



Region C Water Planning Group Meeting

TRA Central

Wastewater Treatment Plant

December 6, 2004

Agenda

- Action Items
 - Key Water Quality Parameters
 - Available Supplies
 - Bond Length for Large Projects
 - Methodology for Evaluating Water Management Strategies

Agenda

- Action Items (continued)
 - Conflicts of Federal and/or State Actions with Approved Water Supply Plans
 - Unique Stream Segment Committee
 - Letter to TWDB on Planning Process
 - Resolution No. 04-1 (RCWPG Officers)

Action Item

Key Water Quality Parameters

Key Water Quality Parameters

– Recommended key water quality parameters

Key Parameter	Surface Water	Groundwater
Total Dissolved Solids	X	X
Ammonia-Nitrogen	X	
Nitrate-Nitrogen	X	
Total Phosphorus	X	
Chlorophyll-a	X	

Key Water Quality Parameters

- Revised analysis of baseline surface water quality conditions to exclude samples collected from stations that do not represent the quality of the available water supply (tributary streams, coves, etc.).
- Revised analysis shows fewer surface water supplies approaching or exceeding TCEQ screening levels, particularly for ammonia-nitrogen and total phosphorus

Key Water Quality Parameters

- Seeking approval of memo
 - List of key water quality parameters
 - Summary of baseline water quality conditions

Key Water Quality Parameters

- RCWPG Action
 - Approve list of key water quality parameters

Action Item

Available Supplies

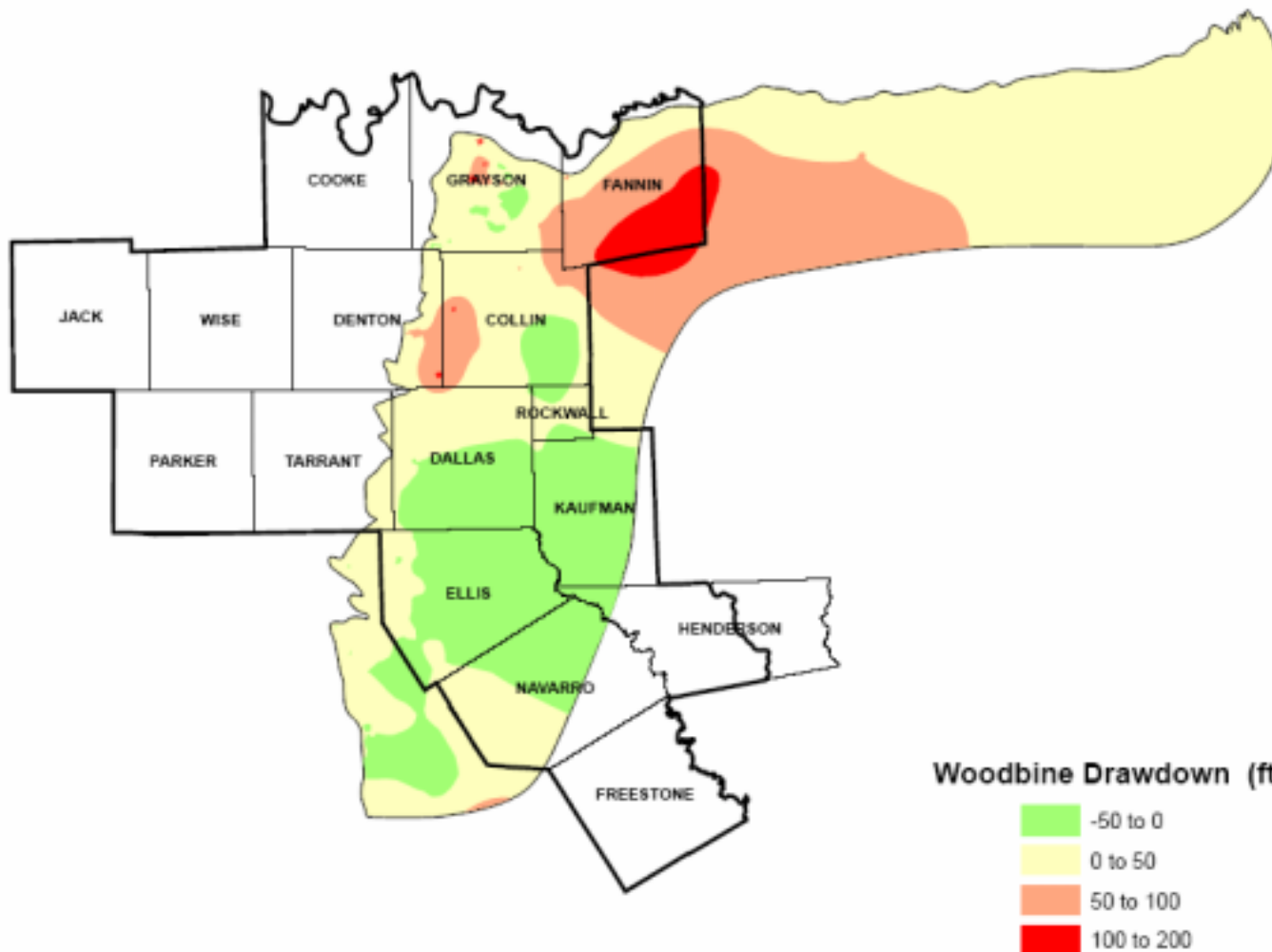
Available Supplies

- Trinity - Woodbine GAM
 - 7 layers in model
 - Layer 1 – Woodbine Aquifer
 - Layers 2 – 7 – Trinity Aquifer
 - Evaluated with TWDB year 2000 pumpage
 - Calculated drawdown – 50 years
 - Revised pumpage to limit long-term drawdown

Available Supplies

- Woodbine Aquifer
 - Under current pumpage, water levels rebound in all areas except eastern Fannin County
 - Increased pumpage between 1.5 and 2 times to achieve drawdowns of 0 to 50 feet
 - Resulted in total water available of 27,300 acre-feet per year in Region C
 - Increase of 7,600 ac-ft/yr from 2001 Plan

