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Chapter 30. Water and Culture

Water Plan Update 2013 is the first Update to include a Water and Culture Resource Management Strategy. Chapter 30 presents the emerging thinking of many Water Plan Advisory Committee members and other stakeholders on the importance of linking cultural considerations to water management. In many respects the Chapter represents more of an annotated outline than a fully developed strategy. Even so, the Water Plan stakeholders asked that the chapter be included if only to improve awareness of the need for the strategy and to continue dialog on what it should include.

While water is one of the few cultural references globally, there is great diversity in how water is perceived, valued, used, distributed, and regulated in California. There are many understandings of water and different meanings of water that reach beyond a water manager's orientation towards use or commoditization and supply distribution.

Water and culture are connected in a myriad of ways, with subtle and complex implications for water management in California. Some cultural relationships to water are so pervasive, they may be easy to overlook. Other cultural considerations are less apparent and may be difficult to recognize. Increasing the awareness of how cultural values, uses, and practices are affected by water management, and how these have an effect on water management as well, such information will help inform policies and decisions. Even regulations reflect cultural values by their practice such as water, when viewed as a commodity, may be controlled through laws, regulations, and policies.

Water resources have shaped the history of California, contributing to the current social, cultural, and economic patterns across the state. The presence of freshwater sources has influenced the location of settlements and communities for hundreds, even thousands, of years. Water resources have also been pivotal to key economic activities such as fishing, mining, agriculture, manufacturing, as well as tourism and recreation. These historic aspects of development continue to have ramifications for water managers today.

Water and water-dependent resources also shape individual and collective experiences contributing to individual and community well-being, sense of identity, and connection with the natural world. These experiences are inextricably linked to values, traditions, and lifestyles, which in turn inform perspectives and expectations regarding water resources and conditions. Cultural considerations by their nature are inherently linked to every resource management strategy. More important, the consideration of culture in water management decisions is in many cases legally mandated by state and federal laws. Utilizing cultural considerations in the framing, development, and promoting of management decisions is vital to ensuring legal compliance and sustainable practices.

What is Culture?

Most people have a reference point for the word "culture," but it is not an easily defined term. Culture is contextual. No single definition of culture satisfies all the diverse perspectives within California. Culture can and does include lifeways, mindsets, spirituality, creation stories,

1 livelihoods, personal and community histories, and practices that represent the diversity of
2 California’s social fabric.

3 Likewise, there is a range and variety in how the science community describes and defines
4 culture. Even various State, Tribal and Federal entities have definitions to help in the
5 implementation and understanding of laws relating to preservation and incorporation of culture
6 in resource management decisions.

7 A definition of culture includes far more than what is contained in this chapter. Due to the
8 complex nature of culture and its interconnectedness with water, water management agencies
9 and decision makers should look to the local communities, groups, and California Native
10 American Tribes to understand those cultures. This process of inquiry facilitates understanding
11 how management decisions impact local cultures as well as how water resources and water
12 policy are impacted by those same cultures.

13 In addition, in some cases there are legal requirements for engaging with California Native
14 American Tribes. Engaging with Tribes and tribal community leaders early on regarding water
15 resource management is the best way to ensure local, state, federal, and international legal
16 obligations are met.

17 **Cultural Resources and Cultural Resources Management**

18 A similarly diverse term is cultural resources which include both physical and intangible aspects
19 of social practices, routines, and ways of life. Intangible aspects of culture include language,
20 beliefs, practices, and traditions. These are often associated with cultural resources comprised of
21 physical objects or places including structures, cultural landscapes (which combine natural and
22 constructed elements), specific locations with special significance, or natural materials.

23 Management choices for some cultural elements are guided by statutory requirements. For
24 example, cultural resources representing historic artifacts, sites, and buildings may be protected
25 under the National Historic Preservation Act. The equitable distribution of effects and benefits is
26 evaluated with regard to environmental justice and public trust factors. Other cultural materials,
27 uses, and practices might need to be assessed within the context of a particular policy or project.

