Content

Chapter # Water-dependent Recreation ................................................................. 1
Water-dependent Recreation in California ........................................................ 1
Potential Benefits of Water-dependent Recreation ............................................. 2
Potential Costs of Water-dependent Recreation ............................................... 2
Major Issues Facing Water-dependent Recreation ............................................ 3
  Funding ........................................................................................................ 3
  Impacts to Natural Resources ................................................................. 3
  Water Quality ......................................................................................... 3
  Coordination ......................................................................................... 4
  Climate Change ....................................................................................... 4
  Flood Management Control ..................................................................... 4
Recommendations to Facilitate Water-dependent Recreation ......................... 4
Selected References ..................................................................................... 5

Figures
PLACEHOLDER: Figure #1 Percentage of Californians participating in these water-dependent activities 1
PLACEHOLDER: Figure #2 Economic output to California from freshwater fishing by licensed anglers. 2
Chapter # Water-dependent Recreation

Water-dependent recreation includes a wide variety of outdoor activities that can be divided into two categories. The first category includes fishing, boating, swimming and rafting, which occur on lakes, reservoirs, and rivers. The second category includes recreation that is enhanced by water features but does not require actual use of the water, such as wildlife viewing, picnicking, camping and hiking.

Water-dependent recreation is included among the water management strategies because recreation is an important consideration for water managers. Water management and water infrastructure can have significant effects on recreation. By considering recreation during the planning process, water managers can take advantage of opportunities to enhance recreation and guard against actions that would limit recreation.

The Davis-Dolwig Act was passed by the California Legislature in 1961. This act established State policy regarding recreation and fish and wildlife enhancement at State-built water facilities and specified the responsibilities of State agencies under the act. Compliance with the provisions of this act is an important consideration for State water managers when new facilities are built.

The management of lands and water resources by the State, including those associated with State water projects, invokes an implied principle of trust responsibility. State agencies managing lands and water resources are required to uphold public trust in the planning, management, use, and protection of resource values. As trustee to public resources, the State must consider the benefit and use of land and water resources for recreational opportunities. As discussed in Chapter ? of Volume 1, the Public Trust Doctrine recognizes recreation as one of the public trust uses that State agencies must take into account when managing tidelands and navigable waters and their tributaries. [update]

Water-dependent Recreation in California

Each year millions of people visit California’s waterways seeking an enjoyable recreation experience. With its temperate climate and over 1.3 million acres of water surface, 2,600 miles of waterways and 3,427 miles of coastline, California is able to offer a variety of recreation opportunities during any season. In 2007, adults spent about 150 million days enjoying recreation activities directly dependent on water. Many more days were spent in nature-based activities such as wildlife viewing (55 million adult participation-days), and hiking (36 million adult participation-days) [update with data from 2007 PO&A Survey]. In 2006, being one of the most popular pursuits among California travelers, beach and waterfront activities helped draw 366 million visitors making California the most visited state in the country.

PLACEHOLDER: Figure #1 Percentage of Californians participating in these water-dependent activities
The 2007 Public Opinion and Attitudes on Outdoor Recreation in California, a study conducted every 5 years to better understand Resident’s recreation habits, shows strong support for water-related activities. Nearly 79 percent of the respondents indicated that the availability of lakes, reservoirs, rivers, and wetlands was an important factor in their overall enjoyment of their favorite recreation activity. Slightly more than 80 percent of the respondents indicated that more outdoor recreation areas, such as picnic and camping sites, are needed at lakes and reservoirs

Potential Benefits of Water-dependent Recreation

Water-dependent recreation provides a wide range of health, social, and economic benefits to California residents and visitors, while improving the quality of life. It encourages physical activity, such as swimming and paddling, as well as walking and bicycling along attractive waterside trails.

Water-dependent recreation has a major influence on California’s economy - influencing tourism, business and residential choices. As on of the most popular expenditure based activities, water-dependent recreation contributed to attracting 67 million out-of-state and international visitors to California in 2006. In 2007, it contributed to the $96 billion spent directly on travel which created the greatest number of jobs in the accommodations and food service field (534,000) and the arts, entertainment and recreation field (226,500).

The purchasing of recreation equipment and permits also has a major impact on the economy. In 2007, more than 900,000 boats were registered in California. Sales of sportfishing licenses and stamps generated more than $63 million in annual revenue for the Department of Fish and Game in 2007. Water-dependent recreation prompts long-term investments, creates jobs, increases property value and is a deciding factor in business and residential decisions. By marketing the recreation component of a water facility, agencies can gain public support.

