings)

Update Water Shortage Contingency Plan and Policy 90-2 (con't)

- Background (con't):
 - Will follow after other decisions have been finalized on water conservation, recycled water implementation, etc.
 - IWMP relies on Lake Clementia being designated drought water supply source
 - IWMP relies on new water supply augmentation to meet contingencies that will need to be in place in the future to meet build-out demands

Update Water Shortage Contingency Plan and Policy 90-2 (con't)

- Benefits:
 - Linkage to drought triggers and need for drought restrictions
 - Outlines implementation of the water shortage policies in the Water Shortage Contingency Plan
 - Aligns policies between 2020 and water shortage planning and other policy decisions
 - Update drought triggers to support earlier modification of operating rules to hedge more supplies into storage (as needed in next drought)
 - Defines threshold number of units before augmentation supplies are needed

Update Water Shortage Contingency Plan and Policy 90-2 (con't)

- Potential Issues:
 - Depends on other policy decisions first
 - Augmentation fee issues based on funding formula would need updating
 - Needs to track with changing supply augmentation and recycled water policies
- Next steps
 - Feedback
 - Continue discussion
 - Review Water Shortage Contingency Plan proposed changes
 - Review Policy 90-2 Language proposed changes
 - Consider policies/codes for adoption late 2011 or in 2012

Drought Supply Augmentation

- Goal:
 - Shore up supply reliability by meeting the minimum of 600+ AF (300 AF actual need + 300AF prudent reserve) of new supplies, and consider more supplies if economies of scale and grant funding opportunities or other funding becomes available.
 - Policy statement now, and implementation over time?



Drought Supply Augmentation (con't)

- Background:
 - Needs update to align with new IWMP and Water Shortage Contingency Plan
 - 2010 IWMP Update calls for between 300 AF and ~1,500 AF from new supplies
 - Depends on recycled water and use of Lake Clementia
 - Of the supply options in the 2010 IWMP Update, new groundwater supplies is currently being pursued with studies and Prop 84 grant money
 - Planned to meet only medium growth scenario
 - Climate change might make supplies less reliable (more erratic) in the future with more extreme droughts (and in general earlier runoff, which can be somewhat offset with careful tracking of winter flows and snowpack and starting earlier pumping into Lakes)

Drought Supply Augmentation (con't)

- Benefits:
 - More reliable supplies to serve the existing service area, which CSD is obligated by law to do
 - Redundancy in system supplies if groundwater brought online, then better response in case of water treatment plant emergencies
 - Hedging storage in Lakes allows for less extreme cutbacks on customers (potentially less draw on Lake Clementia as a drought supply)
 - Grant funding opportunities

Drought Supply Augmentation (con't)

- Potential Issues:
 - High capital and O&M cost of new supply options
 - Funding needed for augmentation supplies through developer agreements
 - Years to bring online
 - If groundwater is used, then invoke new rules and regulations
 - Prudent buffer or contingency storage
 - Reaffirm Clementia use;
 - Explore alternatives, not just surface storage

Drought Supply Augmentation (con't)

- Next steps
 - Feedback
 - Continue discussion
 - Review Augmentation fee needs
 - Review Water Shortage Contingency Plan and Policy 90-2 in the future
 - Other plan and policy updates will be needed as supply comes online in the future

More Questions?
Comments on Next Steps?