

Memorandum




DATE February 20, 2009

TO Members of the Transportation & Environment Committee
Chair Linda Koop; Vice Chair Sheffie Kadane; Jerry R. Allen; Carolyn R. Davis;
Vonciel Jones Hill; Angela Hunt; Pauline Medrano; Ron Natinsky

SUBJECT Water Conservation and Drought Plan Update – Dallas Water Utilities

Attached is a briefing that will be presented on February 23, 2009 regarding a contract to update Dallas' water conservation and drought management plans. Approval for this item is scheduled for the February 25, 2009 agenda (item #67).

Please let me know if you have any questions or need additional information.



Ramon F. Miguez, P.E.
Assistant City Manager

Attachment

c: The Honorable Mayor and Members of the City Council
Mary K. Suhm, City Manager
Thomas P. Perkins, Jr., City Attorney
Deborah Watkins, City Secretary
Craig Kinton, City Auditor
Judge C. Victor Lander, Judiciary
Ryan S. Evans, First Assistant City Manager
Jill A. Jordan, P.E., Assistant City Manager
A.C. Gonzalez, Assistant City Manager
Forest Turner, Interim Assistant City Manager
David Cook, Chief Financial Officer
Jeanne Chipperfield, Director, Budget and Management Services
Edward Scott, Director, Controller's Office
Helena Stevens-Thompson, Assistant to the City Manager – Council Office
Jody Puckett, P.E., Director, Water Utilities Department

Water Conservation & Drought Plan Update

Presented to Transportation & Environment Committee
February 23, 2009



Briefing Purpose

- Seek committee support for the award of a professional services contract on the February 25th Council agenda to assist city in updating three plans:
 - 2005 Five-year Strategic Plan on Water Conservation
 - State mandated 2005 Water Conservation Plan
 - State mandated 2005 Drought Contingency Plan

About The Three Plans

Five-year Strategic Plan on Water Conservation	Water Conservation Plan (State Mandated)	Drought Contingency Plan (State Mandated)
<ul style="list-style-type: none"> ❑ City's long-term planning tool to help curb water waste and improve water efficiency management ❑ Serves as foundation for state mandated water conservation plan ❑ Strategies include projected long-term water savings, reductions in gallons per capita usage, program costs, and implementation schedules 	<ul style="list-style-type: none"> ❑ Retail public water suppliers providing water service to 3,300 or more connections must submit a conservation plan to the Texas Commission on Environmental Quality (TCEQ) no later than May 1, 2009, and every five years after that date to coincide with the regional water planning process (last plan submitted April 2005) ❑ Must include five and ten year targets for water savings 	<ul style="list-style-type: none"> ❑ Used to manage Dallas' water resources during drought and other emergency conditions ❑ Must be submitted by all water utilities to the TCEQ every five years (last plan submitted April 2005) ❑ Must fulfill certain requirements to include: <ul style="list-style-type: none"> ■ Drought condition triggers ■ Drought response stages ■ Numerical targets for water use reductions

Five Year Strategic Plan Goal

- Goal to achieve a 1% reduction per year in gallons per capita per day over five years by:
 - Reducing seasonal peak demands;
 - Reducing water loss;
- **While:**
 - Maintaining quality of life; and
 - Allowing for continued growth and economic development

Five-year Strategic Plan Approach

- City Leadership & Commitment
 - “Lead by example” by reducing the amount of water consumed by City operations
- Enhanced Education & Outreach
 - Impact customer attitudes and behaviors through public education efforts
- Rebate & Incentive Programs
 - Motivate customers to replace and/or retrofit high water use fixtures and devices

The Need for Aggressive Water Conservation

- Integral part of Dallas' long-range water supply strategy
 - Operational tool used to reduce peak requirements
 - Delays the need to develop expensive future water supplies
 - Lowers capital and operating costs of existing system
 - Required by state law
 - Required to protect current water rights and to secure future water rights

Water Conservation & Drought Planning Background

□ Recent Council Actions

■ 2001

- Amended water ordinance to include mandatory watering restrictions

■ 2002

- Approved funding for on-going water conservation public awareness campaign efforts

■ 2005

- Adopted inaugural Five-year Strategic Plan on Water Conservation to include funding for rebate & incentive programs
- Adopted updates to 1999 state mandated Water Conservation & Drought Contingency Plans

■ 2006

- Revised ordinance to expand mandatory watering restrictions from April 1-October 31

