Recommended Commission Agenda

At the August 11th meeting, the Commission began the review and straw voting for Chapter 11, the Water Resources Element. For tonight’s meeting staff recommends that the Commission:

1. Review the outstanding policy decisions for Chapter 11, Water Resources.
2. Allow time for public comments.
3. Continue review and deliberation of Chapter 11, Water Resources.
4. Continue the hearing to September 8th or other suitable date.

Outstanding Issues for Chapter 11 Water Resources Element

WR-G7. Effective Conservation Strategies

For the August 11, 2011 Commission meeting staff proposed the following revisions to WR-G7:

WR-G7. Effective Conservation Strategies. Effective application of conservation, water re-use, and low impact storage strategies in meeting year-round water supply needs in water supply limited areas.

During the meeting, the Commission discussed various edits to WR-G7. There was consensus to delete the phrase “in water supply limited areas,” but no consensus regarding the phrasing regarding storage strategies. A main concern was that it was vague. The recommended revision adds an example (rainwater catchment) to give a better idea of what “low impact storage strategies” means. Other possible phrasing could be “environmentally friendly storage strategies”.

Based on the Commission’s discussion of staff recommends the following version of WR-G7:

WR-G7. Effective Conservation Strategies. Effective application of conservation, water re-use, and low impact storage strategies such as rainwater catchment in meeting year-round water supply needs in water supply limited areas.

WR-G8. Restoration of River Flows

For the August 11, 2011 Commission meeting, staff proposed the following revisions to WR-G8:

WR-G8. Restoration of River Flows. Sufficient Restoration of water flows in the Trinity, Klamath, Eel, and other rivers systems to meet all beneficial uses, including salmon and steelhead recovery plans, recreational activities, and the economic needs of river dependent communities, and with no additional upper or mid-level watershed exports from rivers flowing through the County.

During the meeting, the Commission discussed various edits to WR-G8, trying to be inclusive of all watersheds but recognizing the need to differentiate the Mad and possibly Redwood Creek. It was finally realized that there was a need for two (or perhaps three) goals, one dealing with rivers that have water export projects on them now, and another (or two other) goal(s) to address restoration of all watersheds and restoration of water quality (specifically delisting of the impaired TMDL status).
Based on the Commission’s discussion staff recommends the following revision of WR-G8 to address the specific flow issues from impacted rivers and a new goal WR-G8x1 to address the de-listing of waterways:

WR-G8. Restoration of Impacted River Flows. Sufficient Restoration of water flows in the Trinity, Klamath, Eel, and other river systems impacted by out of basin water diversions to meet all beneficial uses, including salmon and steelhead recovery plans, recreational activities, and the economic needs of river dependent communities, and with no additional upper or mid-level watershed exports from rivers flowing through the County.

WR-G8x1. Restored Water Quality and Watersheds. All water bodies de-listed and watersheds restored, providing high quality habitat and a full range of beneficial uses and ecosystem services.

WR-P2 and NEW POLICY Re: Un-Permitted Development.

The Commission discussed changes to WR-P2 regarding the word “existing” and other suggested changes by commentors. Commissioner Faust expressed the desire to have a policy that stated it was unlawful to have un-permitted diversions serving un-permitted development, and the Commission directed staff to return with such a policy.

The original policy language of WR-P2 is as follows:

WR-P2. Protection for Existing Surface and Groundwater Uses. Impacts on existing beneficial water uses shall be considered and mitigated during discretionary review of land use permits that are not served by municipal water supplies. Compliance measures for un-permitted development not served by municipal water supplies shall include mitigations for surface or groundwater resource impacts.

Based on the Commission’s discussion staff recommends the following revision of WR-P2 and new policy WR-P2x1:

WR-P2. Protection for Existing Surface and Groundwater Uses. Impacts on existing Basin Plan beneficial water uses shall be considered and mitigated during discretionary review of land use permits that are not served by municipal water supplies. Compliance measures for un-permitted development not served by municipal water supplies shall include mitigations for surface or groundwater resource impacts.

WR-P2x1. Water Withdrawals Serving Un-permitted Development. It shall be unlawful to draw water to serve un-permitted development. Compliance measures for un-permitted development not served by municipal water supplies shall include mitigations for surface or groundwater resource impacts.

Attachment 1: Recommended Policy Revisions from the 8-11-11 Staff report
Attachment 2: Excerpt of a report explaining what “ecosystem services” are.
Attachment 3: Fact Sheets on Groundwater Management in California from the Department of Water Resources,
ATTACHMENT 1
Recommended Policy Revisions from the 8-11-11 Staff report

(NOTE: no new language recommendations, this was originally provided in the August 11, 2011 Commission packet and supplied here for convenience only)

WR-Px. Water Export Facilities. No new facilities for export of water to locations outside Humboldt County shall be permitted unless the County has issued a Conditional Use Permit for such export facilities. Issuance of the use permit shall require a finding that the proposed water export will not be detrimental to beneficial uses within the County.

