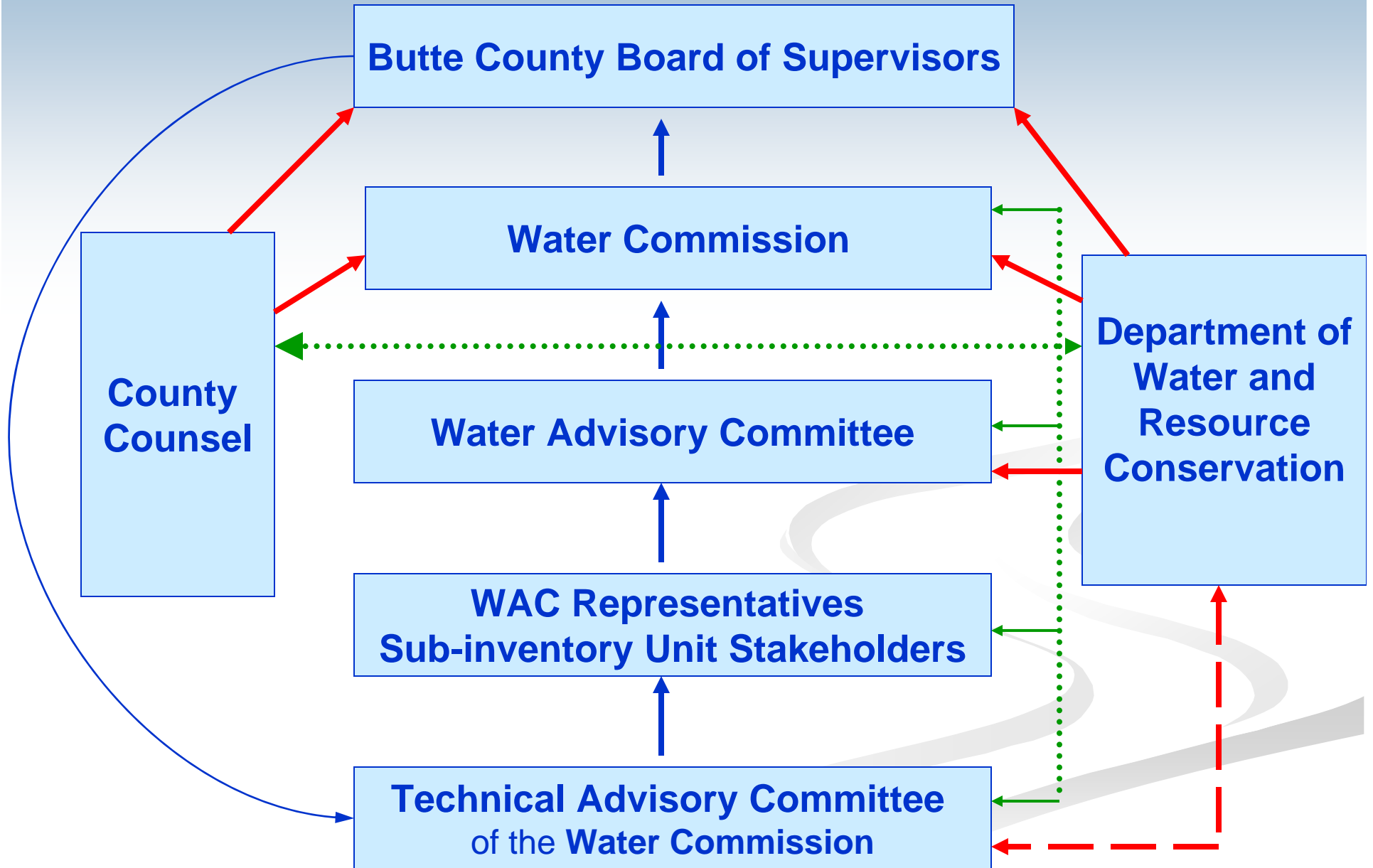


Water Advisory Committee - “101”

**Butte County WAC meeting
September 27, 2007**

A decorative graphic consisting of several overlapping, wavy, light gray lines that flow from the bottom left towards the top right, positioned behind the text.

BMO Organizational Structure



Chapter 33A

Please refer to your copy of Chapter 33A of the Butte County Code.

www.buttecounty.net/waterandresource/BMO/BMOordfinal.pdf

WAC Responsibilities

- Drafting of annual BMO document to be submitted to the Board of Supervisors by the first April meeting each year.
 - Reps will work with stakeholders to draft a BMO that does not adversely impact any neighboring sub-inventory units.
- Review of groundwater level, water quality and land subsidence measurements as related to established BMOs with Technical Advisory Committee.

