



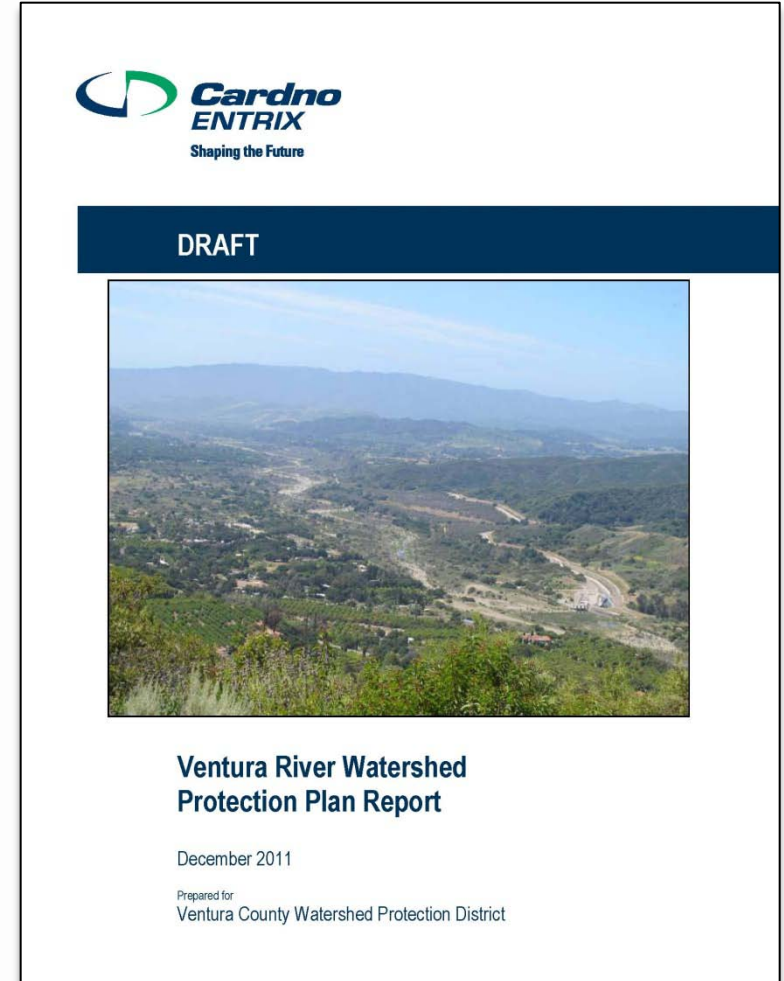
People | Clients | Growth | Quality | Performance

# Ventura River Watershed Protection Plan Report

Ventura River Watershed Council  
December 13, 2011

# Presentation Outline

- Overview of Draft Report
- Next Steps
- Questions & Comments



# Consultant Staff

- Mark Horne
- Lorraine Woodman, PhD
- Laura Riege

# Report Outline

1. Introduction
2. Watershed Characteristics
3. Summary of V-1 Projects
4. Water Demand and Water Budget
5. Lessons from Other Watershed Plans
6. Data Gaps
7. Best Management Practices
8. Recommended Actions

# Watershed Characteristics

- 2.1 Meteorology/Climate
- 2.2 Land Use and Land Cover
- 2.3 Watershed Topographic Characteristics
- 2.4 Seismicity, Soils, and Geomorphology
- 2.5 Fire Regime
- 2.6 Hydrology
- 2.7 Surface Water Quality
- 2.8 Groundwater Quality
- 2.9 Water Management

# Summary of V-1 Projects

- 3.1 Ventura River Watershed Hydrology Model
- 3.2 Surface Water Quality Monitoring Program
- 3.3 Ojai Basin Groundwater Monitoring Plan
- 3.4 Upper and Lower Ventura River Basin Budget and Approach to a Groundwater Management Plan
- 3.5 Upper San Antonio Creek Watershed Giant Reed Removal Project

# Water Demand & Water Budget

## 4.1 Water Demand

- Municipal & Industrial
- Agricultural
- Total Demand

## 4.2 Water Budget

## 4.3 Safe Yield

# M&I (or Urban) Demand

Source/Location	Amount (AF)	Note
Casitas Municipal Water District	9,674	Metered
Golden State Water Company	1,741	Metered
City of Ventura	2,507	Metered (Pro-rated)
Upper & Lower Ventura Basins	8,657	Metered / Modeled
Upper Ojai Basin	11	Single Report
Total	22,591	



