

1.0 Introduction

CHAPTER

1

The South Fork American River (SFAR) watershed is situated on the western slope of the Sierra Nevada east of Sacramento. The 55-mile-long watershed encompasses diverse landscapes within a relatively small area due to extreme elevation ranges extending from the headwaters at about 10,000 feet to the river's terminus with Folsom Reservoir below 500 feet (see Figure 1-1). The majority of the watershed is located within El Dorado County with portions of the upper watershed in Amador and Alpine counties. The upper elevations of the watershed fall primarily within the jurisdiction of the Eldorado National Forest (ENF).

The scenic beauty and diversity of the landscapes combined with the wealth of natural resources found in the watershed attract many people to the region. However, the diverse and sometimes competing interests in the resources of the SFAR watershed pose significant challenges for natural resource managers. Listed below are some critical facts concerning the SFAR watershed:

- Gold was first discovered along the SFAR in 1848 which triggered the **California Gold Rush**. The SFAR watershed houses numerous sites of cultural significance and provides habitat for traditional native plant uses (berries, reeds, etc.).
- A 37-mile stretch of the SFAR, from Slab Creek Reservoir Dam to Folsom Lake, is included on the State Water Resources Control Board **303(d) list for mercury contamination**.
- The SFAR is a **headwaters to the Delta**, an area of extreme concern to the State of California.
- The City of Placerville, which is the only incorporated city in the SFAR watershed and El Dorado County seat, qualifies as a **disadvantaged community** with a median household income less than 80 percent of the statewide median annual income (US Census Bureau 2000). Restoration of Hangtown Creek and preservation of the historic Main Street are essential to the community of Placerville.
- El Dorado County is one of the **fastest growing counties** in California with growth concentrated in Cameron Park and El Dorado Hills (EDC Chamber of Commerce n.d.a).
- The ENF is a designated "Urban Forest," located within a two-hour drive from a major metropolitan area with a population over one million. The accessibility of the SFAR watershed combined with the beauty of the landscapes results in heavily used recreation areas. Recent recreation surveys indicate **over half of the summer recreationists** in the Crystal Basin **reside in Sacramento County and the Bay Area** (SMUD 2005).

- **Desolation Wilderness**, located in the upper reaches of the watershed, is one of the most heavily used designated Wilderness Areas in the United States (USFS 1998).
- The SFAR watershed is a popular travel destination. As of 2005, El Dorado County ranked **first in travel expenditures** among the twenty Northern California counties (Center for Economic Development (CED) 2007).
- The SFAR is the **#1 most boated class III whitewater river in California** and the third most heavily used whitewater rafting river west of the Mississippi River (American Canoe Association website).
- The habitats and plant communities of the watershed are diverse, and many are threatened due to increasing use and development. The California Natural Diversity Database (CNDDDB) shows occurrences of 59 species and one habitat of special concern within the SFAR planning boundary. **Six plant species and six animal species found within the SFAR watershed have official Federal or State listing** as threatened or endangered (CNDDDB 2008).
- The hydroelectric projects within the SFAR watershed provide enough combined energy to **power to approximately 354,730 homes throughout California** (assuming 8000 kwh per household). Hydroelectric energy is defined as a renewable resource, and small hydro projects (less than 30 MW) were recently identified as a means to reduce greenhouse gas emissions by the State of California and the California Public Utilities Commission (Assembly Bill (AB 32) – Global Warming Solutions Act of 2006). Hydropower generated from the SFAR watershed **offsets approximately 2.14 metric tons of carbon dioxide (CO₂)** emissions per year, as compared to generation produced by coal-burning fuel projects (Francfort 1997).
- Approximately **80 percent** of the water originating in the watershed and in El Dorado County is transported out of the watershed to serve other communities. However, due to increasing demands for water and the anticipated hydrologic effects of climate change, a **water supply shortage is projected in the County by 2025** or sooner (EDCWA 2008).
- From 1992 to 2003, El Dorado County ranked as the **second highest timber production in the Sierra Nevada**, second only to Plumas County (USFS website data).
- There are **eleven “Communities at Risk”** within the watershed. These are communities at elevated risk from wildfire events, and are officially listed by the National Fire Plan (2001) and the California Fire Alliance (2008).