PLACEHOLDER: Figure #2 Economic output to California from freshwater fishing by licensed anglers

[Explore Environmental Benefits– fosters environmental stewardship and motivates public involvement. Water feature tied with interpretive center]

[Explore beneficial effects on Climate Change and Flood Management. Create water transfer and storage facilities that are closer to a natural ecological system like the San Antonio River Walk and the Reno Walk.]

Potential Costs of Water-dependent Recreation

Initial development costs of recreation facilities can vary with the size of the project. Generally, 3 percent to 6 percent of total project costs are allocated for development of permanent recreation facilities. For example, the capital cost of recreation sites on the State Water Project is about 3 percent of all capital expenditures for the SWP. Annual maintenance costs are just over 3 percent of the initial development costs of recreation facilities.

[Explore cost estimates for Operation & Maintenance – vary with each facility and its individual characteristics]

[Explore options for working towards sustainability?]
Major Issues Facing Water-dependent Recreation

Funding

Funding concerns usually transcend all other issues affecting outdoor recreation, including water-dependent recreation. These funding issues fall into two categories: (1) planning and development of new recreational sites associated with water projects, and (2) operation and maintenance of recreation sites once they are in place. When new dams, reservoirs or canals are being built, there may not be enough money to fully incorporate recreation. One reason for this is that the beneficiaries of recreation may be different from the other beneficiaries of the water project, requiring complex funding mechanisms to fully support recreation planning. This is a significant issue in State Water Project planning: The Davis-Dolwig Act specifies that water users shall not be charged for the cost of recreation facilities, but other funding mechanisms have not always been made available. Maintenance of recreation facilities may be more susceptible to funding cuts during poor economic conditions than for other resources thought to be more essential. Without reliable funding, it is difficult for recreation providers to deliver quality, consistent and relevant facilities and services to meet growing demand. Many park and recreation providers have taken steps to reduce programs and operating costs to become more efficient on leaner budgets by raising fees and charges, reducing or eliminating services, delaying equipment purchases, and deferring land acquisition, facility developments, rehabilitation and renovation of aging infrastructure. Inconsistent funding also makes it difficult to plan for services and reduces the willingness of many service providers to offer new programs or to take risks.

Impacts to Natural Resources

Natural resource values often define the character and aesthetic appeal of a water-dependent recreation, making it desirable and interesting to visitors. Overuse, misuse, and poorly planned uses of any recreation resource can degrade natural resource values and recreational experiences. Creating water transfer and storage facilities that are closer to a natural ecological system like the San Antonio River Walk and the Reno Walk could help mitigate some of these impacts. By building programs with natural processes and recreating water recreation facilities closer to a natural system the ecosystem will be able to recover faster from the impacts of over-use.

Water levels and stream flow also contribute to the impacts on the natural resources and the recreation experience. The amount or timing of streamflow is regulated through water transfer schedules. This may have a good or bad effect on recreation. Water managers should consider the effects of their actions on all resource values, including recreation as well as ecosystem health. Increasing numbers of visitors pursuing outdoor recreation threatens the proper functioning of ecosystems, disrupts and displaces wildlife, and degrades the natural, environmental, and aesthetic quality of an area and ultimately the very recreational experience being sought. In addition, visitors unfamiliar with ecological processes or environmental ethics are often unaware of the consequences of their actions.

Water Quality

Water quality can affect and be affected by water-dependent recreation. Poor water quality can have a negative impact on water-dependent recreation. A source of contamination is untreated sewage escaping from treatment facilities or broken sewer lines that have led to the highly publicized closure of public beaches. Another source is fertilizers and chemicals from agricultural runoff that also contribute to the problem. Contaminated lakes, rivers, and streams not only
present health risks to those participating in water-contact recreation, but they can significantly diminish the recreation experience. Also, low water levels and over-use will significantly impact the water quality. In reverse, the negative effects water-dependent recreation can have on water quality are also of concern. Human-source contamination, such as body contact, untreated sewage, and petroleum products discharged from houseboats and other pleasure craft can be a significant problem to water meant for drinking.