28 For more information on Cultural Resources and Cultural Resources Management go to
29 Reference Vol. 4: What is Culture? Approaching Cultural Diversity in California and Varying
30 Definitions of Culture.

31 **Cultural Considerations and Water Management in California**

32 Expression of cultural connections to water and water-dependent resources can involve a wide
33 range of activities and material objects. The following categories of cultural activities are offered
34 to encourage reflection and discussion with the community on the different ways water and
35 culture interface. The categories are for illustrative purposes only and contain areas of overlap.

36 **Subsistence Activities** include traditional hunting, fishing, and collecting plants for food
37 sources, medicinal properties, and raw materials. Water flows and water quality are critical

1 aspects of supporting water-dependent subsistence activities. Public health risks can occur if
2 food sources are obtained from contaminated water bodies. These risks are increased with higher
3 consumption levels of locally obtained food sources that can occur in subsistence households and
4 communities. This can well exceed safe consumption levels. For example, no more than three
5 servings a week of fish caught in a particular lake or stream should be eaten due to a health risk
6 in that particular lake or stream. Also, communication relating to risks or contamination may be
7 hampered by language barriers.

8 **Recreation Activities** embrace a broad spectrum of pursuits that range from full-body contact
9 (swimming, surfing) to minimal contact (water providing the scenic backdrop for hiking and
10 wildlife viewing). Recreational pursuits encompass motorized and non-motorized activities.
11 These activities range, for example from boating and riding jet skis to picnics and kayaking.
12 Here again, water flows and water quality are key factors contributing to recreational
13 experiences. Public health risks can occur if waters are contaminated. Beach closures, which
14 protect public health, also affect recreation and tourism. Another factor that can influence water-
15 related recreation is the availability of facilities, such as boat ramps, parking, rest rooms and
16 general-purpose stores.

17 **Spiritual Activities** draw upon the cleansing, healing, and renewing properties of water.
18 Examples include outdoor baptisms, sweat lodges, lakeside weddings, Native American
19 ceremonies, and the blessing of the fleet in fishing communities. While these examples focus on
20 particular activities, some perspectives see an inherent spirituality in water itself, which is always
21 present. These events and perspectives share a common theme in transcending the mundane
22 through a sacred and profound connection to water. In addition to water levels/flows and water
23 quality, those seeking a spiritual experience may include considerations of aesthetics and
24 solitude. A busy pattern of recreational use on public lands could interfere with sacred pursuits.

25 **Historic Preservation** seeks to maintain the legacy of the past by protecting historical features
26 (artifacts, sites, places, buildings, or cultural landscapes). Some historic objects may be directly
27 related to water infrastructure (diversions, flumes, mills). Other historic features may not be
28 directly related to water resources, but are challenged by water management projects and
29 activities. For example, receding waterlines at lakes or reservoirs could expose protected historic
30 features. Conversely, surface storage facilities could inundate historically or culturally significant
31 features or locations that are important to a community. Another example is water system
32 upgrades that need to modify or replace historic infrastructure or support buildings, or new water
33 projects where ground-disturbing activities could destroy historic resources. Water managers are
34 encouraged to review the legal requirements with their legal office that might be associated with
35 these situations. A list of key statutory provisions is provided in another section of this resource
36 management strategy.

37 **Public Art** has recorded and served as an integrated expression of Water in California. This
38 extends to utilizing water infrastructure as the location of art, presentations of art in music and
39 other mediums as transference of culture, and art providing the platform to express people's
40 relationship with water and the watershed.