Program Milestones

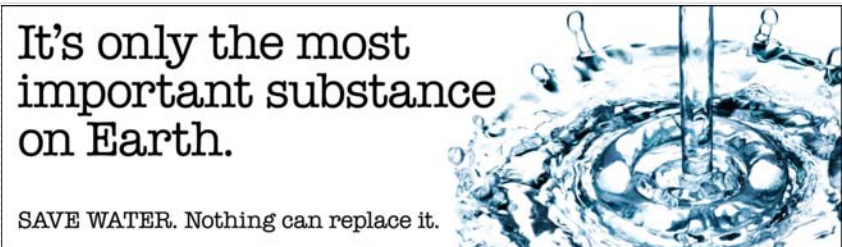
Special Events & Promotions

- Annual Water Wise Awards & Tour of Homes
- Semi-Annual Water Wise Seminars



Public Awareness Campaign

- Significant resources allocated to media campaign
 - \$1.2 million annually
- In 2007, formed partnership with Tarrant Regional Water District
 - “Save Water” message expanded beyond Dallas’ borders
 - Dallas will leverage additional \$750,000 in 2009 media exposure as result of partnership



Environmental Education Initiative

- Collaborative effort with Department of Sanitation
 - Program includes grades K-12
 - Over 15,000 students have participated
 - Over 400 teachers participated in staff development program



Water Conservation Mascot "DEW"

- Received 2007 Water Mark Award from Texas American Water Works Association & Water Environment Federation for video "DEW Helps Kids Save Water"
- Spot aired on Nickelodeon and the Cartoon Network in Summer 2007
- DEW has his own MYSpace page and FaceBook



Free Irrigation System Inspections



- 2 Licensed Irrigators on Staff
 - Over 200 inspections performed since 2007
 - Serve residential and commercial customers
 - Work with city departments on proper maintenance and operation of city irrigation systems
 - **Efforts have saved 58.6 million gallons annually**

Minor Plumbing Repair Program



- Program helps low-income/elderly customers
- Over 4,100 fixtures replaced since 2005
- **Estimated water savings 8.9 million gallons annually**

New Throne for Your Home Program

- Toilet voucher program launched in June 2007
- Over 7,100 toilets replaced as of January 2009
- **Estimated water savings 32.8 million gallons annually**



I Have A New Throne For My Home!

Toilets use the most water indoors, consuming up to 7,200 gallons of water per person each year. New technologies have greatly improved the performance of low-flow toilets. Installing one in your home can save 4,320 gallons of water per person each year.

Give your bathroom the royal treatment. If you are a Dallas Water Utilities customer you may qualify for a \$90 voucher through our Throne for Your Home Toilet Voucher Program, (up to two vouchers per household) towards the purchase of a low-flow or ultra low-flow toilet. Visit www.SaveDallasWater.com to print out an application for your voucher and mail it in today!

