Tuolumne Wild and Scenic River
Draft Outstandingly Remarkable Values

Ecologic Values

From the alpine headwaters of the Tuolumne River, through the river's steep descent into the Sierra Nevada foothills, interactions among geologic, hydrologic, and biologic processes sustain a rare diversity of robust, interrelated, and largely intact ecosystems. The entire river corridor is either within or surrounded by designated Wilderness, which protects the ecological integrity of these systems.

The unusual extent and influence of glaciation in the Tuolumne River corridor has resulted in extensive low-relief areas, primarily meadows, separated by steep sections of river flowing over bedrock. This *stairstep morphology,* in combination with exceptional water quality, a seasonal flood regime, and a largely undisturbed river corridor, sustains systems that are remarkable in their size and diversity:

Geologic Values

Exceptionally Well-Preserved Evidence of Glacial Processes

Exceptionally well-preserved geologic features illustrate the unusual extent of glaciation in the Tuolumne River corridor and provide some of the best evidence of glacial processes in the entire Sierra Nevada:

- The Tuolumne River corridor represents one of the most extensive examples of stairstep river morphology in the Sierra Nevada.
- The geomorphology of Lyell Canyon provides a textbook example of a meandering river through a glaciated U-shaped valley.
- Dramatic evidence of glaciation along the Dana Fork, Tuolumne Meadows, and the Grand Canyon of the Tuolumne includes glacial erratics, moraines, roches moutonnées, striations, hanging valleys, and some of the best examples of glacial polish in the United States.
- Poopenaut Valley contains the lowest elevation evidence of glaciation found anywhere in the western Sierra Nevada.

Hydrologic Values

Exceptional Water Quality

The exceptional water quality of the headwaters of the Tuolumne River, along the Lyell and Dana Forks, is maintained throughout the river corridor.

Exemplary Diversity of Hydrologic Features

Largely intact hydrologic processes in the Tuolumne River corridor create a diversity of exceptional hydrologic features:

- One of the most extensive examples of stairstep river morphology in the Sierra Nevada creates a series of spectacular cascades and waterfalls between Tuolumne Meadows and Hetch Hetchy Reservoir.
- Unusual glacial kettle ponds are located along the Dana Fork.
- A classic and well-known example of an alkaline spring occurs at Soda Springs.
- Seasonal flooding at Poopenaut Valley sustains an unusual diversity of riparian habitats.

Ecosystem Values

Intact Ecosystems Providing Habitat for a Remarkable Diversity of Species

The interrelated and largely intact ecosystems along the Tuolumne River corridor provide habitat for a remarkable diversity of native plants and animals, including special-status species. Largely intact hydrologic and biologic processes contribute to the integrity these of river-related ecosystems:

- Alpine habitat along the Lyell and Dana Forks, characterized by high plant diversity, is important for numerous plant and animal species, including migratory bird populations and special-status plant, amphibian, and small mammal species.
- Habitat for localized populations of special-status plant species is maintained at mineral springs in Lyell Canyon and Tuolumne Meadows.
- The subalpine meadow systems at Tuolumne Meadows, Dana Meadows, and the meadows along the Lyell Fork sustain an exceptional diversity of river-related habitat types for plant and animal species, including migratory bird populations and special-status plant, amphibian, and bat species.
- Intact river-dependent habitat types, such as pools, riffles, and steep cliffs, between Tuolumne Meadows and Hetch Hetchy Reservoir support a diverse assemblage of species, including special-status bird and bat species.
- Largely intact low-elevation riparian and meadow communities provide habitat for an exceptionally diverse assemblage of bird species and several special-status bat species at Poopenaut Valley., one of the few undeveloped low-elevation meadow/wetland complexes in the region.

Some of the Most Extensive Subalpine Meadow and Riparian Complexes in the Sierra Nevada

Unusually large basins of alluvial fill, perennially high groundwater conditions, seasonal flooding, and active channel migration combine to sustain some of the most extensive subalpine meadow/wetland complexes in the Sierra Nevada at Tuolumne Meadows, Dana Meadows, and along the Lyell Fork.

Sociocultural Values

The Tuolumne River's unique combination of prehistoric, historic, scenic, and recreational values distinguishes it from other rivers in the Sierra Nevada and throughout the nation. The sociocultural values of the Tuolumne River corridor extend back at least 6,000 years and span hundreds of generations of diverse groups of people. Visible evidence testifies to the evolving importance of the river corridor as a seasonal hunting and gathering ground, a trans-Sierra trade and travel route, a destination for recreation and leisure, and a place to connect with nature in a wilderness setting.

From prehistoric to historic times, people have developed powerful and enduring relationships with the Tuolumne River corridor. The corridor plays a significant role in maintaining cultural traditions among groups of American Indian people. In a contemporary context the corridor engenders deep personal connections and has figured prominently in the lives, stories, and traditions of generations of visitors.