1 One response to the Rim Fire, a major fire event in 2013, was a community healing process
 2 using art as method of expression. Groveland, CA, a town of roughly 2500 human inhabitants
 3 located less than 25 miles west of Yosemite National Park on Hwy 120, was impacted in
 4 multiple ways by the fire. Economic damages to the tourism economy has closed many local
 5 businesses. As the fire burned over several months local author Elizabeth Dougherty wrote that
 6 the citizens turned to the sky “waiting for fall rains to douse the last of its burning fervor.
 7 Whether at an art exhibit, a yard sale, a trivia night, a visit to the town dump, the need continues
 8 for each person to tell their experience, their story, of how the Rim Fire came into their lives,
 9 onto their properties, into the bodies of their cattle, igniting their deeply adored Stanislaus Forest
 10 and Tuolumne River Watershed.”

11 The relationship of the Rim Fire to the large population centers may not have been readily
 12 apparent, yet this same land base is the watershed that provides water to the San Francisco Bay
 13 area. A coalition of community advocates organized a mixed media art show "[Standing with the
 14 Watershed](#)" in downtown San Francisco and sought artists to share their visceral experiences of
 15 both the Tuolumne River Watershed itself and the use of these waters in San Francisco and
 16 Silicon Valley. Dougherty wrote, “We want to enliven the souls of those who visit during the
 17 two month exhibit with the energy and vitality of this watershed pre-, during-, and post Rim Fire.
 18 We want to celebrate the watershed and its inhabitants in all forms. Viva la Tuolumne! “

19 The Great Wall of Los Angeles, a monumental work by Judith Baca is a novelization of the City
 20 of Los Angeles' past. It is situated on flood infrastructure. The work is symbolic on multiple
 21 levels and creates a new relationship with a water way and the evolution of the City. Still other
 22 symbolic and important art-water installations, including the use of bridges can be found
 23 throughout California.

24 See https://www.google.com/search?q=public+art+california+water&rls=com.microsoft:en-US:IE-Address&rlz=1I7AURU_enUS499&source=lnms&tbnm=isch&sa=X&ei=da2gUoyJKpL6oASyyYLYAg&ved=0CAkQ_AUoAQ&biw=1600&bih=720&dpr=1
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 27 [Address&rlz=1I7AURU_enUS499&source=lnms&tbnm=isch&sa=X&ei=da2gUoyJKpL6oASyyYLYAg&ved=0CAkQ_AUoAQ&biw=1600&bih=720&dpr=1](#)
 28 [Address&rlz=1I7AURU_enUS499&source=lnms&tbnm=isch&sa=X&ei=da2gUoyJKpL6oASyyYLYAg&ved=0CAkQ_AUoAQ&biw=1600&bih=720&dpr=1](#) chapter.

29 See also: Water and culture photos (please speak with Emily Alejandrino)

30 **Lifeways** represent the larger collective mindsets and practices that represent the diversity of
 31 California’s social fabric. Shared passions, beliefs, histories, and experiences bring people
 32 together to create group and community identities. Several of the lifeways, which have come to
 33 typify California to the rest of the world, have a strong connection to water.

- 34 • California Native American tribes often describe their social and cultural identities in
 35 terms of being inseparable from the natural world.
- 36 • Fishing towns and villages share social and cultural identities that derive from
 37 livelihoods that also define ways of life.
- 38 • Ranching and agricultural communities were settled near water sources; these working
 39 landscapes also provide habitat and vistas that characterize the West.
- 40 • The surfing and beach culture of California is directly associated with coastal and ocean
 41 resources, projecting an iconic image and serving as a key economic driver.

- 1 • The environmental movement in California has strongly advocated for coastal and
- 2 riverine protections throughout the state.
- 3 • Access to water is the foundation of many local economies.

4 These lifeways are characterized by a close relationship with the land and waters. The well-being
 5 of the social fabric, economy and environment and community are one. This creates
 6 responsibilities to long-term stewardship and heightened awareness, knowledge, and expertise
 7 regarding local conditions.

8 Also, any social, cultural, or economic uses of waterways or water-dependent resources can
 9 impact the resource base. This can result from trash, overuse, or the introduction of non-native
 10 species.