The biggest challenge for the watershed identified by the SFAR Watershed Group is that of increasing demands from residents, recreationists and tourists. The specter of climate change also poses significant potential effects to almost every facet of the SFAR watershed including water supply, flood control and fire. The challenges from these and other concerns make the SFAR Watershed Plan (Watershed Plan) an important management tool for both regional resource managers and citizens. The following chapters describe in detail the existing conditions of the SFAR watershed followed by an implementation plan to carry out the Goals and Objectives for the watershed identified by the SFAR Watershed Group.

1.1 Purpose and Scope

This Watershed Plan addresses the geographic, thematic and institutional barriers and gaps inherent in the patchwork of existing mandatory plans such as General Plans and Land and Resource Management Plans. This Watershed Plan also provides a catalyst to guide various agencies and stakeholders to achieve common goals. For example, the El Dorado County Stormwater Management Plan requires partnership with a Watershed Plan to implement the Storm Water Best Management Practices (BMPs).

One of the primary purposes of this planning effort is to link the localized or single-issue mandatory plans that guide water resources management in select parts of the SFAR watershed into a comprehensive Watershed Plan that will be relevant now and into the future. It is the intention of this Watershed Plan to identify and fill in the management gaps left by an assortment of mandatory natural resource management plans.

This Watershed Plan also builds from the foundation established by the Cosumnes, American, Bear, and Yuba Rivers (CABY) Integrated Regional Water Management Plan (IRWMP), which provides direction from a regional perspective. This Watershed Plan is designed to fit seamlessly into the regional framework described by the CABY, which is supported by over 80 region-wide organizations and four major water agencies. This Watershed Plan will help to achieve the goals and objectives described by the CABY, while adding more specific detail concerning the SFAR watershed.

The SFAR Watershed Group provides oversight and direction to this project. Participants pledge to work toward the realization of the following mission statement:
[t]o protect and improve the condition of the SFAR watershed, through agency and community cooperation, for the benefits of the environment and social well-being.

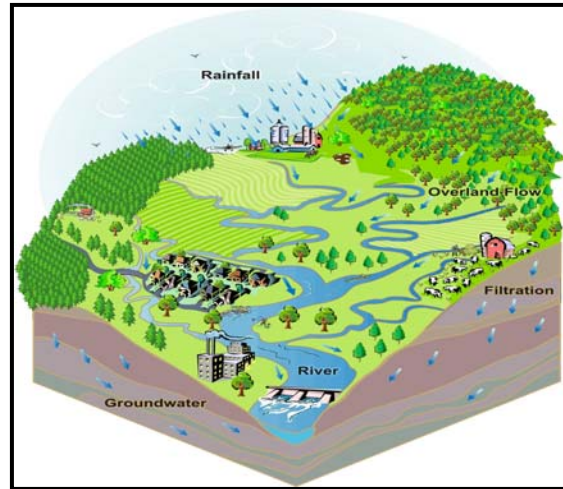
The purpose of the Watershed Plan includes the following:

- define current water resources and environmental conditions;
- document key issues, challenges, and potential sources of conflict;
- identify management goals and objectives, addressing issues of water quality, water supply, environment and habitat, social and cultural, flooding, fire, and air quality;
- establish tools for addressing climate change – both for mitigation and adaptation;
- identify opportunities for agency collaboration and public outreach and education;
- and,

- establish an ongoing planning framework and management structure from which local water management policies, projects, and programs can be formulated and implemented.

1.1.1 Why Watershed-based Planning?

A watershed is defined as “the region draining into a river, river system, or other body of water upstream of a particular point” (California Bay-Delta Authority 2005). A watershed is a geologically defined area with topographic boundaries in which all surface waterways flow in one direction and drain into a common basin. A watershed includes all of the biotic organisms and communities as well as the abiotic entities contained within those topographic boundaries (see diagram above). Small drainage basins generally contribute to streams, while waters from larger drainage basins come together to form rivers.



This **watershed diagram** shows how the rainfall in one watershed all drains to a common sink (the streams and then the rivers), and also displays various land uses and considerations (agricultural, urban areas, and forested land).

Watersheds provide a useful, natural unit for better understanding and protection of lakes, rivers, and streams. For a Watershed Plan to be effective it must address not only the current condition of the watershed but the sources of watershed impacts and potential solutions as well (California Bay-Delta Authority 2005).