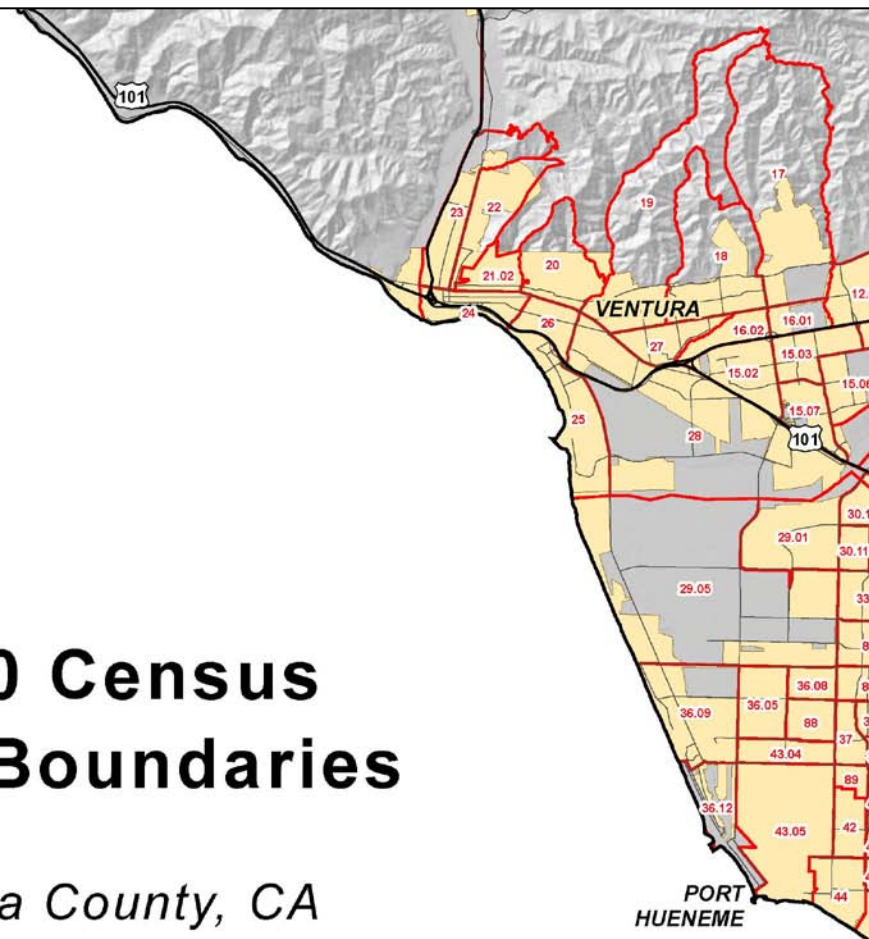
# Ventura City Water in the Watershed

## 2010 Census Tract Boundaries

*Ventura County, CA*

-  Census Tracts
-  Cities
-  Freeways & Highways
-  Major Roads

Source: 2010 U.S. Census Bureau



# Agricultural Demand

Source/Location	Amount (AF)	Note
Casitas Municipal Water District	6,398	Metered
Golden State Water Company	0	
City of Ventura	0	
Upper and Lower Ventura Basins	2,420	Estimated
Ojai Basin	3,229	Reported
Upper Ojai Basin	-	Not Reported
Total	12,047	

# Total Demand

Source/Location	M&I (AF)	Agricultural (AF)
Casitas Municipal Water District	9,674	6,398
Golden State Water Company	1,741	0
City of Ventura	2,507	0
Upper & Lower Ventura Basins	8,657	2,420
Ojai Basin	0	3,229
Upper Ojai Basin	11	-
Subtotals	22,591	12,047
Total Demand	34,638	

# Water Budget

- Sum of all inflows and outflows
- Surface water and groundwater
- Water budget was developed for HSPF model

# Availability of Water Budget Data

Inflows			
Surface Water		Groundwater	
Total Precipitation		Inflow from Precipitation	
Surface Runoff		Inflow from Irrigation	
M&I Return Flow		Inflow from Rivers, Lakes & Septics	
Groundwater Accretions		Surface Water Accretions	
Outflows			
Agricultural Diversions		Agricultural Pumping	
M&I Diversions		M&I Pumping	
Evapotranspiration		Evapotranspiration-Riparian	
Outflow to Ocean		Outflow to Ocean	
		Outflow to Surface Water	

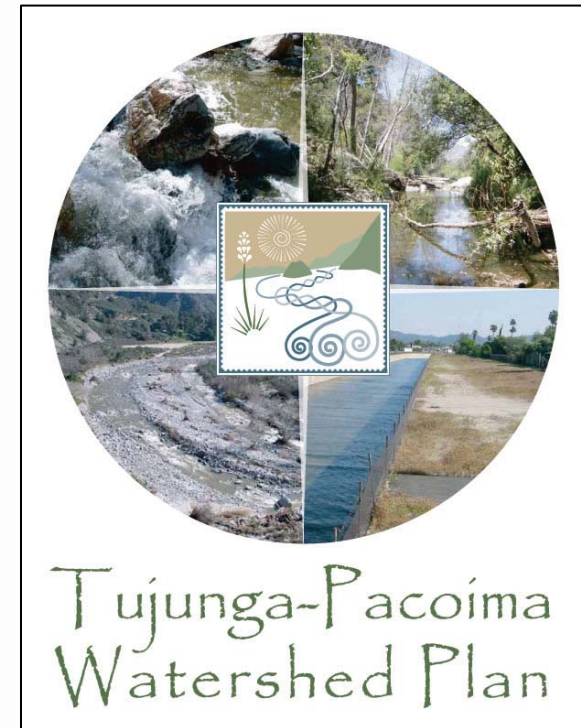
# Other Watershed Plans

## 5.1 Identification of Applicable Plans

## 5.2 Review of Plans

- Ballona Creek
- Tujunga-Pacoima
- Calleguas Creek

## 5.3 Lessons Learned



# Lessons Learned

- Identify the audience
- Keep stakeholders engaged
- State clear goals and objectives
- Know which issues are not being addressed
- Provide guidance for policy recommendations
- Work with regulatory programs
- Define a clear process for project prioritization
- Identify how to measure plan implementation