Woodbine Aquifer



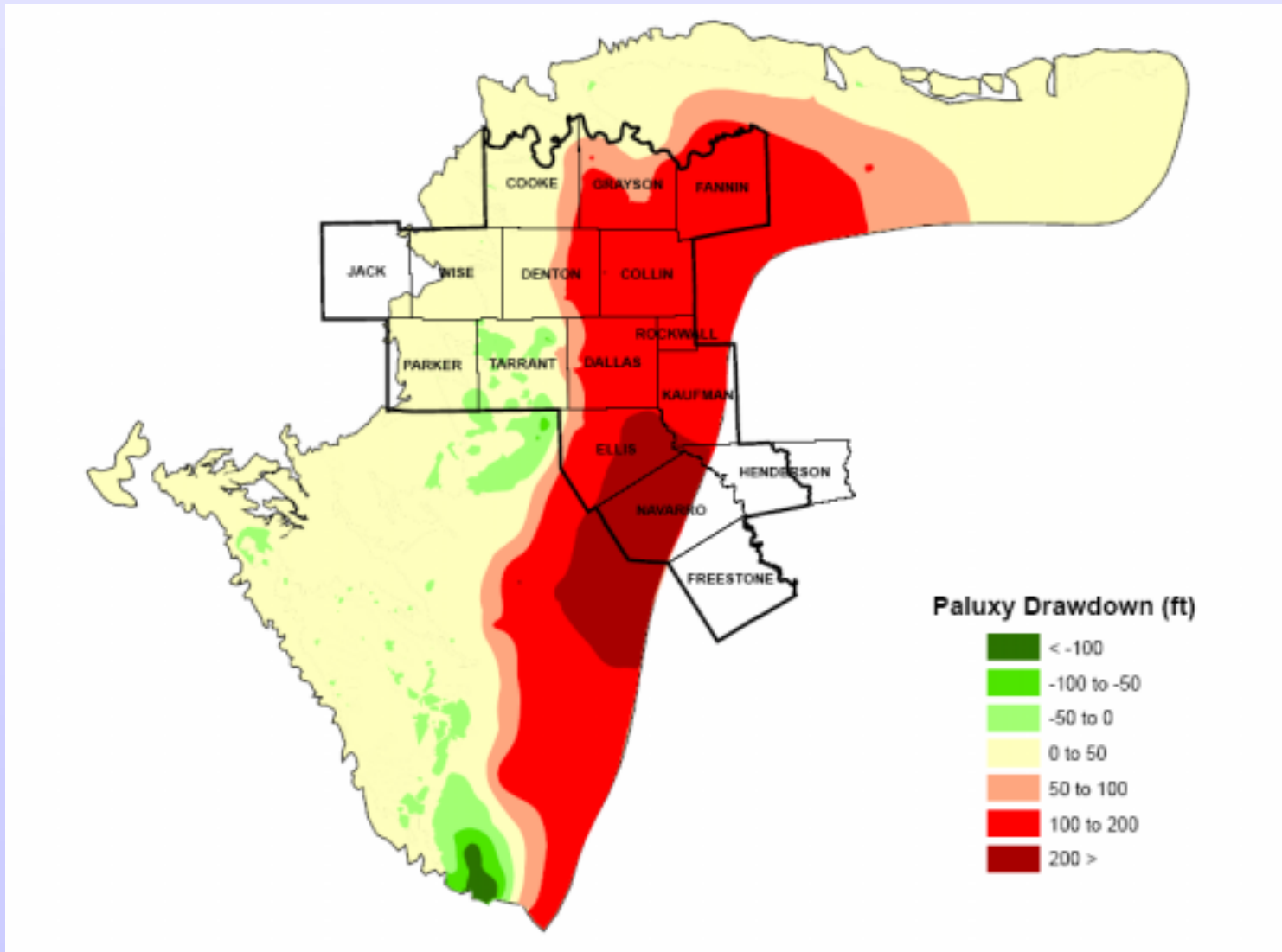
Available Supplies

- Trinity Aquifer
 - 6 layers in model, 3 main layers in Region C
 - Paluxy, Hensel, Hosston
 - Under current pumpage, drawdown ranged:
 - Paluxy (40 to >400 feet)
 - Hensel (-50 to 150 feet)
 - Hosston (-400 to 350 feet)

Available Supplies

- Paluxy Layer
 - Drawdown > 150 feet over most of region
 - Reduced pumpage in 4 counties: Tarrant, Dallas, Ellis and Johnson
 - Revised drawdown ranged from -70 to 240 feet

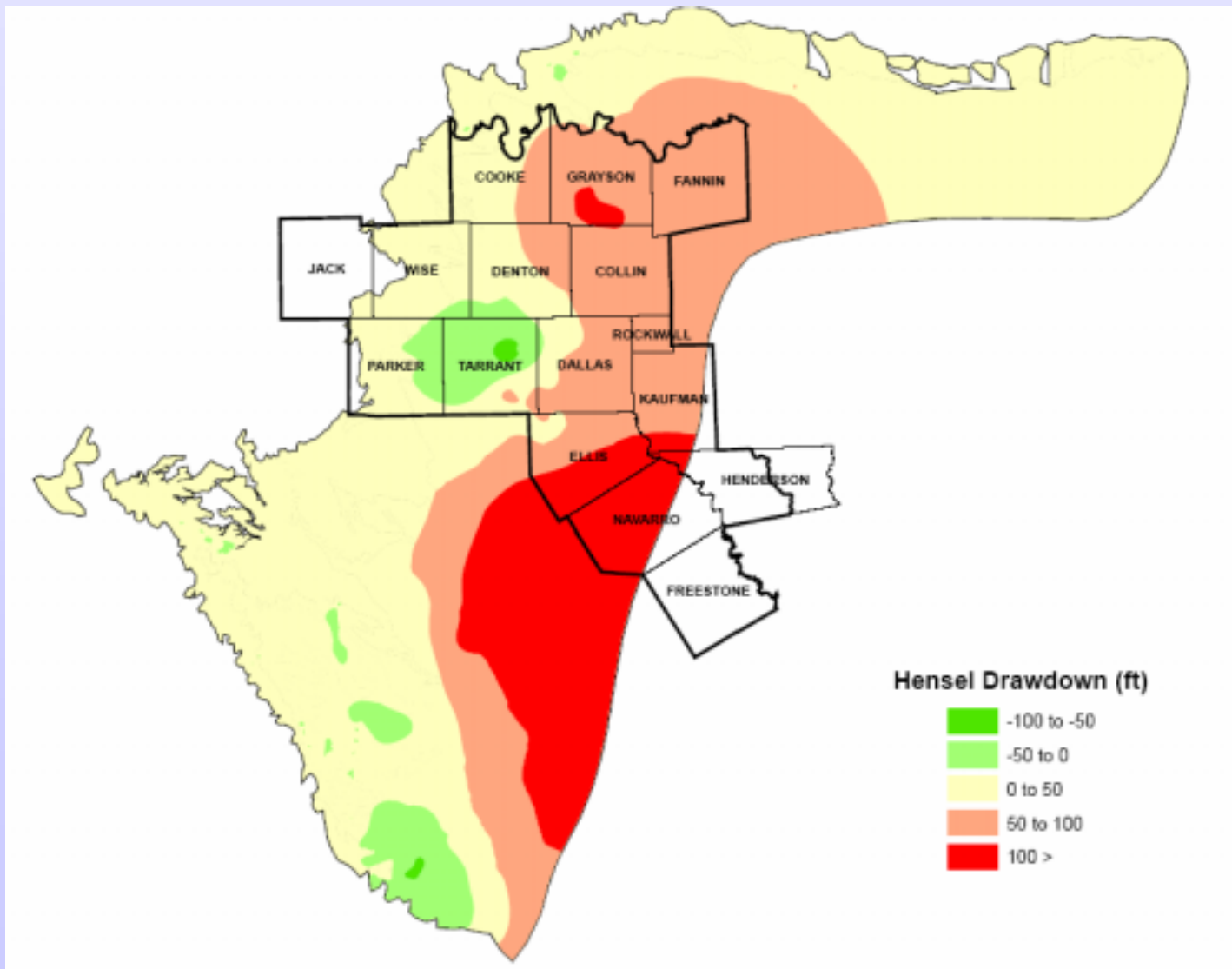
Paluxy Layer - Trinity



Available Supplies

- Hensel Layer
 - Greatest drawdown associated with pumping outside region (southwest of Region C)
 - Impacted only small part of Navarro County
 - Conclude can support current pumpage levels