11 **California Native American Tribes' Relationships with Water**

12 In California, the relationship of California Native American Tribes and Water is fully rooted.
 13 California Native American Tribe's village sites and areas for cultural practices are found within a
 14 quarter mile of water whether it is a spring, creek, river, etc. which may still exist or once
 15 existed. It is routine for excavations near a water body to uncover artifacts, such as bedrock
 16 mortars, petroglyphs, and tools, affirming the Native American relationship with water (Goode
 17 2011).

18 A desire to preserve this heritage, among others, has led to enactment of multiple state and
 19 federal requirements for protecting various cultural resources. These requirements are often
 20 imbedded in other statutes then triggered by many water management actions. A simple
 21 example is any water project that requires a federal permit or uses federal funds may be subject
 22 to the National Historic Preservation Act (NHPA). Depending on the activity, Section 106,
 23 which requires agencies to engage in a good faith effort to consult with Tribes on a government-
 24 to-government basis, may be triggered. Each activity and situation is different, however, the
 25 awareness that such triggers may exist allow Water Managers to take these requirements into
 26 account early in a process and conduct meaningful outreach and government to government
 27 consultation as appropriate.

28 A less obvious trigger might include laws such as the California Coastal Act. This Act contains
 29 Section 30244, which states that "Where development would adversely impact archaeological or
 30 paleontological resources as identified by the State Historic Preservation Officer, reasonable
 31 mitigation measures shall be required."

32
 33 Because each and every situation is different, water managers are advised to consult with their
 34 own legal representatives to determine the best course of action. However, early, often and
 35 meaningful outreach and engagement (and where appropriate government to government
 36 consultation) with California Native American Tribes and stakeholders can help managers
 37 identify potential issues and mitigation strategies. Some managers avoid outreach and
 38 engagement thinking it is time consuming or costly but time and again, upfront planning often
 39 prevents far more costly implementation delays and/or litigation.
 40

1 Beyond legal considerations, the California Native American Tribes' traditional practices for
 2 land stewardship considered the need for sustainability (Goode 2011) and regeneration for future
 3 generations. As with many other first peoples, these traditional practices and knowledge have
 4 been maintained and passed down over generations and make up the basis of what is termed,
 5 Traditional (or Tribal) Ecological Knowledge (TEK). TEK offers both a perspective of
 6 California Native American Tribe's culture, relationships with water, and various sustainable and
 7 adaptable water management tools and techniques.

8 There is a growing awareness among resource managers of the value of this knowledge for
 9 decision making today. One example of TEK is cultural burning or prescribed burning, which is
 10 becoming more prevalent in land use practices to improve water flows. When water
 11 management (and land use management) decisions are made without reference to California
 12 Native American Tribal relationships to water and/or TEK these decisions may result in a lack of
 13 access to water, adverse changes to water quality and unmanaged water diversions; all of which
 14 have significant impacts on California Native American Tribal lifeways,

15 For more information on TEK, cultural burning, and ways to incorporate these in water
 16 management decisions see the Water and Culture References Guide.

17 [Implications for Water Management](#)

18 Understanding the activities and accomplishments of past groups is important since the decisions
 19 made in the present are often influenced by the past. Simply stated, in order to understand the
 20 future, there first must be an understanding the common past and heritage shared by all. This is
 21 particularly relevant within California as the state's history is bound to the availability and
 22 development of water infrastructure. Without understanding the basis and context of existing
 23 infrastructure and management, it is difficult to understand the consequences of future actions.

24 In today's context, cultural practices and perspectives may also be a source of conflict or result
 25 in special management needs. For example, a number of immigrants bring cultural practices to
 26 California and continue them, which may result in unintended consequences. For example,
 27 subsistence fishing may expose a community to high levels of contaminants. In other cases non-
 28 native species have been intentionally introduced with good intentions without an understanding
 29 of the impacts to the native species.