# Data Gaps & Recommendations

## 5.1 HSPF (Runoff) Model

- Improved surface water data
- Model enhancements
- Groundwater model, linked to surface model

## 5.2 Groundwater Budget

- Model & improved groundwater data

## 5.3 Other Data Gaps

- Agricultural pumping
- Groundwater: Ojai and Upper Ojai
- Habitat: Aquatic and Terrestrial



# Applicable BMPs

## 5.1 Water Quality

- Stormwater Technical Guidance Manual

## 5.2 Water Supply

- CA Urban Water Conservation Council

## 5.3 Habitat

- Land Use Policies
- Site Planning
- Los Padres Forest Management Plan
- Construction and Maintenance Activities in Riverine and Riparian Areas
- Steelhead Recovery Plan Guidance

# Recommended Actions\*

8.1 Watershed Management Plan

8.2 Stakeholder Involvement

8.3 Watershed Coordinator

8.4 Data Gaps

- Groundwater Model

8.5 Groundwater Management Plan

8.6 Water Budget

\* To improve Water Sustainability & Ecosystem Functions

# Recommended Actions

## 8.2 Stakeholder Involvement

- Continue Watershed Council meetings
- Upgrade and maintain webpage
- Publicize “watershed-friendly” events

# Recommended Actions

## 8.3 Watershed Coordinator

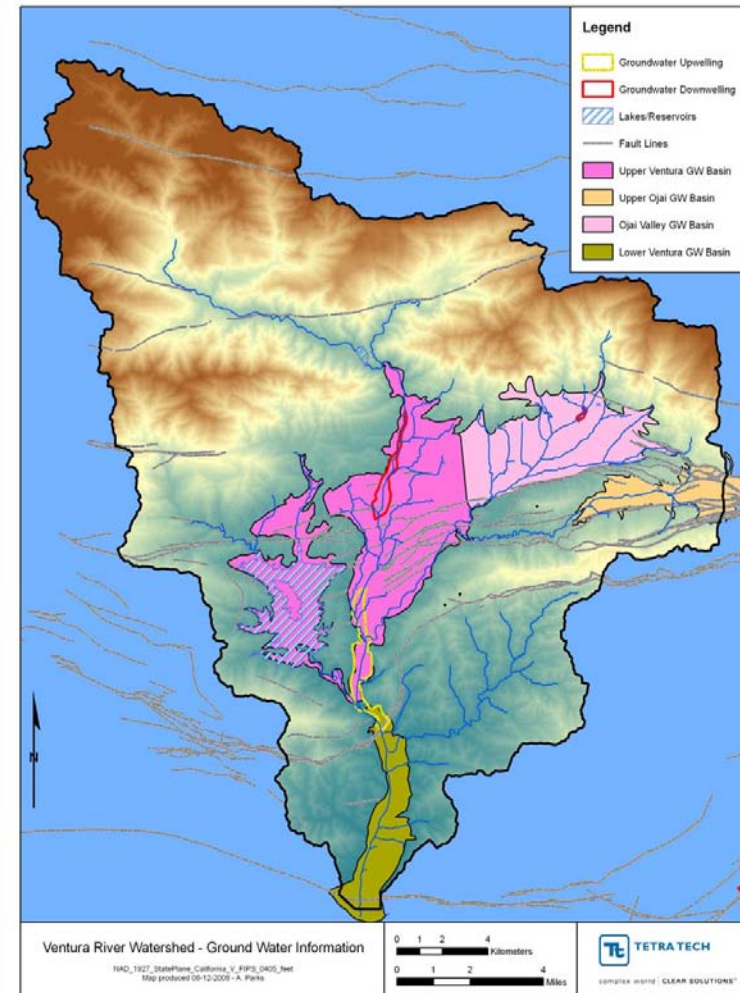
- Secure future funding
- Maintain watershed focus?



# Recommended Actions

## 8.5 Ventura River Groundwater Management Plan

- VRWC should discuss DBS&A recommendations, including pros and cons of “sponsoring” the management plan



# Recommended Actions

## 8.6 Water Budget

- Technical advisory group should develop a scope of work, including an improved estimate of Water Demand

# Next Steps

- Receipt of Written Comments:  
ASAP, but no later than January 13<sup>th</sup>  
Email to: [mark.horne@cardno.com](mailto:mark.horne@cardno.com)
- Final Report: January 20<sup>th</sup>

# Questions or Comments?