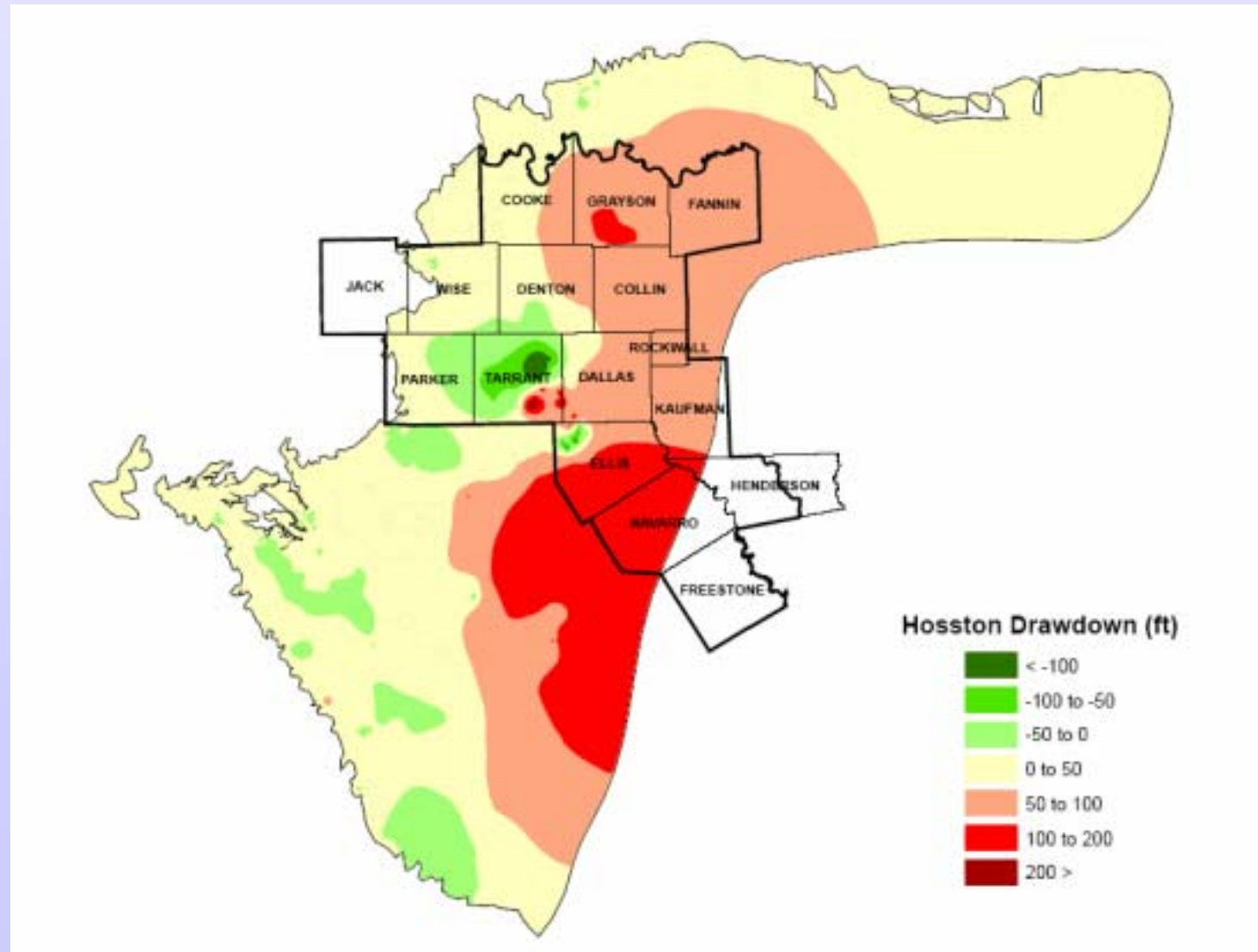
Hensel Layer - Trinity



Available Supplies

- Hosston Layer
 - Greatest drawdown and rebound areas were localized in Tarrant County
 - Ellis County also showed localized rebound
 - Concluded that layer could support 2000 pumpage

Hosston Layer - Trinity



Available Supplies

- Trinity Aquifer supply
 - Total available – 58,100 ac-ft/yr to Region C
 - 7,500 ac-ft/yr more than in 2001 plan
 - Counties with lower pumpage than current – Dallas, Ellis and Tarrant
 - Tarrant County has greater available than in 2001 plan
 - Dallas and Ellis Counties less than in 2001 plan

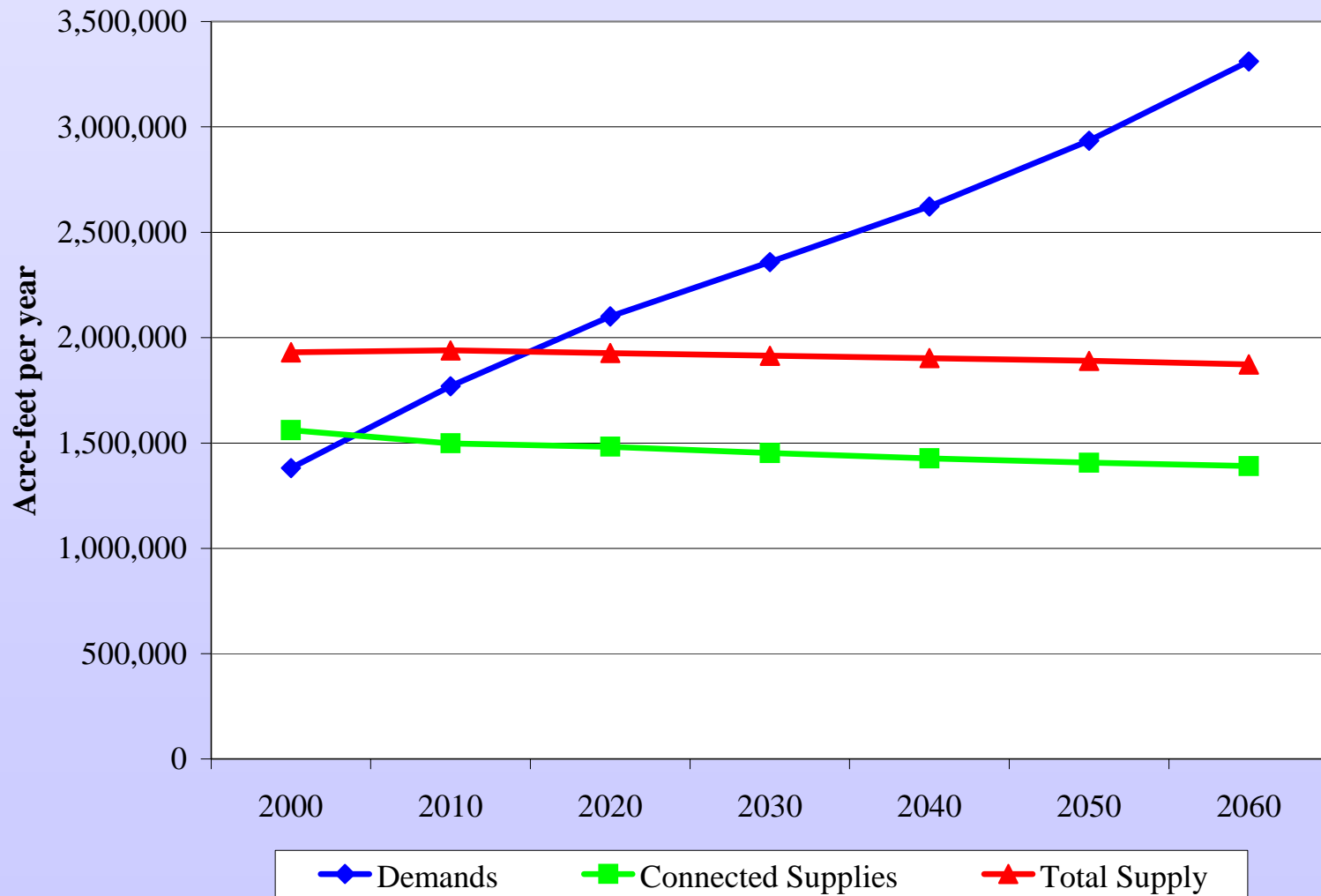
Available Supplies

- Carrizo-Wilcox GAM
 - Recommend using double current demands
 - Results in minimal drawdowns (0 – 8 ft)
 - Total supply from Carrizo-Wilcox is 12,200 ac-ft/yr
 - Substantially less than in 2001 plan (106,900 ac-ft/yr)
 - Should meet needs for entities now using groundwater
- Other Supplies
 - Local Supplies to Livestock
 - Adjusted to historical maximum use in past 10 years
 - Surface water supplies
 - WAM results

Available Supplies

- Distribution of available supplies to each WWP and WUG
 - Operational constraints or policies
 - Infrastructure constraints (WTP, pipeline)
 - Contract limits

Updated Comparison of Supply to Demand



Available Supplies

- RCWPG Action
 - Approve consultants to submit water supply data to TWDB after a 2 week comment period
 - Approve consultants to make corrections to data as needed

Action Item

Bond Length for Large Projects

Bond Length for Large Projects

- TWDB
 - 40 years for reservoirs
 - 20 years for other projects
- Consultant Recommendation
 - 30 years for all projects

Bond Length

- RCWPG Action
 - Authorize consultants to use 30-year amortization period for all projects

Action Item

Methodology for Evaluating Water
Management Strategies

Evaluation of Water Management Strategies

- Must evaluate all potentially feasible strategies:
 - Quantity
 - Reliability
 - Cost
 - Environmental Impacts
 - Impacts to Agricultural / Rural lands
- Other considerations:
 - Threats to natural resources
 - Impacts to other strategies
 - Regulatory requirements
 - Key water quality parameters
 - Must consider for recommended strategies (comprehensive)
 - Other factors

Evaluation of Water Management Strategies

- Factors that can be quantified
 - Quantity
 - Cost
 - Total Land Impacted
 - Some Environmental Factors (for projects that have environmental studies completed)
- Recommend that these factors be reported
 - Quantity, cost and total land impacts – all projects
 - Acres of wetlands (if known)

Evaluation of Water Management Strategies

- Relative Impacts will be assigned to other factors
 - Listed as “high”, “medium” and “low”
- Verbal Description of Strategy and Impacts
 - 1-page summary sheet
 - Identify major issues
 - Can include positive impacts
 - Can include additional quantification if available

Evaluation of Water Management Strategies

- RCWPG Action
 - Approve recommended methodology

Action Item

Conflicts of Federal and/or State
Actions with Approved Water
Supply Plans

Conflicts with Approved Water Supply Plans

- Proposed Hearts Bluff Mitigation Bank, located in Region D, within the Marvin Nichols Reservoir site
- This Mitigation Bank conflicts with 2002 State Water Plan, which identifies Marvin Nichols Reservoir as a water management strategy.
- Current application to US Corps of Engineers to form a Mitigation Bank
 - Sets aside property to sell to entities needing to purchase mitigation land
- RCWPG submitted preliminary comments to Corps
- Comment period extended to Dec 29, 2004