30 Historic practices of long-time residents that were a high utility at one time may create or
 31 experience unintended consequences due to demands of competing uses or increased concerns
 32 over potential negative impacts. One example is the controversy over suction dredging. This is
 33 coupled with increased population growth and urbanization. Some historic practices may not
 34 have been a problem in more rural or agrarian settings but now are in conflict with other values.
 35 Still, other conflicts arise as communities attempt to retain historic character in the face of
 36 dramatic change.

37 A sample of other current water management issues directly tied to past economic and
 38 development patterns are:

- 39 ● Placer mining legacy issues of heavy metals contamination.

- 1 • Reclamation of floodplains and wetlands and developing them.
- 2 • Hydropower operations and consequences for sediment management, fish passage, and
- 3 water flows and temperature.
- 4 • A hybrid system of water rights which encompasses riparian and appropriate rights and
- 5 adjudicated groundwater basins.
- 6 • Historic placement of industrial facilities and dairies near waterways to help manage
- 7 waste, which now results in legacy issues.
- 8 • Logging activities and flash dams, which modified watersheds.
- 9 • Construction of large-scale water infrastructure systems, which have fundamentally
- 10 changed many areas of the state.
- 11 • Railroad construction and the dewatering of high-elevation meadows.

13 Today there is a new urgency in planning and protecting the shoreline for water-dependent uses.
 14 Many view the preservation of land for water-dependent uses, in part, as the preservation of the
 15 historical and cultural resources that contribute to the charm of coastal communities. Policy-
 16 makers have used restrictive zoning, tax abatement, public acquisition of critical parcels through
 17 fee-simple or less-than-fee purchases, and transfer of development rights to surrounding lands to
 18 conserve those lands best suited for water dependent uses (Goodwin, 1994). The public benefits
 19 are protected or required. The unique characteristics of waterfronts provide a wide array of
 20 public benefits involving the economy and jobs, the culture of the community, the physical
 21 environment, access to the waterfront, and many other dimensions. These public benefits provide
 22 local communities with both the rationale and the goals for developing programs to preserve and
 23 maintain water dependent uses.

24 **Potential Benefits**

25 In addition to ensuring compliance with relevant legal mandates to consider culture, the
 26 consideration of culture and cultural activities can help frame management decisions. Cultural
 27 activities can assist in developing sustainable management decisions (see Reference Guide on
 28 cultural burning and TEK). A failure to utilize cultural considerations can have significant
 29 impacts culturally, politically and locally, which may result in communities delaying projects
 30 and or funding to essential projects. Likewise, cultural activities can help frame and promote
 31 needed management decisions.

- 32 1. Using traditional knowledge and practices to better sustain and integrate water
- 33 management and provide models of sustainability.
- 34 2. Continuation of traditional practices and knowledge to future generations.
- 35 3. Improved recognition and support of cultural diversity and heritage resources.
- 36 4. Potential partners and alliances for projects, leveraging different funding sources.
- 37 5. Preserving everyone's understanding of California's history.
- 38 6. Understanding the historical context for community establishment, avoid repeating past
- 39 problems, recognizing the challenges for sustainability, and the need for remediation.
- 40 7. Avoiding conflict and litigation.
- 41 8. Avoiding costs (remediation).
- 42 9. Understanding cultural implications associated with sea level rise, adaption, and
- 43 mitigation responses.

- 1 10. Peace of mind, quality of life, life passages.
- 2 11. Serving as models of sustainability.
- 3 12. Learning more about natural processes (rivers/oceans are teachers).
- 4 13. Compliance with cultural resource management laws, requirements for State agencies
- 5 to have inventory of historic assets and report them to Office of Historic Protection.
- 6 14. Understanding perspectives that influence water conservation, water management
- 7 approaches.