WR-P31. Downstream Peak Flows. Peak stormwater discharge shall not exceed the capacity limits of off-site drainage systems or cause downstream erosion, flooding, habitat destruction, or impacts to wetlands and riparian areas. Detention facilities shall be required to ensure that storm flows from the 100-year (Q100) storm shall be detained so as to release water from the site at a rate no greater than the pre-development 2-year (Q2) storm flows. New development shall demonstrate that post-development peak flows to watercourses shall not exceed pre-development peak flows.

WR-P36. Erosion and Sediment Control Measures. [move trailing “and” from G. to F.]

WR-S1. Designation of Critical Water Supply and Watershed Areas. The designation by the Board of Supervisors of Critical Water Supply and Watershed Areas shall be a public process, involving a recommendation from the Planning Commission and input from the public, affected water providers, and state and federal agencies.

A Critical Water Supply Area is defined as the specific area used by a municipality or community for its water supply system, which is so limited in area that it is susceptible to a potential risk of contamination from development activities.

WR-IMx1. Update Water Quality Regulations. Amend the Grading, Excavation, Erosion, and Sedimentation Control Regulations and Division 1, Planning Zoning Regulations Chapter 6 - General Provisions and Exceptions Section 314-61.1 Streamside Management Area Ordinance to reflect the new erosion, sediment control, vegetation, restoration, and stormwater drainage policies and standards contained in the Water Resources Element, and the Biological Resources Chapter of the Conservation and Open Space Elements and evaluate as part of the five-year Housing Element Update to determine if additional measures are needed to protect water quality.

WR-IMx2.(new) Prepare an ordinance to provide increased enforcement capabilities for un-permitted development within critical watershed areas if the development impacts water resources. Work with the State Departments of Water Resources and Fish and Game to address illegal water diversions and over-subscribed water right allocations.

Graywater Policies

WR-P14. Pathogen and Nutrient Discharge from Septic Systems. Support programs including the experimental sewage disposal program, and practices such as on-site graywater re-use to reduce coliform bacteria and nitrate discharges from septic systems that do not meet operational standards established by the North Coast Regional Water Quality Control Board. Work cooperatively with Environment Health to assess the need for land use controls in areas where septic discharge threatens public health or beneficial uses.

WR-IMx. Graywater Re-use Standards. Update and amend the existing County Code to implement the revisions to the State California Plumbing Code, Title 24, Part 5, Chapter 16A regarding Graywater Standards, as reflected in SB1258.
Attachment 2:  
"Ecosystem Services" Excerpt
Forests and Water | Forests Provide Many Ecosystem Services. Watershed Services Are the Most Important.

Forests supply many ecosystem services, which are the benefits people derive from nature. This chapter describes those services associated with the provision of water and other critical watershed functions, known as watershed services. Many of these services are vital for life and human well-being and cannot be replaced (see box on next page).

Forested watersheds, for example, are essential to sustaining the Nation’s freshwater supply. More than 50 percent of this supply originates on forest lands. In the Western United States, 65 percent of the water supply comes from forests. National forests alone provide 18 percent of the Nation’s water, and over half the water in the West (Brown et al. 2008) (see fig. 2). High-elevation forests are particularly important because these headwater catchments store vast quantities of water as snow during the winter, then release it gradually through spring and summer, sustaining downstream water supplies during dry seasons.

Forested watersheds reduce storm runoff, stabilize streambanks, shade surface water, cycle nutrients, and filter pollutants. Consequently, the quality of this water is typically the best in the Nation (Brown and Binkley 1994). Water from these areas is often cooler and generally contains less sediment, nutrients, and chemicals than water from other lands (Binkley et al. 2004, Chang 2003, Dissmeyer 2000, Wear and Greis 2002). Streams in forested watersheds also often provide high-quality habitat for sensitive aquatic species.

This large volume of high-quality water from forests is immensely valuable because it supports many uses, ranging from meeting basic human needs to providing habitat for rare and endangered species. It fills our rivers, streams, lakes, and aquifers; sustains fish, plants, and wildlife; supports food, energy, and industrial production; enables navigation; and pours from the faucets of our homes and businesses. Some of these uses are described in further detail in the following sections.
What are ecosystem services?

Ecosystem services are benefits obtained from nature that are critical to human health and well-being. These services are typically grouped into four categories: regulating, supporting, provisioning, and cultural (Millennium Ecosystem Assessment 2005). Watershed services are a subset of ecosystem services that are associated with water and watersheds (fig. 3). Definitions of these different types of services and examples pertaining to watersheds are provided below.

![Figure 3—Watershed services.](image)

- **Regulating services** are benefits obtained from the regulation of ecosystem processes. Examples include flow regulation (surface and groundwater flow), erosion control, water purification, and water temperature control.

- **Provisioning services** include products obtained from ecosystems. Principal watershed services from forests include freshwater supply for domestic, agricultural, commercial, industrial, and other uses.

- **Supporting services** include the basic ecological elements and processes necessary to sustain ecosystems. These include processes like soil development, and nutrient and water cycling.