Conflicts with Approved Water Supply Plans

- RCWPG Action
 - Authorize Executive Committee to submit further comments on the proposed Hearts Bluff Mitigation Bank and the general issue of coordination with Regional Water Plans by Dec 29 deadline

Action Item

Unique Stream Segment
Committee

Unique Stream Segment Committee

- Met prior to RCWPG meeting
- Committee report

Unique Stream Segment Committee

- RCWPG Action
 - Take action on Committee recommendations if needed

Action Item

Letter to TWDB Regarding the
Regional Water Planning Process

Regional Water Planning Process

- Increase flexibility in plan
 - Allow regions to adopt alternative water management strategies
- Broaden basis for consistency determination to include entire regional plan
- Provide protection of strategies from state and federal actions
- Support modification of IBT requirements to be more consistent with other permitting requirements
- TWDB advocacy for implementation of plan
- Other discussion / issues

Regional Water Planning Process

- RCWPG Action
 - Authorize the Executive Committee to send a letter to the TWDB regarding the regional water planning process

Action Item

Adopt Resolution No. 04-1

Resolution 04-1

- Appoint Executive Committee to develop slate of officers for 2005
 - Chairman
 - Vice Chairman
 - Secretary

BRIEF INTERMISSION

Agenda

- Discussion Items
 - Conservation Strategies
 - Reserve Water Supplies
 - Media Updates
 - Summary of Speaker Comments to RCWPG (October 4, 2004 meeting)
 - Update on Overall Status and Next Steps

Discussion Item

Conservation Strategies Report

Potentially Feasible Water Municipal Conservation Strategies

- Origin of potentially feasible water conservation strategies
 - RCWPG approved screening methodology in March 2004
 - Potentially feasible water conservation strategies must:
 - Have an identified sponsor or authority
 - Consider the end use of water
 - Meet existing federal and state regulations
 - Be based on proven technology
 - Be able to be implemented
 - Be appropriate for regional planning

Potentially Feasible Water Municipal Conservation Strategies

- Applied screening methodology to municipal water conservation strategies in Water Conservation Implementation Task Force Best Management Practices Guide

Strategy	Potentially Feasible?	If Not, Why?
System Water Audit and Water Loss	Yes	
Water Conservation Pricing	Yes	
Prohibition on Wasting Water	Yes	
Showerhead, Aerator, and Toilet Flapper Retrofit	Yes	

Strategy	Potentially Feasible?	If Not, Why?
Residential Toilet Replacement Programs	Yes	
Residential Clothes Washer Incentive Program	Yes	
School Education	Yes	
Water Survey for Single-Family and Multi-Family Customers	Yes	
Landscape Irrigation Conservation and Incentives	Yes	
Water Wise Landscape Design and Conversion Programs	Yes	
Athletic Field Conservation	Yes	
Golf Course Conservation	Yes	

Strategy	Potentially Feasible?	If Not, Why?
Metering of All New Connections and Retrofit of Existing Connections	No	Few unmetered connections in Region C.
Wholesale Agency Assistance Programs	No	Potential funding source, but not conservation method.
Conservation Coordinator	No	Overhead included in other conservation methods.
Water Reuse	Yes	
Public Information	Yes	
Rainwater Harvesting and Condensate Reuse	No	Limited public participation and cost.
New Construction Graywater	No	Limited public participation and cost.
Park Conservation	Yes	
Conservation Programs for Industrial, Commercial, and Institutional Accounts	Yes	

Potentially Feasible Water Municipal Conservation Strategies

– General

- Implement plumbing code requirements (built into water demand)
- Public and school education
- Water conservation pricing structure
- Impact of increasing water prices
- Water system audit, leak detection and repair, pressure control
- Water waste prohibition

– Indoor

- Water-efficient toilet rebate
- Showerhead and faucet aerator retrofit
- Implement new federal clothes washer standards
- Single-family water-efficient clothes washer rebate
- Coin-op water-efficient clothes washer rebate

Potentially Feasible Water Municipal Conservation Strategies

- Indoor/Outdoor
 - Residential customer water audit
- Outdoor
 - Landscape irrigation systems rebate
 - Landscape design and conversion rebate
- Industrial, Commercial, and Institutional (ICI)
 - ICI general rebate
 - ICI water audit, water waste reduction, and site-specific water conservation program
- Reuse
 - Reuse of reclaimed effluent (direct and indirect)

Potentially Feasible Water Municipal Conservation Strategies

- Evaluating potential water savings and costs for each conservation strategy and each municipal WUG
- Will present preliminary results on regional basis

Potentially Feasible Water Municipal Conservation Strategies

- Unless otherwise noted, conservation strategies evaluated for WUGs that have:
 - A projected water need
 - Existing or projected total water usage > 140 gpcd
 - Not already implemented the strategy
 - An identified sponsor to implement the strategy

Implement Plumbing Code

- Natural replacement of toilets, showerheads, and faucet aerators
- Only low-flow plumbing fixtures available for purchase
- Applies to all WUGs
- Estimated Region C potential water savings and costs
 - Estimated savings from TWDB
 - No cost to WUGs



Item	2010	2020	2030	2040	2050	2060
Quantity (ac-ft/yr)	33,173	66,839	98,074	129,088	155,182	176,304
Unit Cost (\$/kgal)	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00

Public and School Education

- Teaches water-conserving behavior and reinforces such behavior through periodic reminders
- Estimated Region C potential water savings and costs
 - 2% savings by 2010, increasing to 4.5% by 2060
 - Annual per capita cost ranges from \$0.75 to \$3.00, depending on population



Item	2010	2020	2030	2040	2050	2060
Quantity (ac-ft/yr)	27,971	41,491	55,952	72,598	93,080	118,615
Unit Cost (\$/kgal)	\$0.87	\$0.69	\$0.57	\$0.48	\$0.42	\$0.36

Water Conservation Pricing Structure



- Change to increasing-block pricing structure
- Many WUGs have already implemented this strategy
- Estimated Region C potential water savings and costs
 - 1.5% savings
 - No savings estimated if pricing structure unknown
 - Pricing structure known for WUGs comprising 86% of 2060 municipal water demand
 - Capital cost ranges from \$0.11 to \$2.00 per person, depending on population

Item	2010	2020	2030	2040	2050	2060
Quantity (ac-ft/yr)	2,164	5,354	6,340	7,225	7,980	8,542
Unit Cost (\$/kgal)	\$0.11	\$0.04	\$0.00	\$0.00	\$0.00	\$0.00

Impact of Increasing Water Prices

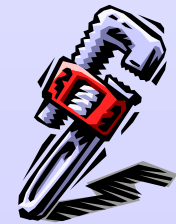


- Water usage generally decreases as water prices rise
- Applies to all WUGs
- Estimated Region C potential water savings and costs
 - Assume 20% increase in real water prices during planning period
 - Assume -0.20 price elasticity of demand
 - Assume half of potential savings offset by increasing incomes
 - No cost to WUGs

Item	2010	2020	2030	2040	2050	2060
Quantity (ac-ft/yr)	5,116	12,192	20,601	30,593	42,904	58,315
Unit Cost (\$/kgal)	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00

Water System Audit, Leak Detection and Repair, Pressure Control

- Account for all water entering and existing system, including different types of water losses
- HB 3338 requires all retail public utilities that provide potable water to perform a water system audit
- Estimated potential water savings:
 - Difference between existing and target unaccounted-for water
 - Target 12% for urban/suburban WUGs, 18% for rural WUGs
 - No savings estimated when unaccounted-for water unknown
 - Unaccounted-for water known for WUGs comprising 68% of 2060 municipal water demand
 - Calculated annual per capita cost ranges from \$1.56 to \$3.28, depending on population



Item	2010	2020	2030	2040	2050	2060
Quantity (ac-ft/yr)	1,892	7,175	8,889	10,503	11,908	13,149
Unit Cost (\$/kgal)	\$2.26	\$0.66	\$0.63	\$0.64	\$0.63	\$0.63 ⁹