Watershed-based planning is becoming the planning method of choice for natural resource management throughout the state of California, and indeed internationally. According to the United States Environmental Protection Agency (USEPA), watershed-based planning “...is the most effective framework to address today’s water resource challenges.” This is the case for a number of reasons. Watershed planning involves the diverse cross-section of stakeholders in the planning process, resulting in an outcome that is exhaustive in depth, breadth, and universally agreeable in nature. Because the stakeholders are involved, a more organic, hands-on, and practical approach is taken, with project needs identified by those who have a personal investment in the resources of that particular region. As a result of this involvement, management activities can be defined through a strategic approach, integrating multiple State, federal, and local programs, public and private resources, varying degrees of expertise and experience, and adaptive management techniques for all water resource management goals.

1.2 Background

In past decades, various local, State, and federal agencies, as well as private organizations, planned and executed land and water resource plans and management

prescriptions with little coordination. This piecemeal planning sometimes limited the range of potential solutions to the watershed’s most pressing conflicts and increased the potential for competition amongst managers and user groups.

In November 2000, the Georgetown Divide Resource Conservation District (GDRCD) organized the first meeting of the SFAR Watershed Group. Watershed Group participants came together for the purpose of identifying key issues within the SFAR watershed. The result of this work was the SFAR Watershed Stewardship Strategy (GDRCD 2003). The Stewardship Strategy identified fuels management and water quality as two of the most pressing issues in the SFAR watershed and developed a modeling tool to identify priority sub-basins where these two issues overlapped. The groundwork completed by the SFAR Watershed Stewardship Strategy is integral to this Watershed Plan.

Today, the SFAR Watershed Group is facilitated by the El Dorado Irrigation District (EID) and the group continues to meet on a monthly, or as-needed basis. The SFAR Watershed Group participants contributing to this Watershed Plan include representatives from regional water suppliers, power providers, federal land managers, State organizations, tribes, and watershed conservation groups with interests in the SFAR watershed. The table below includes a list of participants in the SFAR Watershed Group. This round-table offers a means for all interested citizens to express their concerns for natural resource issues in the watershed and to provide input into and guide implementation of the Watershed Plan.

Organization
American River Conservancy
El Dorado County Resource Conservation District
California Native Plant Society
City of Placerville
Cosumnes, American, Bear, Yuba
El Dorado County
El Dorado County Water Agency
El Dorado Irrigation District
EN2 Resources, Inc.
Environmental Protection Agency
Georgetown Divide Resource Conservation Districts
Sacramento Municipal Utility District
Central Valley Water Resources Control Board
El Dorado National Forest

The SFAR Watershed Group hopes to further this collaboration by working together on issues as diverse as water quality data management, urban storm water runoff issues, and recreational concerns. A large portion of the SFAR watershed falls under federal jurisdiction making USFS participation essential for an effective and enduring plan. Likewise, watershed planning cannot occur without the participation of regional water agencies and State entities. Completing the natural resources planning circle are the

tribes, citizens' groups, and interested parties essential to making a watershed plan truly comprehensive; these groups add practical perspectives, regional history, and essential details to the process.

1.3 Planning Process

The Watershed Plan is “issues driven” in that the current and future conditions, problems, and concerns in the SFAR watershed form the basis for the Goals, Objectives, and implementation actions of the plan. Goals outline the desirable conditions or solutions to the issues, the Objectives identify how the Goals may be attained, and actions are specific tasks designed to meet the objectives. Thus, this Watershed Plan was developed through a set of iterative steps illustrating the logical sequence from water resource issues to the broad goals and specific actions.

This Watershed Plan also provides a planning framework and management structure from which local water and other natural resource management policies, projects, and programs can be formulated, evaluated, integrated and implemented. By building on the wealth of hands-on watershed restoration experience, project-scale monitoring, and institutional capacity it will become possible to expand water management and planning to larger scales when conflicts require larger scale solutions.

One of the regional water management priorities identified in the CABY IRWMP is to build analytical, institutional, and experiential linkages. Within the SFAR watershed, these linkages integrate existing plans, established groups, and management and development processes in part through oversight provided by the SFAR Watershed Group. The assimilation of local plans into both the Watershed Plan and the CABY IRWMP will result in optimal resolution of water management conflicts in the region.

1.3.1 Agency Support

Stakeholder involvement in the SFAR Watershed Group is democratic and unstructured. Sponsoring organizations for the Watershed Plan process include the EID, ENF, and the GDRCD. These organizations work collaboratively to plan and facilitate the meetings, provide materials, and they have pledged at least one representative from their respective organizations present at every meeting.