IT'S ALL IN A DROP!
WWW.SAVEDALLASWATER.COM

Industrial/Commercial Institutional Outreach Efforts



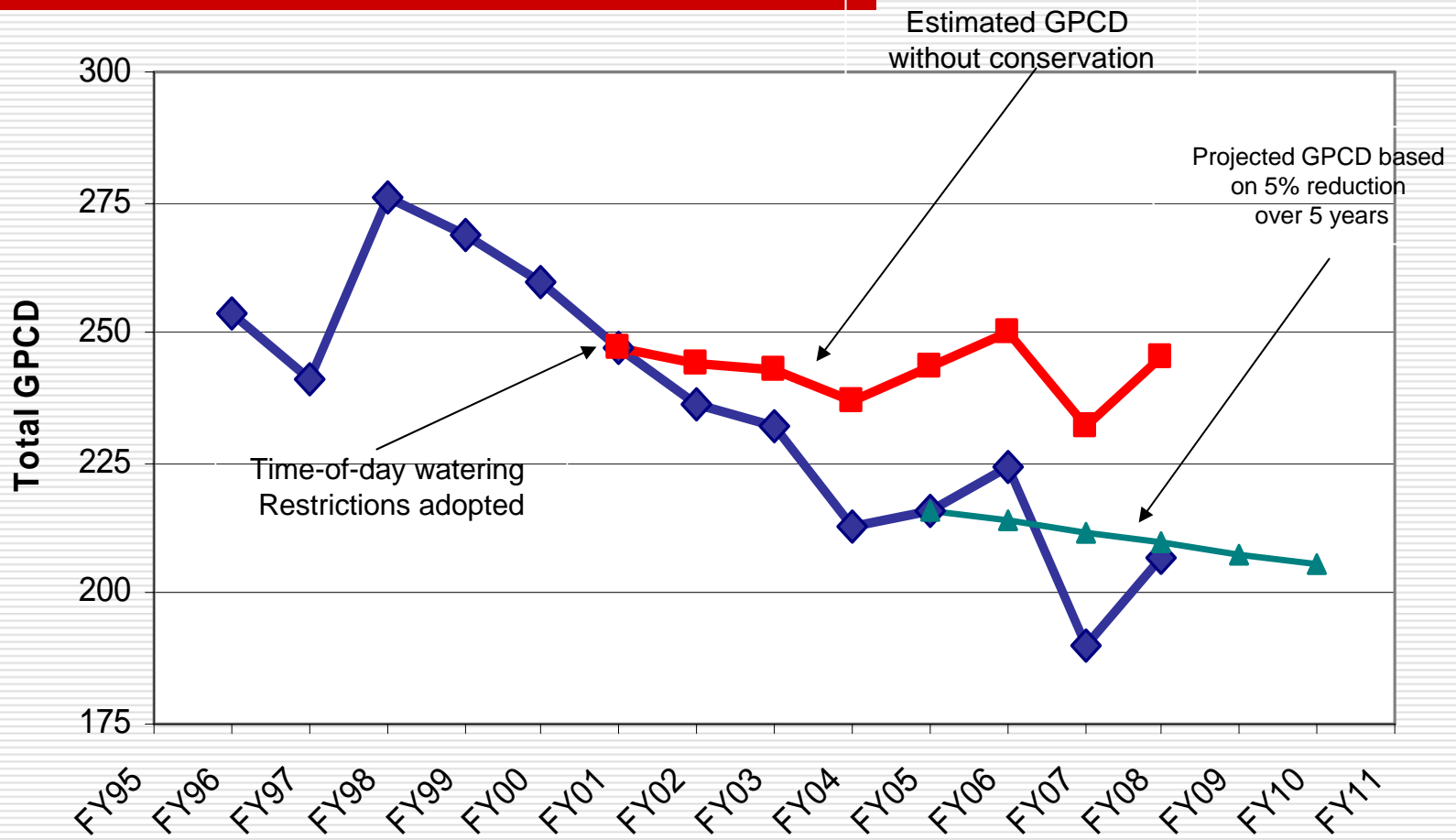
- Cooling Tower Audits
 - Program launched in March 2007
 - 60 audits performed
 - **Projected water savings 261.8 million gallons annually if recommendations implemented**