Water Waste Prohibition



- Prohibit irrigation water waste
- Estimated Region C potential water savings and costs:
 - Based on installation of rain sensors
 - 3.3 percent of irrigation water usage for accounts with automatic irrigation systems
 - No savings estimated for WUGs without enforcement authority (e.g., WSCs)
 - No savings estimated if implementation of prohibition unknown
 - Status of prohibition known for WUGs comprising 71% of 2060 municipal water demand
 - Capital costs range from \$0.01 to \$0.50 per person, depending on population; annual cost per capita of \$0.25 for enforcement
 - Assumed number of automatic irrigation systems

Item	2010	2020	2030	2040	2050	2060
Quantity (ac-ft/yr)	0	1,706	4,187	4,864	5,427	5,946
Unit Cost (\$/kgal)	\$0.00	\$0.99	\$0.46	\$0.43	\$0.42	\$0.41

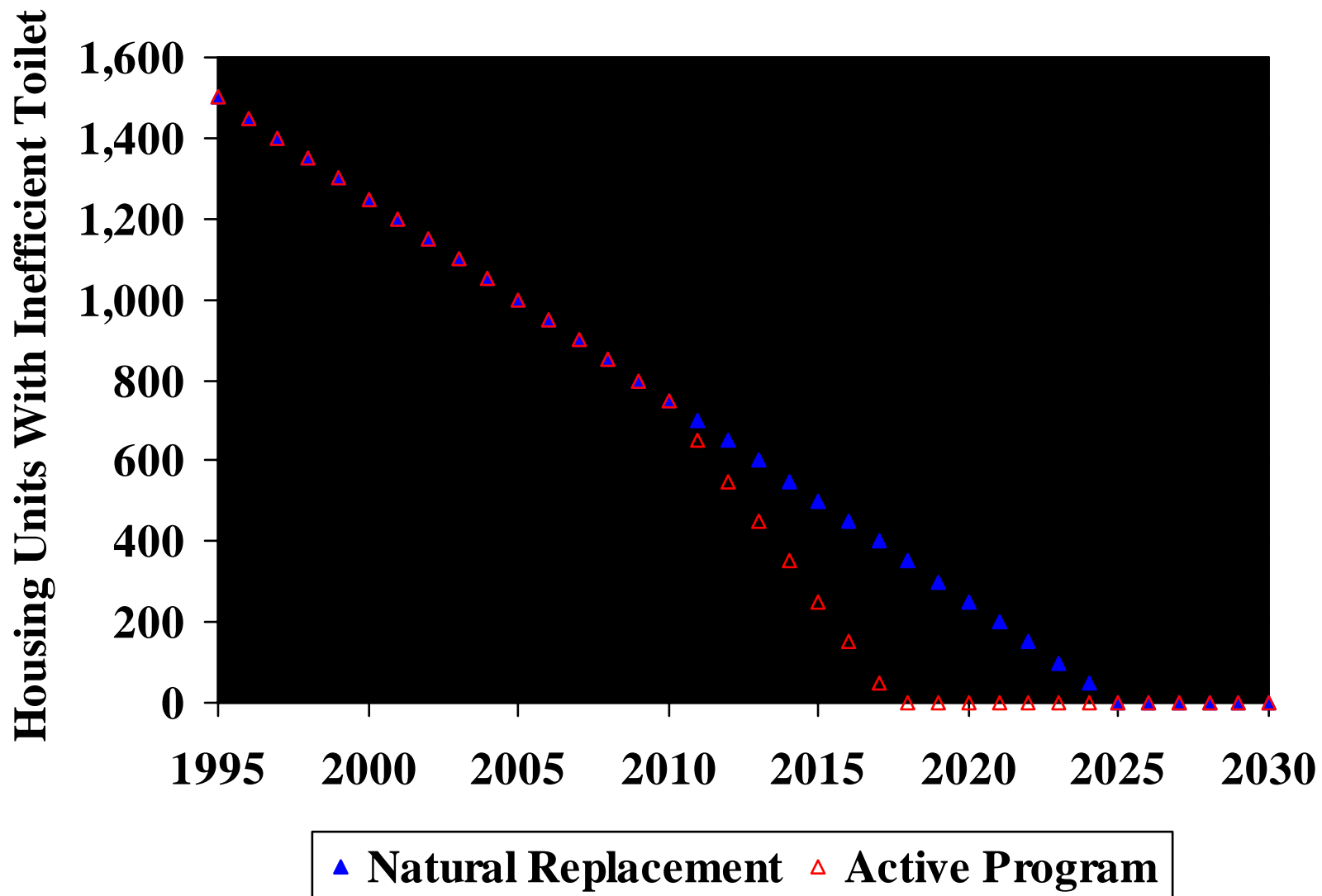
Water-Efficient Toilet Rebate

- Replace older, inefficient toilets (residential customers)
- Estimated Region C potential water savings and costs:
 - Replacing all inefficient toilets in a household saves 10.5 gallons per day per resident
 - Cost \$120 per rebate (includes rebate, marketing, overhead)
 - Assume that rebate program doubles natural replacement rate
 - Typical toilet life is 30 years
 - Savings from rebate program are temporary



Item	2010	2020	2030	2040	2050	2060
Quantity (ac-ft/yr)	683	6,039	0	0	0	0
Unit Cost (\$/kgal)	\$5.36	\$3.87	\$0.00	\$0.00	\$0.00	\$0.00

Active Program vs. Natural Replacement



Showerhead and Faucet Aerator Retrofit



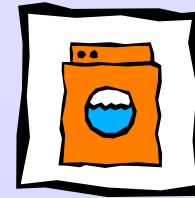
- Replace older, inefficient showerheads and faucet aerators (residential customers)
- Estimated Region C potential water savings and costs:
 - Little potential for savings
 - Plumbing code revised in 1992
 - Typical life of showerhead/aerator is 15 years
 - Most showerheads/aerators should will be replaced by 2010.



Item	2010	2020	2030	2040	2050	2060
Quantity (ac-ft/yr)	0	0	0	0	0	0
Unit Cost (\$/kgal)	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00

Implement New Federal Clothes Washer Standards

- Require energy-efficient residential clothes washers by 2007
- Will also result in water efficiency
- Applies to all WUGs
- Estimated Region C potential water savings and costs:
 - Replacement of an inefficient SF clothes washer saves 5.6 gallons per day per resident
 - No cost to WUGs



Item	2010	2020	2030	2040	2050	2060
Quantity (ac-ft/yr)	7,798	33,557	38,613	43,823	49,569	56,021
Unit Cost (\$/kgal)	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00

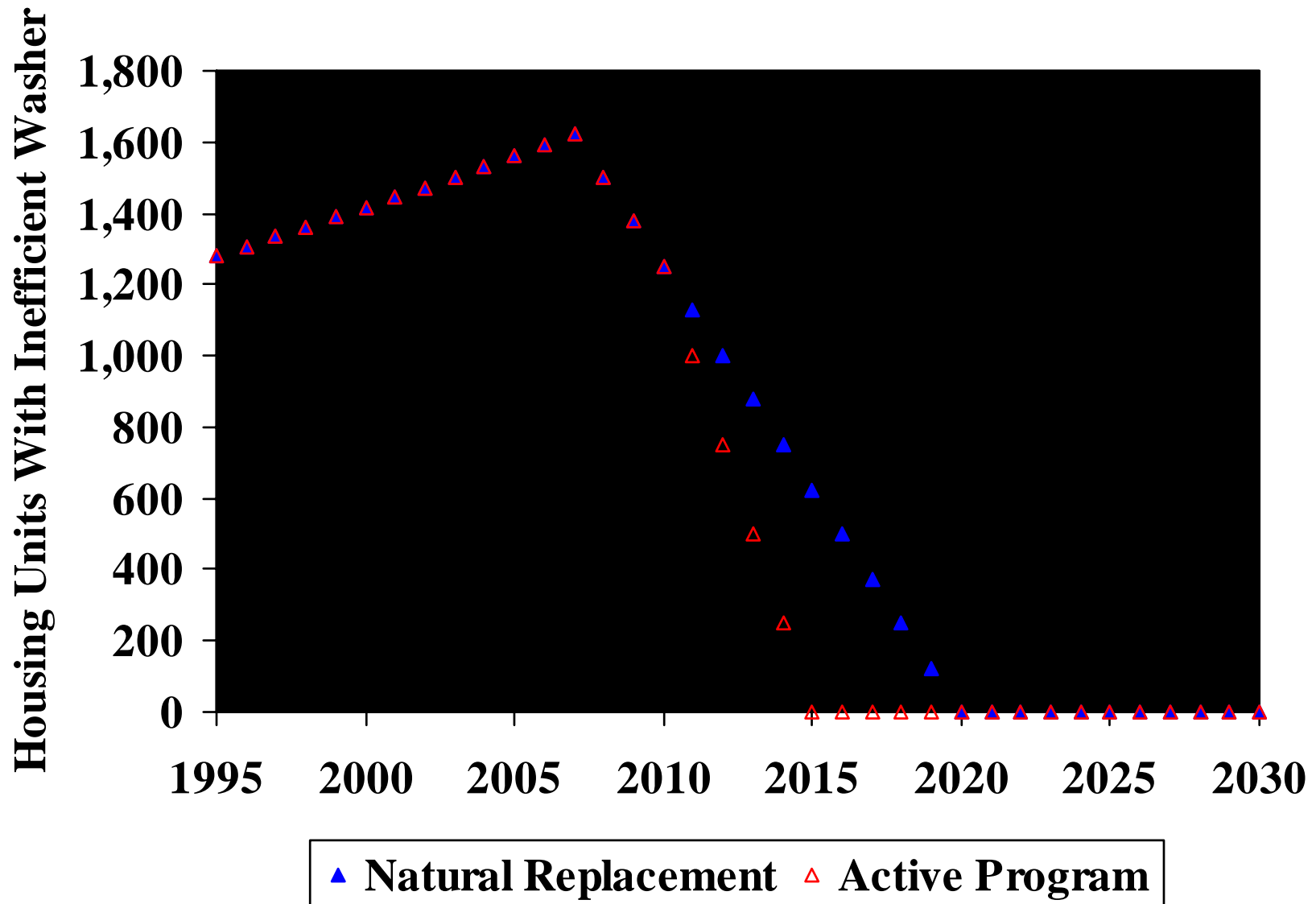
SF Water-Efficient Clothes Washer Rebate