- **Cultural services** are nonmaterial benefits people obtain from forests through recreation, spiritual enrichment, reflection, and aesthetic experiences. Forests provide significant water-based recreational opportunities in the form of boating, fishing, skiing, camping, hiking, sightseeing, and other activities. They also offer education and interpretation opportunities and afford protection for culturally and historically important water resources.

These services are provided naturally by well-functioning ecosystems. They are immensely valuable, because if they are compromised, replacing them is often not possible or is very costly. Ecological economists have begun efforts to value some ecosystem services, with the ultimate goal of enhancing efforts to more efficiently use, maintain, and protect them. Provision of water is a vital ecosystem service provided by forests, so one might ask: **What is the value of water?**

**Water is essential for life**—The Nation's total supply of water and ecosystem services provided by healthy watersheds are priceless. Because forests provide so much of the country's water, they are of tremendous importance. A lower bound on the total value of water from national forests alone is estimated to be several billions of dollars per year (Brown 2004). An accurate estimate of the total value is impossible to achieve, however, because only some products and services are assigned an economic market value. Moreover, these values apply at the margin, whereas forests tend to provide a large (nonmarginal) portion of the total water supply (Brown 2004).
Attachment 3:
Department of Water Resources
Fact Sheet on Groundwater Management in California
Groundwater and surface water are not treated alike under California law. The permit application process for appropriating surface water in California is contained in the California Water Code. By contrast, rights to use groundwater have evolved through a series of court decisions dating back to the late 1800s.

Although surface water and groundwater supplies have been regarded as separate water resources in California, they are the same resource—water.

In some parts of California the relationship between overlying landowners that extract groundwater and local water management agencies is not clear.

This situation has complicated relationships between landowners who use groundwater, and local water agencies and districts which import surface water.

This Water Facts describes the six methods of managing groundwater used in California. The methods are listed in the chronological order in which they were developed.

1. Overlying Property Rights
Overlying property rights allow anyone in California to build a well and extract their correlative share of groundwater—which is not quantified unless the groundwater basin has been adjudicated. Historically landowners used groundwater to develop a local economy. As the economy grew, the demand for water increased. To meet this increasing water demand, water projects were built to provide more surface water. Although groundwater management may not be closely coordinated under this method, some consider this a form of management.

2. Statutory Authority
There are 22 kinds of districts or local agencies with specific statutory provisions to manage surface water identified in the California Water Code. Some of these agencies have statutory authority to exercise some forms of groundwater management. Some agencies have done so; others have not.

3. Adjudicated Groundwater Basins
Some California groundwater basins have been adjudicated. After a lawsuit is initiated to adjudicate a groundwater basin, the court decides the groundwater rights of all the overlayers and appropriators. The court decides who the extractors are, how much groundwater those well owners can extract, and who the Watermaster will be. The Watermaster ensures that the basin is managed according to the court’s decree and reports periodically to the court. There
are 18 adjudicated groundwater basins in California. For a description of adjudicated groundwater basins see Water Facts No. 3 “Adjudicated Groundwater Basins in California.”

4. Groundwater Management Districts or Agencies
In some parts of California, special legislation has been enacted to form groundwater management districts or agencies. This legislation allows these districts to adopt ordinances to limit or regulate groundwater extraction. There are nine groundwater management districts in California, and they have had degrees of success at managing groundwater. The statutory authority of three other water districts has been modified to grant them powers similar to legislative groundwater management agencies. For a description of groundwater management districts or agencies see Water Facts No. 4 “Groundwater Management Districts or Agencies in California.”

5. Groundwater Management Plan (AB 3030 Plan)
Section 10750 et seq. of the California Water Code (AB 3030, 1992) provides a systematic procedure for an existing local agency to develop a groundwater management plan. This section of the Water Code provides such an agency with the powers of a water replenishment district. This allows the agency to raise revenue to pay for facilities to manage the groundwater basin (extraction, recharge, conveyance, quality). About 160 agencies have adopted AB 3030 groundwater management plans.

6. City and County Ordinances
California courts have upheld the right of cities and counties to regulate groundwater under their police powers. In Baldwin v Tehama County (1984), the Court of Appeal rejected arguments that the ordinance was pre-empted by State law. The court reasoned that State law does not occupy the field of groundwater management and does not prevent cities and counties from adopting ordinances to manage groundwater. The California Supreme Court declined to review the Court of Appeal’s Tehama decision. The Tehama County ordinance remains in effect. Butte, Glenn, Imperial, Inyo, Kern, Lake, Napa, San Diego, San Joaquin, Shasta, Ventura and Yolo Counties have adopted ordinances. Other counties are considering ordinances. However, the full nature and extent of the power of cities and counties to regulate groundwater remains uncertain.

For More Information
For more details about groundwater law, refer to the California Water Code or DWR Bulletin 118: California’s Groundwater. You may also want to contact your local water agency or contact an attorney who specializes in water law. See DWR’s Web page at www.dpla.water.ca.gov/cgi-bin/supply/gw/management/hq/main.pl, or contact any of the following:

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