“Spray to Save” Restaurant Program

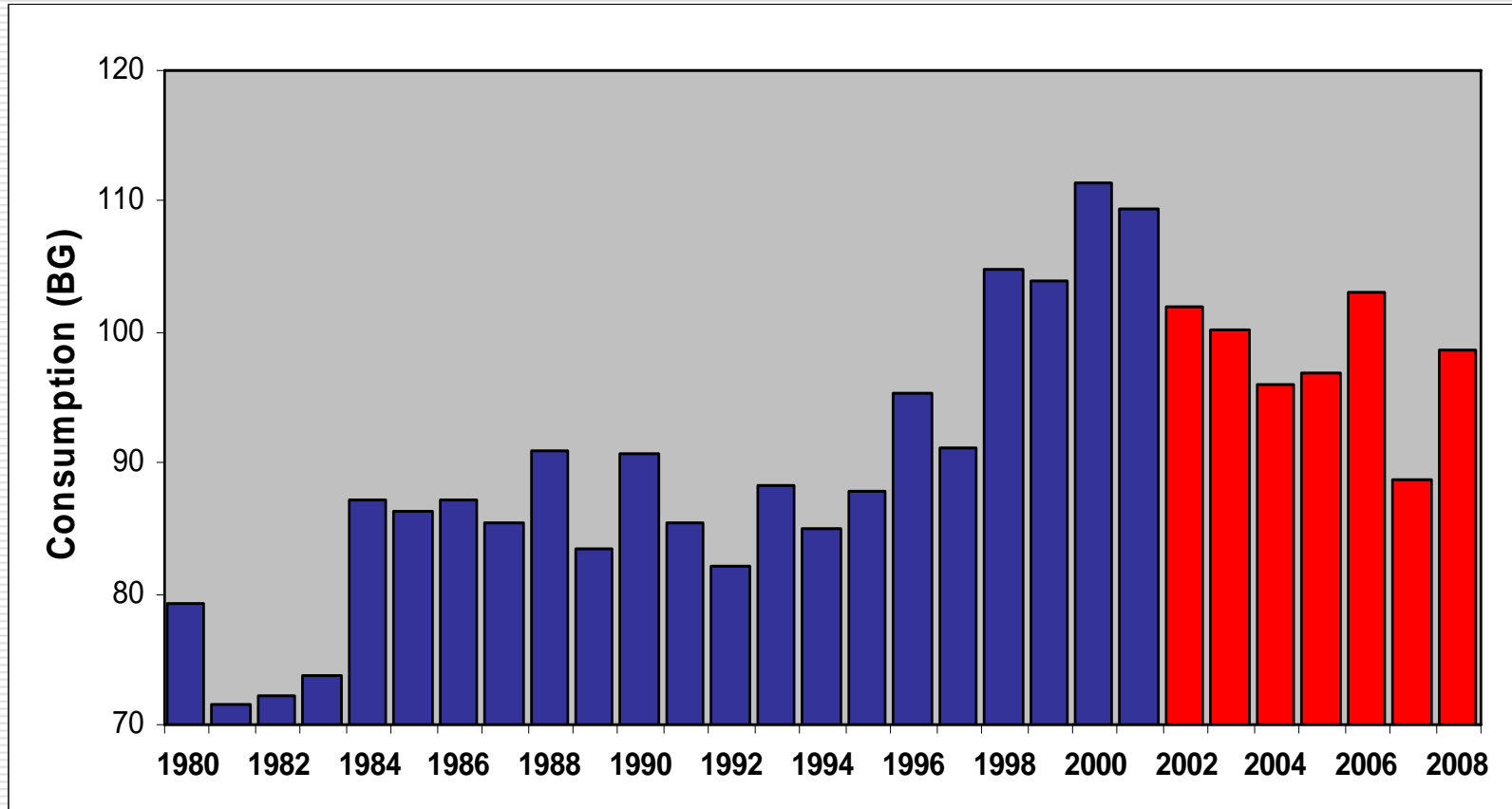
- Pre-rinse spray nozzle program launched in November 2007
 - Over 1,200 participating restaurants
 - 2,977 devices replaced
 - **Estimated water savings 164.9 million gallons annually**



Gallons Per Capita Trends



Dallas Water Utilities Estimated Water Savings



Water Savings

FY	Actual Consumption (BG)	Estimated Consumption (BG)	Conservation Water Savings (BG)
2002	101.9	107.8	5.8
2003	100.2	107.4	7.2
2004	96.0	105.0	8.9
2005	96.9	109.5	12.6
2006	103.0	115.1	12.1
2007	88.7	108.4	19.7
2008	98.7	116.4	17.7
Total	685.5	769.5	83.9

Timing

- Five-year Strategic Plan
 - Current plan covers the period from 2005-2010
 - Action now will ensure comprehensive plan in place for 2010-2014 to continue program momentum
- State mandated Water Conservation Plan
 - Existing Plan to be submitted to the TCEQ no later than May 1, 2009
 - State allowed only four years between revisions to coincide with regional water planning group update
 - Revised Plan to be completed and submitted for inclusion in Region C 2011 Plan
- Drought Contingency Plan
 - Next plan due to State no later than May 2010

Proposed Contract

- Consultant chosen through selection process
- Proposed contract amount \$609,400
- Sub-consultants to receive 55% of contract
 - Asian Firm-33%
 - Woman-owned Business- 15%
 - African American Firm- 7%

Next Steps

- Council contract award on February 25 agenda
- Submit current Water Conservation Plan to meet State's May 1, 2009 deadline
- Work with consultant to prepare comprehensive update to Drought Contingency Plan and submit no later than May 1, 2010
- Work with consultant to prepare comprehensive update to Five-year Strategic Plan for 2010-2014 planning horizon
 - Planned completion date for Strategic Plan is March 2010
- Use updated Five-year Strategic Plan as foundation for Water Conservation Plan to be included in 2011 Region C Water Plan

Summary

- ❑ Water Conservation program plays an integral role in city's long range water supply strategy
- ❑ Updating comprehensive conservation and drought plans to meet State requirements, build on program success, and coincide with regional water planning group efforts
- ❑ Seeking council support for February 25th agenda item #67 to update conservation and drought contingency plans