- Rebate for replacement of inefficient clothes washers (SF customers)
- Estimated Region C potential water savings and costs:
 - Replacement of an inefficient SF clothes washer saves 5.6 gallons per day per resident
 - Cost \$150 per rebate (including rebate, marketing, overhead)
 - Assume that rebate program doubles natural replacement rate
 - Typical life of SF clothes washer is 13 years
 - Savings from rebate program are temporary

Item	2010	2020	2030	2040	2050	2060
Quantity (ac-ft/yr)	1,487	0	0	0	0	0
Unit Cost (\$/kgal)	\$4.27	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00

Active Program vs. Natural Replacement



Coin-Op Water-Efficient Clothes Washer Rebate

- Rebate for replacement of inefficient clothes washers (MF customers and laundromat)
- Estimated Region C potential water savings and costs:
 - Replacement of an inefficient clothes washer saves 5.6 gallons per day per person using the washer
 - Cost \$208 per rebate (including rebate, marketing, overhead)
 - Typical life of coin-op clothes washer is 8 years
 - Assume that rebate program doubles natural replacement rate
 - 18 MF units per MF coin-op washer
 - 12 SF units per laundromat coin-op washer



Item	2010	2020	2030	2040	2050	2060
Quantity (ac-ft/yr)	0	201	1,725	1,909	2,133	2,414
Unit Cost (\$/kgal)	\$0.00	\$0.49	\$0.49	\$0.49	\$0.49	\$0.49

Residential Customer Water Audit



- Purposes
 - Educate customers on water-conserving habits
 - Install water-efficient showerheads and faucet aerators if necessary
 - Identify (and possibly repair) leaks
 - Review current irrigation schedule, inspect irrigation system operation and recommend repairs/changes
- Estimated Region C potential water savings and costs:
 - 2.4 gal/audited MF unit/day and 4.6 gal/audited SF unit/day for replacement of leaking toilet flappers
 - 10 percent of irrigation water usage for SF units with automatic irrigation systems
 - 15 percent of irrigation water usage for MF units with automatic irrigation systems
 - Audit 1% of SF and MF units per year
 - Audit cost \$102 (includes labor, marketing, materials, overhead).

Item	2010	2020	2030	2040	2050	2060
Quantity (ac-ft/yr)	264	1,634	1,980	2,295	2,630	3,000
Unit Cost (\$/kgal)	\$6.27	\$5.79	\$5.52	\$5.36	\$5.26	\$5.23

Landscape Irrigation Systems Rebate

- Improve efficiency of irrigation systems (residential, ICI)
- Estimated Region C potential water savings and costs:
 - 5 percent of irrigation water use for customers that participate in the rebate program
 - 1% of SF, MF, and ICI customers rebated each year
 - Cost \$100 per rebate (including rebate, marketing, overhead)
 - Possible overlap with savings from water waste prohibition
 - Assumed number of automatic irrigation systems
 - Costs underestimated because the number of ICI connections is not known for some WUGs



Item	2010	2020	2030	2040	2050	2060
Quantity (ac-ft/yr)	88	1,052	1,339	1,588	1,850	2,150
Unit Cost (\$/kgal)	\$11.78	\$10.70	\$9.77	\$9.24	\$8.93	\$8.71

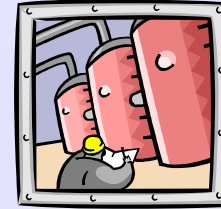
Landscape Design and Conversion Rebate



- Promote “water wise” landscaping (residential, ICI)
- Estimated potential water savings:
 - 30 percent of irrigation water use for areas where turf replaced by water wise landscaping
 - 1% of SF, MF, and ICI customers rebated each year
 - Cost \$0.24 per square foot of converted landscape (including rebate, marketing, overhead)
 - Converted area of 5,000 sq ft for SF and 10,000 sq ft for MF and ICI rebates
 - Costs underestimated because the number of ICI connections is not known for some WUGs

Item	2010	2020	2030	2040	2050	2060
Quantity (ac-ft/yr)	29	324	377	422	471	528
Unit Cost (\$/kgal)	\$11.94	\$11.72	\$11.71	\$11.74	\$11.84	\$11.98

ICI General Rebate

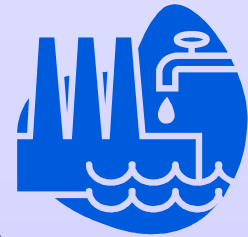


- Rebates for large-scale improvements in efficient ICI water usage
- Estimated Region C potential water savings and costs:
 - 3 percent of overall ICI water use
 - \$2.30 per gallon per day of water savings (including rebate, marketing, overhead)
 - No savings estimated if ICI water use unknown
 - ICI water use reported for WUGs comprising 85% of 2060 municipal water demand

Item	2010	2020	2030	2040	2050	2060
Quantity (ac-ft/yr)	0	1,044	12,013	17,575	19,398	22,118
Unit Cost (\$/kgal)	\$0.00	\$0.42	\$0.42	\$0.42	\$0.42	\$0.42

ICI Water Audit, Water Waste Reduction, and Site-Specific Water Conservation

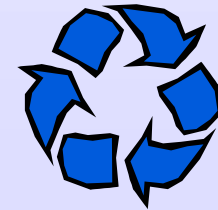
- Purposes
 - Audit water use at specific site
 - Recommend site-specific improvements to reduce water use
- Estimated potential water savings:
 - 15 percent of ICI water use for audited customers
 - 0.5% of ICI customers audited each year
 - Cost \$575 per audit (including labor, marketing, overhead)
 - No savings estimated if ICI water use unknown
 - ICI water use reported for WUGs comprising 85% of 2060 municipal water demand



Item	2010	2020	2030	2040	2050	2060
Quantity (ac-ft/yr)	0	395	4,546	8,680	9,554	10,799
Unit Cost (\$/kgal)	\$0.00	\$0.63	\$0.64	\$0.66	\$0.68	\$0.69

Reuse of Reclaimed Water

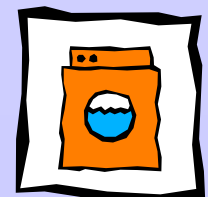
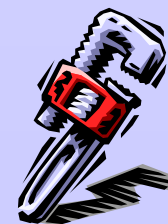
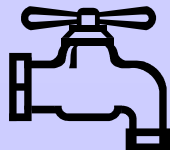
- Reduce need for potable or raw water
- Evaluate for WUGs and WWPs with:
 - Permitted wastewater treatment capacity > 1 MGD
- Estimated Region C potential water savings and costs:
 - Currently available supplies
 - Proposed supplies from 2001 Region C Water Plan
 - NTMWD East Fork Reuse Project
 - Does not include other proposed projects or existing water rights applications that were not in the 2001 Region C Water Plan



Item	2010	2020	2030	2040	2050	2060
Quantity (ac-ft/yr)	225,796	316,604	343,819	427,217	434,290	486,751
Unit Cost (\$/kgal)	?	?	?	?	?	?