Technical Advisory Committee Expertise

**Agricultural Best Management
Practices**

Agricultural Production

Agricultural Water Quality

Agricultural Water Supply

Dams and Dam Safety

Environmental Issues

Geology

Groundwater Modeling

Groundwater Monitoring

Hydro Geology

Hydroelectric Power

Irrigation Technology

Land Subsidence

**Monitoring Well Design
and Installation**

Municipal Water Quality

Municipal Water Supply

Pesticide Use

Surface Water Modeling

Surface Water Monitoring

USDA Programs

Water Rights

Water Wells

Watershed Issues

WAC Bylaws

Please refer to your copy of the Butte County Water Advisory Committee Bylaws.

www.buttecounty.net/waterandresource/by-laws.htm

WAC Sub-inventory Representation

Please refer to your copy of the Staff Report dated June 14, 2007.

www.buttecounty.net/waterandresource/by-laws.htm

What is a "water year"?

Water agencies such as the Department of Water Resources (DWR) or the U.S. Geological Survey (USGS) often report hydrologic data on a water year basis. The water year extends from **October 1st** through **September 30th**.

**"Water year 2007" means
October 1, 2006 through September 30, 2007**

Rainfall Comparisons

The National Weather Service records annual rainfall from **July 1 to June 30.**

Having just completed the 2006-2007 year, most of California had significantly below-normal precipitation.

www.climate.water.ca.gov/

Data tabulated for comparison by precipitation totals and by Water Year.

Precipitation (inches)		July 1 to June 30 Precipitation Totals								
City	Average	06-07	75-76	76-77	86-87	87-88	88-89	89-90	90-91	91-92
Eureka	39.55	36.52	33.55	17.56	27.93	32.31	34.88	26.83	25.11	21.92
Redding	37.00	22.73	22.90	20.97	21.48	30.22	33.53	29.93	22.07	28.42
San Francisco	20.26	11.66	7.73	11.05	10.74	14.34	13.77	11.87	13.47	18.21
Sacramento	18.20	12.22	7.25	7.53	12.81	15.37	15.13	19.40	14.73	16.68

Runoff (MAF)		Water Year Totals (October 1 to September 30)								
Index	Average	06-07	75-76	76-77	86-87	87-88	88-89	89-90	90-91	91-92
Sacramento Valley Index	8.33	6.2*	5.29	3.11	5.86	4.65	6.13	4.81	4.21	4.06
San Joaquin Valley Index	3.29	2.0*	1.57	0.84	1.86	1.48	1.96	1.51	1.96	1.56

www.climate.water.ca.gov/docs/Drought_Comparison_Table.pdf

What differentiates a normal rainfall year from a dry year?

On average, 75% of California's annual precipitation occurs between November and March, with 50% occurring between December and February.

A persistent Pacific high pressure zone over California during December through February predisposes the water year to be dry.

What was California's driest year of record?

Within California's roughly 100-year period of recorded hydrologic data, the driest single year was 1977.

Statewide runoff was only about 15 million acre-feet, representing 21% of the average annual amount.

Can we predict when the next drought will occur in California?

No. Although accurate, detailed long-term weather forecasting would be extremely valuable for many applications, this capability does not yet exist.

<http://watersupplyconditions.water.ca.gov/>

What were the largest *cutbacks* in deliveries by California's major water wholesalers during the last drought?

In 1991, the U.S. Bureau of Reclamation's (USBR) Central Valley Project (CVP) reduced **agricultural** water deliveries by **75%** and **urban** deliveries by **25%**.

DWR's State Water Project zeroed out agricultural deliveries and reduced **urban** deliveries by a minimum of **70%**.

How do droughts affect groundwater use?

In an average year, about 30% of California's urban and agricultural water supplies come from groundwater pumping. *Reliance on groundwater increases during droughts* due to the reduced availability of surface water.

Increased groundwater pumping during droughts results in increased lowering of water levels in groundwater basins. Information about changes in groundwater levels is available for sites covered by the Department's groundwater monitoring program.

<http://watersupplyconditions.water.ca.gov/questions.cfm>

Subsidence Monitoring

- Currently there are five extensometers in Butte County, with no recorded inelastic subsidence.



Sacramento Valley GPS Height Modernization Project

- DWR and participating local, state, and federal agencies plan to establish a Global Positioning System (GPS) geodetic control network in the Sacramento Valley. The Sacramento Valley GPS network will incorporate existing GPS networks and monuments to create *a regional network that covers part or all of Colusa, Sutter, Glenn, Butte, Yolo, Yuba, Tehama, and Placer Counties.*
- The contract should be finalized and work should begin by Spring 2008.

Wrap Up

- All PowerPoint presentations are posted on the department website.
- Next meeting date: **November 29.**
- 2008 BMOs will be due to staff February 1st.