8 **Potential Costs**

9 Sample costs associated with furthering the incorporation of cultural considerations in to water
10 management decisions include:

- 11 • Education and outreach.
- 12 • Restoration.
- 13 • Research.
- 14 • Mitigation.
- 15 • Retreat.
- 16 • Historic preservation involving taking inventory, evaluating structures for significance,
- 17 and making management plans (e.g., cultural landscape management plans). Costs
- 18 depend on scale.
- 19 • Interpretive exhibits, markers, plaques.
- 20 • Legal- Both State and Federal laws support the consideration of culture in resource
- 21 management decisions. [The reference guide and bibliography provide some
- 22 information on existing laws]
- 23 • Repatriation.

24 **Major Implementation Issues**

- 25 1. Lack of information and education of what laws apply and the ability to determine who
- 26 is responsible.
- 27 2. Private land owners have different considerations than government agencies if cultural
- 28 remains or artifacts are found on their property.
- 29 3. Concerns similar to those associated with habitat for endangered species (i.e., safe
- 30 harbor) that protection or mitigation efforts may constrain future choices. Once there is
- 31 a historic designation, it's hard to remove a building.
- 32 4. Inherent rights to access and use the waters of the state, tension between access and
- 33 public property — bottom of the river vs. banks of the river (Article 10 of the
- 34 California Constitution).
- 35 5. Coastal access triggers discussion of mean low- and high-tide levels.
- 36 6. Lack of information regarding whom to contact, procedures, and hiring cultural
- 37 monitors and archaeologists.
- 38 7. Lack of agency alignment regarding roles and responsibilities; issues may not be
- 39 referred to other related programs.
- 40 8. Cultural distrust from past experiences makes it difficult to communicate about cultural
- 41 considerations
- 42 9. Economic impacts related to addressing non-native species and dependence on revenue
- 43 from existing invasive species (e.g., striped bass).

1 10. Information on cultural and historical resources exists in various databases. Some of the
2 information, such as regional Information Centers, is a fee-for-service basis.

3 11. Important water resources may originate in areas with little ability to influence public
4 discourse.

5 **Climate Change**

6 Climate change is projected to have a significant impact on water and water-dependent resources
7 in California. Increased air temperatures will result in warmer water temperatures, a shift in
8 precipitation with more precipitation falling as rain rather than snow, more frequent and intense
9 droughts, and rising sea levels. While future precipitation is somewhat uncertain, greater flood
10 magnitudes are anticipated due to more frequent atmospheric river storm events (Dettinger
11 2011). In addition, changes in the type and timing of precipitation will result in altered surface
12 runoff and volumes, with more runoff occurring in the winter and less in the spring and summer.
13 These changes will affect the water-dependent resources that currently support many cultural
14 activities.

15 Changes in temperature and precipitation will affect ecosystems throughout the state and impact
16 the subsistence activities that these ecosystems support, especially those that rely on specific
17 species of plants and animals that are particularly vulnerable to the projected changes. Changes
18 in surface runoff and volume, greater salinity intrusion associated with sea level rise, and warmer
19 water temperatures will also impact recreation and spiritual practices associated with water as
20 water levels, stream flows, and water quality are reduced. Historic preservation activities will
21 also be impacted with important cultural sites being at greater risk either due to exposure during
22 extended drought periods or by inundation or physical damage during extreme flood events.
23 More frequent and intense wildfires could also impact all of these cultural activities.

24 **Adaptation**

25 Probably the biggest impact to water-dependent culture resources will come from large-scale
26 ecosystem changes. However, while climate change creates challenges for ecosystems,
27 maintaining and creating healthy and resilient ecosystems can also reduce the impacts associated
28 with the anticipated changes in temperature and hydrology. Certain actions, such as high-
29 elevation meadow restoration, can slow down increased winter runoff allowing it to recharge
30 underlying aquifers and then slowly releasing that water to help maintain summer in-stream
31 flows. Floodplain restoration also provides similar benefits in protecting water resources while
32 also providing critical habitat for numerous species. In coastal areas, wetlands can provide a
33 buffer against rising sea levels while improving water quality and providing habitat for numerous
34 species.