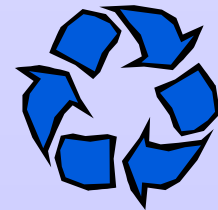
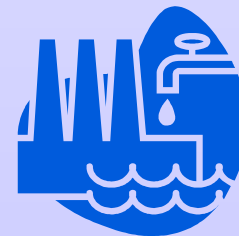
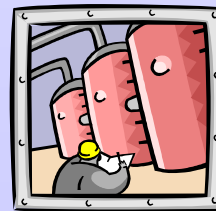
Basic Conservation Package

- Implement plumbing code (automatic)
- Public and school education
- Impact of increasing water prices (automatic)
- Water system audit, leak detection and repair, pressure control
- Implement federal residential clothes washer standards (automatic)



Expanded Conservation Package

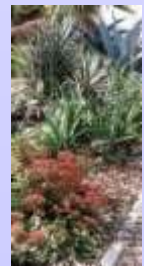
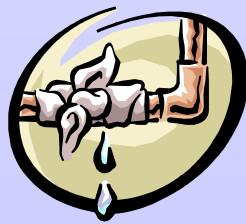
- Water conservation pricing structure
- Water waste prohibition
- Coin-op clothes washer rebate
- ICI general rebate
- ICI water audit, etc.
- Reuse



- Some of these might not be appropriate for a given WUG

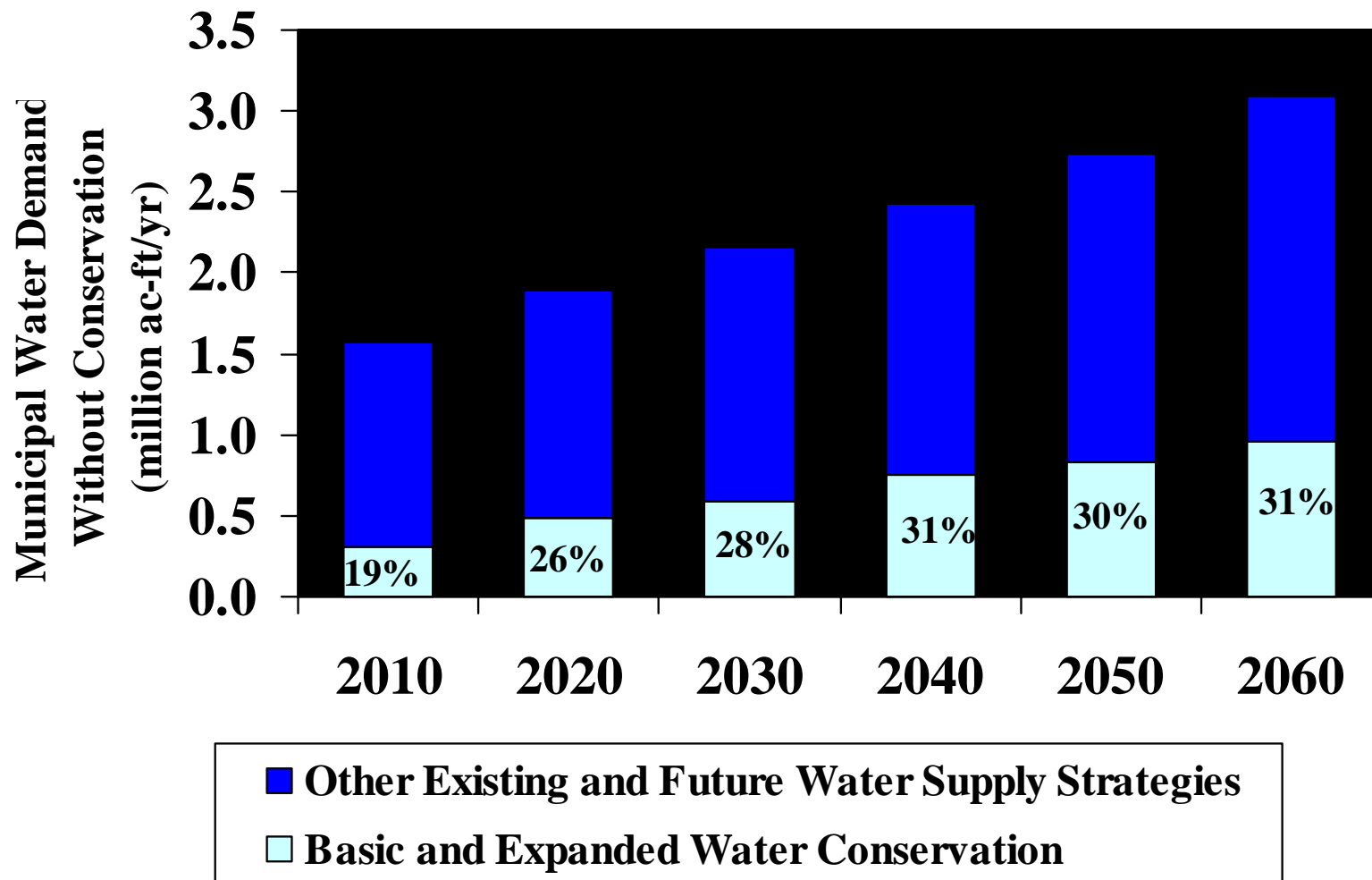
Less Cost-Effective Strategies

- Showerhead and faucet aerators retrofit
- Residential customer water audit
- Water-efficient toilet rebate
- SF water-efficient clothes washer rebate
- Landscape irrigation systems rebate
- Landscape design and conversion rebate