**Coordination**

Funding and impacts to natural resources are exacerbated by the lack of coordination between those who manage water resources and those who provide recreational services. All too often, agencies are limited in scope and effectiveness in recognizing and mitigating trends affecting resource conditions, particularly outside their immediate jurisdiction. While partnerships and cooperation between agencies, organizations and individuals have grown, efforts at the watershed or landscape level are often fragmented, and opportunities are missed to achieve broader goals, placing both resources and the public at risk.

[Need to express the intrinsic value of water-dependent recreation to both the public and water managers through research, partnerships, and consistency between state plans.]

**Climate Change**

As our climate changes, so does the management of and demand on our resources. Temperatures fluctuate creating the increased risk of catastrophic wildfire and the potential lose of natural resources such as ecosystems, species, habitats and communities. Temperature, rainfall and water-level changes also impact visitor use and their demands. Ideas need to be explored to help recreation providing agencies adapt to the demands of the changing climate.

**Flood Management Control**

Linking recreation facilities to integrated flood and regional water management has also been explored. Ideas include establishing green environments, like trails and parkways, and restoring greenways instead of concrete channels as part of flood control facilities. Creating facilities that are closer to a natural ecological system can provide both recreation opportunities and water and natural resource sustainability. Some good examples are Bidwell State Park, the San Antonio River Walk and the Reno Walk. All took a water transfer system and developed a user friendly environment that included greenways with walking paths, trails and open space.

[LA river project – restoration partner with flood side]

**Recommendations to Facilitate Water-dependent Recreation**

1. In developing water-dependent recreation opportunities, jurisdictions should consider public needs as identified in the California Outdoor Recreation Plan.

2. Use existing data and new surveys to determine recreational needs that might be met by incorporating recreation more fully into new state and regional water project planning.

3. Develop closer working relationships among DWR, DFG, and Parks so that recreation planning is incorporated appropriately into CALFED program planning.
4. Conduct, and periodically re-examine, scientifically valid studies of the carrying capacity of proposed and existing sites for water-dependent recreation to help prevent degradation of water quality and wildlife habitat. Use data collected by other agencies, such as the U.S. Bureau of Reclamation, U.S. Army Corps of Engineers, and the Federal Energy Regulatory Commission, such as the results of FERC Relicensing studies.

5. Collect data on visitation rates vs. reservoir water levels and downstream flow rates, and use this data to help optimize the timing of water that is released or held for recreation.

6. Develop partnerships with universities to coordinate the monitoring of public recreation use, equipment and emerging outdoor and water-dependent recreation trends. Create partnerships with education providers to educate youth about preserving and protecting natural resources.

7. Promote and establish effective partnerships between federal agencies, state and local governments, and the private sector for operation, maintenance and law enforcement of water recreation sites.

8. Coordinate with the Department of Fish and Game in exploring the use of funding from the Bay-Delta Sport Fishing Enhancement Stamp to integrate new and improved public angling opportunities. (Update Recommendations)

[Create more explicit recommendations]

[Identify some indicators, metrics & performance measures to evaluate the recommendations]

Work to maintain consistency between the Water Plan and other Agency reports such as the California Outdoor Recreation Plan and the Central Valley River Study.

Central Valley Vision – Includes efforts to improve water quality, increase access and develop additional facilities. The Central Valley River Study explores the recreation resources and conducts a gap analysis along various valley rivers.

Proposes to study water recreation impacts on local economies, such as the effects of lake levels and peak levels on the economy.

Selected References

California Department of Parks and Recreation, “Public Opinions and Attitudes on Outdoor Recreation in California 2007,” currently being updated

California Department of Parks and Recreation, “California Outdoor Recreation Plan 2007,” currently being updated

Public Research Institute, “Survey of Boat Owners in California”


Online Sources of Information

• Department of Fish and Game, License and Revenue Branch, www.dfg.ca.gov
• American Sportfishing Association, www.asafishing.org
• California Department of Tourism, www.gocalif.ca.gov
[Some additional ideas to explore - Have marketing & economic studies. Extra step to reach underserved communities including consultation with tribes. Location of facilities especially in relation to cultural sites. Funds from hydro fees for disadvantaged. Fees affect access. Different charges for different uses. Urban water features?, DWR survey – new hydro. IRWMS – have water bodies. Identify/survey to do proactive restoration. Based on water level (flooded) different recreation opportunities available. User days-cross cutting. Part of ecosystem. Water management, e.g. delta – (Delta Vision) has commercial value. Companion plan – consistent with recreation plan. Take metrics from survey for project development]