35 **Mitigation**

- 36 1. Provide outreach and financial and technical assistance to the extent feasible to protect
37 culture resources and increase better understanding of a) carbon sequestration potential
38 with watershed and riparian forests and b) water conservation and water use efficiency
39 for climate change mitigation.

- 1 2. Mitigate, minimize, and reduce greenhouse gas emissions (GHG) related to the water
- 2 project impacts on culture resources to the extent feasible.
- 3 3. Identify tribal opportunities for water recycling and renewable energy and promote
- 4 understanding of cultural practices and implications associated with climate change
- 5 mitigation and responses.
- 6 4. Provide benefits and incentives for tribal water and energy use efficiency projects.

7 Other Resource Management Strategies

- 8 • Chapter 3, “Urban Water Use Efficiency” describes attitudes about recycled water,
- 9 water meters, lawns, desalination.
- 10 • Chapter 4, “Flood Management” discusses lifestyles and land use.
- 11 • Chapter 8, “Water Transfers” as timing of water deliveries from natural systems
- 12 changes, the traditional approaches for water transfers has to be revisited.
- 13 • Chapter 17, “Matching Water Quality to Use” Use recognizes that not all water uses
- 14 require the same quality water. Conflicts can occur when water designated as non-
- 15 potable is accessible to the public, who are uninformed that water quality does not meet
- 16 public health standards.
- 17 • Chapter 18, “Pollution Prevention” discusses proper land use management practices to
- 18 prevent sediments and pollutants from entering the water body.
- 19 • Chapter 22, “Ecosystem Restoration: discusses differences of objectives between
- 20 removal of human-made changes for environmental benefits.
- 21 • Chapter 23, “Forest Management” discusses prescribed burning, the impacts of forest
- 22 management and other activities that affect water quantity and quality.
- 23 • Chapter 24, “Land Use Planning and Management” discusses the physical environment
- 24 al, economic, and social impacts of land use planning and water management.
- 25 • Chapter 29, “Outreach and Engagement” discusses the tools and practices by water
- 26 management agencies to allow groups and individuals to contribute to good water
- 27 management outcomes.
- 28 • Chapter 31, “Water-Dependent Recreation” provides additional discussion on
- 29 recreational aspect of culture and water.

30 The cultural context needs to be considered when implementing any resource management
 31 strategy. Every approach requires looking at the cultural context and any land use activity might
 32 require a cultural resource inventory.

33 Recommendations

- 34 1. Water management agencies should have an appointed preservation officer who is
- 35 responsible for cultural resource stewardship, developing policies and plans for the
- 36 protection of historical resources, and ensuring that the agency follows these policies as
- 37 well as applicable State and federal requirements.
- 38 2. Water management agencies should have cultural resource management programs,
- 39 which include the following:
- 40 A. Inventory of all cultural resources within the jurisdiction of the agency.
- 41 B. Program of systematic condition assessment of cultural resources.

- 1 C. Develop treatment plans and prioritized programs for routine maintenance of
- 2 individual resources.
- 3 D. Establish and maintain a data file for each cultural resource or groups of resources
- 4 organized by field division(s).
- 5 E. Identified research goals for archaeological, ethnographic, and historical research
- 6 proposed within the jurisdiction.
- 7 F. Management of any archaeological or historical object collections maintained by
- 8 the agency.
- 9 G. Establish and maintain relationships with California Native American tribes and
- 10 communities who may have an interest in the cultural resources of the agency.
- 11 H. Staff training and education about cultural resource management.
- 12 I. Coordination with local archaeological and historical societies and other groups
- 13 with an interest in cultural resource protection.
- 14 3. Educate the public about the Surfrider Foundation, the Bolsa Chica \$150 million
- 15 settlement, *Cadillac Desert*, Mary Austin, Tahoe Blue, and Friends of the River.
- 16 4. Educate children how watersheds work, provide knowledge about how water works,
- 17 about water flow, how water moves, impacts of using water resource, AmeriCorps
- 18 projects throughout state, communities service water project engage, and NPS/PS
- 19 projects. Add the hydrologic cycle to the California education standard. Every student
- 20 should learn the hydrologic cycle from headwater to ocean and the impact and
- 21 dependency the state has on water.
- 22 5. Expand inclusion and integration of traditional/indigenous practices and knowledge in
- 23 resources management and planning processes and decisions.
- 24 6. Educate the public about resource stewardship activities associated with different
- 25 groups and organizations.
- 26 7. Centralize information on cultural and historical resources into one database.
- 27 8. Protect sensitive sites from vandalism.
- 28 9. Investigate use of the General Planning Process to better integrate water and cultural
- 29 considerations.
- 30 10. Collaboratively identify statewide, local, and inter-agency efforts to implement early
- 31 engagement, and incorporation of culture to ensure non-duplication of efforts and
- 32 maximize resources.