Prehistoric and American Indian Cultural Values

Regionally Significant Arhceolgoical Evidence of Prehistoric Travel, Trade, and Settlement

Archeological sites with regionally significant research potential provide evidence of travel, trade, and settlement by groups of American Indian people dating back at least six thousand years. These sites are eligible or potentially eligible for listing on the National Register of Historic Places. The oldest known sites, which are found along the Dana Fork, provide evidence of continuous human use and possible environmental change in the region.

- Tuolumne Meadows and the Grand Canyon of the Tuolumne are flanked by concentrations of pre-contact archeological sites containing materials that are uncommon in the region.
- Pre-contact archeological sites in the low-elevation flats, particularly Poopenaut Valley, represent possible year-round use by groups of American Indian people.

PHOTO NEEDED

Prehistoric Resources Important for Maintaining the Cultural Traditions of American Indian People

Traditional use sites and features that are important for maintaining cultural traditions of American Indian people are found along the Lyell and Dana Forks, in Tuolumne Meadows, at Pate Valley, and below Hetch Hetchy Reservoir.

Historic Values

Nationally or Regionally Significant Evidence of Historic Trade, Travel, Settlement, Recreation, and Early Conservation Activism

The Tuolumne River corridor contains numerous sites that are listed (or eligible or potentially eligible for listing) on the National Register of Historic Places as places of regional or national significance:

- Historic sites along the Lyell and Dana Forks attest to their status as regionally important trade and travel routes between the eastern and western Sierra.
- Historic sites in Tuolumne Meadows commemorate the significance of this area as a place inspiring conservation activism on a national scale.
- Historic landscape features and structures associated with the High Sierra Camp Loop represent the development of a distinctive kind of high-country touring that remains unique within the National Park System.
- Some of the finest examples of historic trail stonework in the nation are found below Tuolumne Meadows.
- Historic landscape features and structures below Hetch Hetchy Reservoir provide evidence of early Euro-American settlement.

Scenic Values

Magnificent Scenery with a Character Unique to the Tuolumne River Corridor

A glacially carved, snow-capped landscape, through which the Tuolumne River alternately meanders across wide meadows and cascades down steep canyons, creates magnificent scenery with a unique character that people equate with Tuolumne River corridor:

- The largest glacier on the western flank of the Sierra Nevada is part of the spectacular high-country views from the Lyell Fork.
- Breathtaking views along the Lyell Fork, Dana Fork, and Tuolumne Meadows encompass the meandering river, adjacent meadows, glacially carved domes, and rugged mountain peaks.
- The low-relief topography at Tuolumne Meadows and Dana Meadows allows for magnificent skyward views, including some of the best views of dark night skies in the Sierra Nevada.
- Views within the Grand Canyon of the Tuolumne include steep canyon walls, hanging valleys, and dramatic cascades of falling water.
- The stretch of river below Hetch Hetchy Reservoir offers stunning views of verdant meadows, a glacially carved bedrock valley, large river pools, dramatic canyon walls, and a constricted slot canyon.

Recreational Values

Outstanding Opportunities for a Diversity of Experiences Characterized by Primitive, Unconfined Recreation

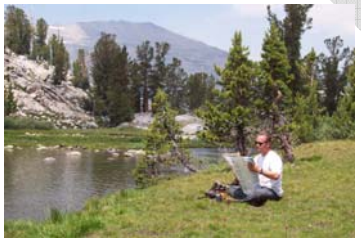
The untrammeled character of the river corridor, most of which is in designated Wilderness, provides outstanding opportunities for a diversity of experiences characterized by primitive, unconfined recreation in a landscape dominated by natural scenery and soundscapes:

- The Pacific Crest Trail, which follows the Lyell Fork and the Tuolumne River through Tuolumne Meadows, offers opportunities to travel one of the country's eight National Scenic Trails.
- The rustic high-country lodging available along the Dana Fork, in Tuolumne Meadows, and above the Grand Canyon of the Tuolumne offers a distinctive type of recreation that is unique in the National Park System.
- The Grand Canyon of the Tuolumne offers exceptional opportunities for backcountry excursions through a deep, rugged, and seldom-traveled gorge.
- The recreational opportunities below Hetch Hetchy Reservoir are unusual due to the relative rarity of low-elevation designated Wilderness elsewhere in the Sierra Nevada

Outstanding Recreational and Educational Opportunities for People of All Ages and Abilities at Tuolumne Meadows

A wide range of recreational opportunities attract people of all ages and abilities to Tuolumne Meadows, where many individuals, families, and groups establish traditional ties with the area. The National Park Service and other organizations focus on the river and adjacent meadows as a centerpiece of nature interpretation and education in the Sierra Nevada.

Scientific Values



Invaluable Opportunities to Examine Natural and Cultural Resources with High Research Value

The largely undisturbed river corridor provides invaluable opportunities to examine ecologic and sociocultural resources with high research value.

- Relatively intact Sierra river ecosystems provide crucial baseline data and basic information on how components of natural and social systems interact and respond to perturbation (e.g., climate change).
- The entire river corridor is either in or surrounded by designated Wilderness, which is critical to protecting the integrity and maintaining the scientific value of these resources.