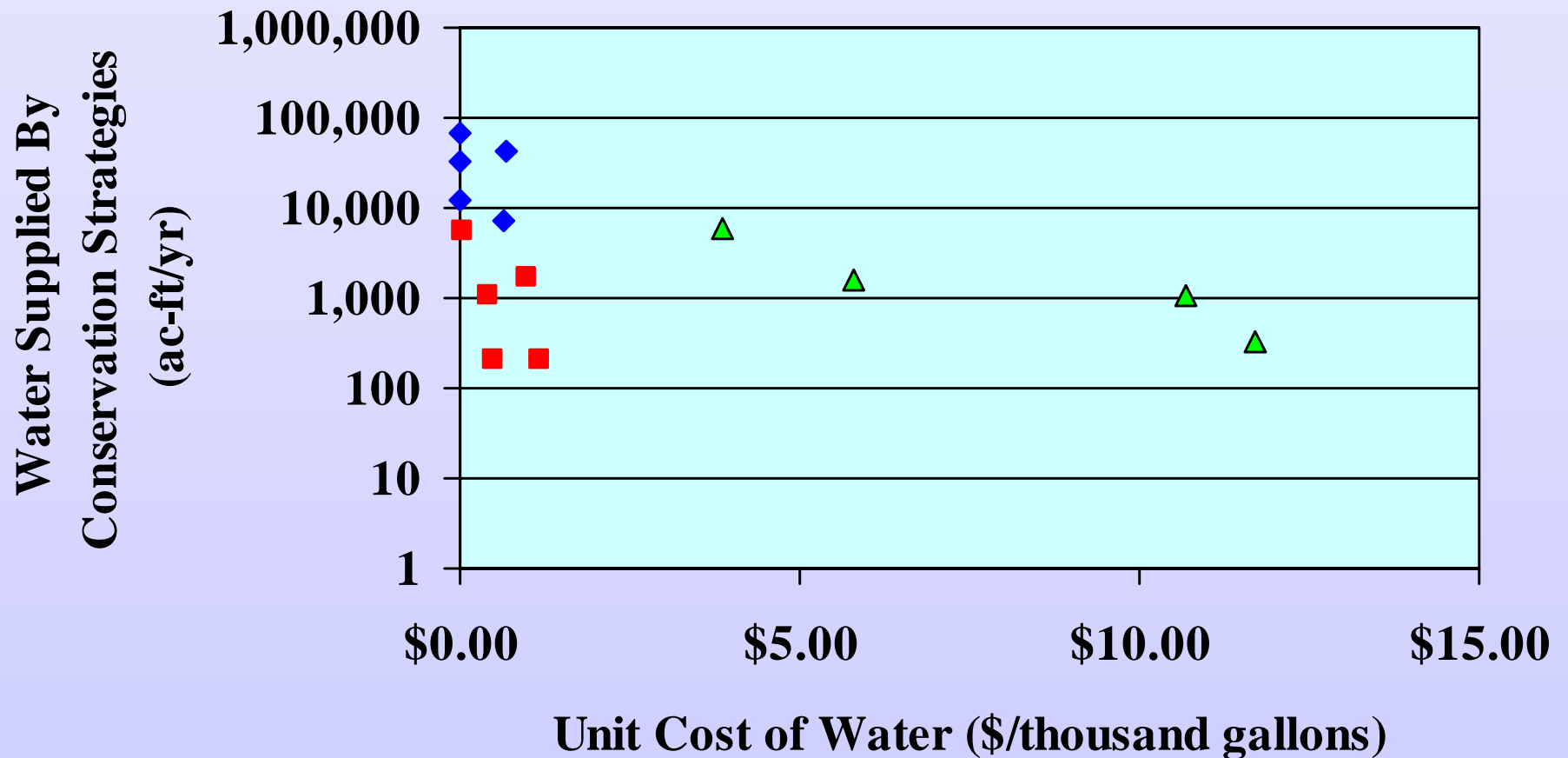


- Some of these may be appropriate for a given WUG

Potential Region C Municipal Water Conservation

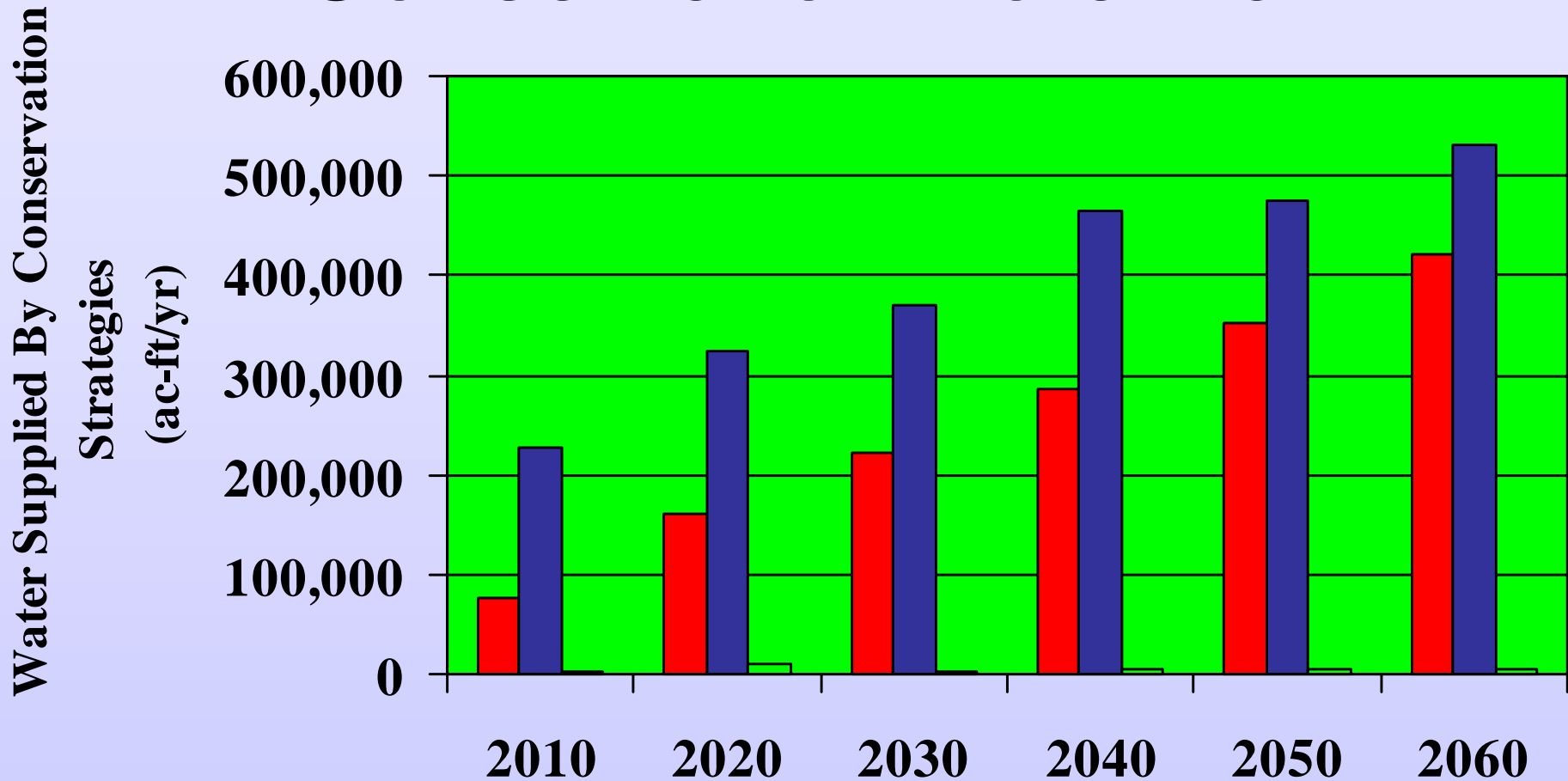


2020 Conservation Potential



- ◆ Basic Conservation Package
- Extended Conservation Package
- ▲ Less Cost-Effective Conservation Package

Conservation Potential



- Basic Conservation Package
- Extended Conservation Package
- Less Cost-Effective Conservation Package

Conservation Potential

- During planning period:
 - Basic and extended conservation packages (except reuse)
 - 14.1 million acre-feet of water
 - Sum of annual costs is \$834 million
 - Reuse
 - 18.8 million acre-feet of water
 - Have not yet calculated costs

Discussion Item

Reserve Water Supplies

Reserve Water Supplies

- Projected regional need of 1.9 million ac-ft/yr
- Many entities have projected needs in the next 10 – 20 years
- Rapid growth in region (greater than projected in 2001 plan)
- Other concerns – future supplies
 - Drought worse than historical
 - Delays in development of new supplies
 - More rapid growth than projected

Reserve Water Supplies

- Recommend that Region C include reserve supply beyond projected demands
 - 10% above demands for major providers
 - 20% above demands for smaller entities
- Applies only to municipal and manufacturing water users

Discussion Item

Media Updates

Fall 2004 Newsletter

Contents

- Summary of potentially feasible water management strategies discussed at recent meetings
- Synopsis of Neighborhood Conservation Study findings
- Overview of Water Conservation Taskforce
- Conservation Tips
- Updated timeline and key planning dates
- Information on upcoming RCWPG meetings
- List of RCWPG members

Distributed on Friday, October 29, 2004

- Also added to Region C website
- Extra copies of newsletter are available

Media Update

- Distributed media advisory in November announcing December 6 public hearing and RCWPG meeting
- Terese Arena with KLIF 570 AM interviewed Bob Johnson in late October on station's public affairs show
 - Show aired on KLIF, KTCK 1310 AM (The Ticket), KDBN 93.3 FM (The Bone) and 99.5 FM (The Wolf) the weekend of November 6-7
 - Bob addressed overall regional water planning effort and primary water management strategies under consideration
- Jim Getz from *The Dallas Morning News* interviewed Jim Parks about regional water planning efforts, East Fork reuse project and other water topics; Cooksey provided update media kit, per reporter's request

Discussion Item

Summary of Speaker
Comments to RCWPG
October 4, 2004 Meeting

Summary of Speaker Comments-October 4 Meeting

- Summary of speaker comments were posted on the Region C web site in advance of today's meeting
- www.regioncwater.org

Discussion Item

Update of Overall Status &
Next Steps

Update on Overall Status and Next Steps

- Cost Memorandum
 - TWDB guidelines state costs should be second quarter 2002 prices
 - Significant increase in steel prices since 2002
 - TWDB agrees prices should reflect recent material increases
 - Consultant Recommendation
 - Increase unit costs for large pipe and WTP
 - Other changes:
 - Increased urban ROW costs based on recent data
 - Adjusted RO treatment costs for groundwater
 - Project-specific costs will be used if available

Update on Overall Status and Next Steps

- Finalize Needs Analysis
- Strategy Evaluation for each WUG & WWP
 - Infrastructure Cost
 - Strategy Impacts
 - Recommendations
- Model Conservation Plans
- Policy Recommendations

Agenda

- Other Discussion
 - Update from the Chair
 - Report from Regional Liaisons
 - Report from TWDB
 - Confirm Date & Location of Next Meeting
 - Other Discussion
 - Acknowledgement of Guests/Comments

**Thank you
for coming**

**Materials are available at
www.regioncwater.org**