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16 *Conservation*. Hadleigh, UK: Water UK Publications.

17 **Personal Communications**

18 Goode, R. Chairman of North Fork Mono Tribe, October 18, 2011 — personal communication.

19 Miranda-Begay, D. October 23, 2013 — personal communication.

Box 30-1 Laws and Policies

California

- California Environmental Quality Act (CEQA) — California Public Resources Code Section 21000 et seq.
- Native American Historical, Cultural and Sacred Sites — California Public Resources Code Sections 5079.60 et seq.
- Preservation of Significant Archaeological Resource Areas and Associated Artifacts — California Public Resources Code Sections 5079.60 et seq.
- Destruction of Archaeological Sites and Caves — California Penal Code Sections 622.5 – 623
- Investigation, Excavation and Preservation of Historic or Prehistoric Ruins — California Water Code Section 23
- Governor's Executive Order No. W-26-92 — Management of significant heritage resources under jurisdiction of state agencies
- Governor's Executive Order B-10-11 — Encourages Communication and Consultation with California Indian Tribes
- California Natural Resources Agency Tribal Consultation Policy

Federal

- National Historic Preservation Act (NHPA) — 16 U.S.C. Sections 470 et seq.
- National Environmental Policy Act (NEPA) — 42 U.S.C. Sections 4321 et seq.
- Archaeological Resources Protection Act (ARPA) — 16 U.S.C. Sections 470aa et seq.
- Archaeological and Historic Preservation Act (AHPA) — 16 U.S.C. Sections 469 et seq.
- Native American Graves Protection and Repatriation Act — 25 U.S.C. Sections 3001 et seq.
- American Indian Religious Freedom Act — 42 U.S.C. Section 1996
- National Park Service Bulletin 36 — Protecting Cultural Landscapes: Planning, Treatment and Management of Historic Landscapes
- (Federal) Executive Order 13175 — Consultation and Coordination with Indian Tribal Governments (2000)

Federal Consultation

- <http://ceq.hss.dow.gov/nepa/regs/eos/eo13175.html>.
- <http://www.dot.ca.gov/ser/vol1/sec3/cultural/ch28arch/chap28.htm#definition>.

Box 30-2 Diverse Definitions of Culture

Topical	Consists of everything on a list of topics or categories such as social organization, religion, or economy.
Historical	Social heritage or tradition that is passed on to future generations.
Normative	Ideals, values, or rules for living.
Behavioral	Shared, learned human behavior; a way of life.
Functional	Way humans solve problems of adapting to the environment or living together.
Mental	Complex of ideas or learned habits that inhibit impulses and distinguishes people from animals.
Structural	Consists of patterned and interrelated ideas, symbols, or behaviors.
Symbolic	Based on arbitrarily assigned meanings that are shared by a society.

Source: Bodley JH. 1997. Cultural Anthropology: Tribes, States, and the Global System. 2nd edition. p. 9, as modified from Kroeber A. Kluckhohn C. 1952. Culture, A Critical Review of Concepts and Definitions. Cambridge (MA): Papers of the Peabody Museum of American Archaeology and Ethnology no. 1. Harvard University