APPENDIX

- Drought Map
- Dallas Lake Levels

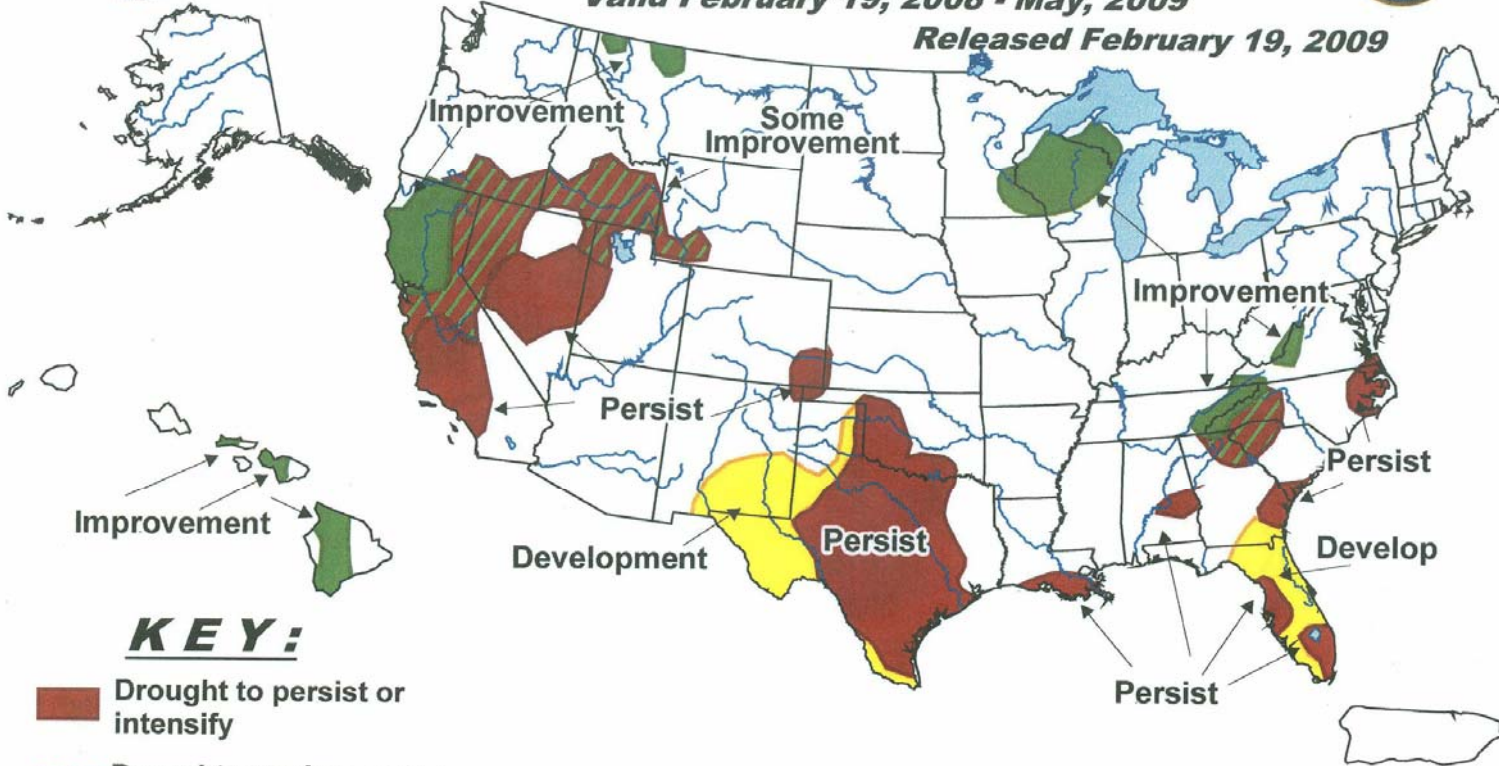


U.S. Seasonal Drought Outlook

Drought Tendency During the Valid Period

Valid February 19, 2008 - May, 2009

Released February 19, 2009



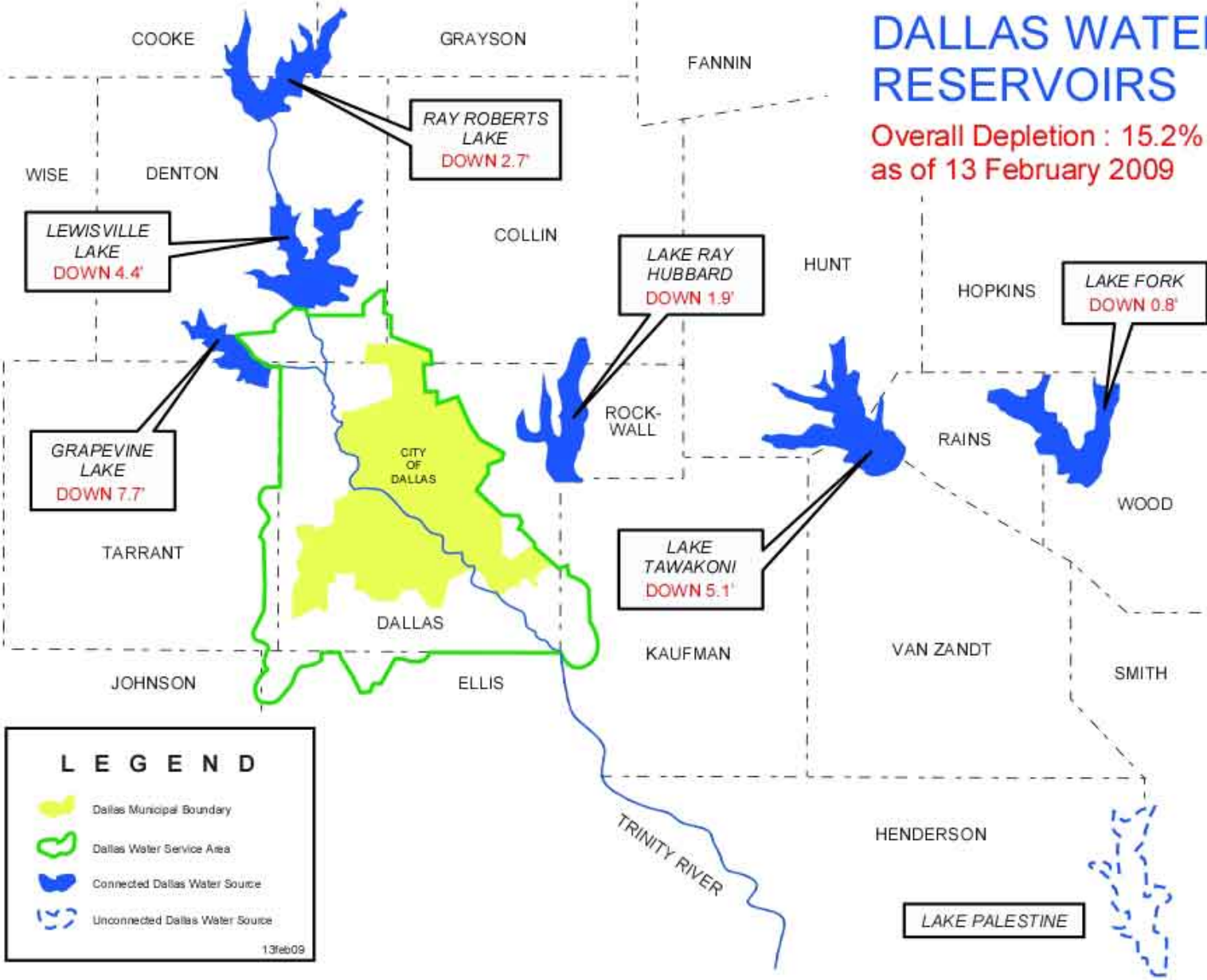
KEY:

-  Drought to persist or intensify
-  Drought ongoing, some improvement
-  Drought likely to improve, impacts ease
-  Drought development likely

Depicts large-scale trends based on subjectively derived probabilities guided by short- and long-range statistical and dynamical forecasts. Short-term events -- such as individual storms -- cannot be accurately forecast more than a few days in advance. Use caution for applications -- such as crops -- that can be affected by such events. "Ongoing" drought areas are approximated from the Drought Monitor (D1 to D4 intensity). For weekly drought updates, see the latest U.S. Drought Monitor. NOTE: the green improvement areas imply at least a 1-category improvement in the Drought Monitor intensity levels, but do not necessarily imply drought elimination.

DALLAS WATER RESERVOIRS

Overall Depletion : 15.2%
as of 13 February 2009



LEGEND

- Dallas Municipal Boundary
- Dallas Water Service Area
- Connected Dallas Water Source
- Unconnected Dallas Water Source

13Feb09