From alpine headwaters to a cascading descent through the Grand Canyon of the Tuolumne and into the Sierra Nevada foothills, the Tuolumne River sustains a rare diversity of interrelated and largely intact ecosystems, spectacular geology, and an archaeological link between past and contemporary traditions. The river offers unparalleled scenery, opportunities for solitude and wilderness-oriented recreation, and the opportunity to visit Parson’s Lodge, which witnessed the birth of a movement that in turn inspired conservation activism and protection of the natural world on national and global scales.

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### HIGHLIGHTS OF THE DRAFT PLAN

- Restoration of Tuolumne Meadows through removal of informal trails, projects to restore riparian vegetation to riverbanks, elimination of facilities from meadow and riparian areas, and mitigation of hydrologic impacts caused by historic trail segments
- Elimination of roadside informal parking to discourage social trailing and its associated effects on meadow and riparian areas
- Renovation of Tuolumne Meadows campground

### HOW TO NAVIGATE THE PLAN

There is no substitute for the level of detail found in the entire document. For those who have time, reading the Tuolumne River Plan draft environmental impact statement (DEIS) cover-to-cover will convey the fullest understanding of the Plan. However, knowing that most individuals do not have the time or interest to read the full document, park staff suggest the following:

For those interested in an overview of the plan, park staff suggest you begin with:

- This Reader’s Guide
- Executive Summary from the Draft Environmental Impact Statement
- Chapter 6: Visitor Use and Capacity
- Selections from Chapter 7: a) Actions Common To Alternatives 1–4, and b) Alternative 4 (Preferred)

For those interested in more in-depth reading, park staff suggest you read the above sections as well as the following portions of the plan:

- Chapter 2: Purpose and Need
- Chapter 5: Outstandingly Remarkable Values
- Chapter 7: Alternatives (all)
THE TUOLUMNE RIVER PLAN

GOALS OF THE TUOLUMNE RIVER PLAN

• Protect and enhance the river values for which the Tuolumne was designated Wild and Scenic
• Describe alternatives for managing the Tuolumne Wild and Scenic River for the next 15–20 years
• Describe the existing resource conditions including outstandingly remarkable values, water quality, and free-flowing condition
• Address user capacities by identifying the appropriate kinds and amounts of use that protect river values
• Address water quality issues and instream flow requirements
• Address development and maintenance of lands and facilities
• Reflect a collaborative approach with all stakeholders

HOW TO STAY INFORMED AND INVOLVED

The National Park Service is committed to a collaborative, interdisciplinary planning process that offers a number of opportunities for in the planning process. Stay informed about this and other park plans through the Internet, the park’s electronic newsletter, open houses, and Facebook.

Learn more about this plan, including open house dates and other information at the Tuolumne River Plan website at www.nps.gov/yose/parkmgmt/trp.htm. You can also follow this and other park plans on Facebook at www.facebook.com/YosemiteNPS.

Comment on this draft environmental impact statement by visiting the Tuolumne River Plan Planning, Environment, and Public Comment (PEPC) website at http://parkplanning.nps.gov/yose_trp. Comments made through this website are easiest for park planners to use. Comments can also be submitted by email to yose_planning@nps.gov or by U.S. mail sent to the following address:

Superintendent, Yosemite National Park
Attn: Draft Tuolumne River Plan
P.O. Box 577
Yosemite, CA 95389
DEVELOPMENT OF THE TUOLUMNE RIVER PLAN

Park planners have solicited and considered the interests and concerns of a number of groups during development of the Tuolumne River Plan through public meetings, workshops, and other opportunities to comment. These groups included the public; NPS managers; culturally associated American Indian tribes; and other federal, state, and local agencies. In all, more than 120 public meetings and presentations on the Tuolumne River Plan have taken place during the plan’s development. Public input will continue to be important to the success of the Plan.

- Held public meetings to identify scope of plan; defined boundaries, classifications, and river values; invested in science
- Reported baseline conditions, identified management concerns, and proposed actions to address effects to river values
- Identified infrastructure, facilities and services to represent an array of visitor experiences that are protective of river values
- Created a range of draft alternatives and analyzed potential environmental and socioeconomic impacts
- Hold public workshops and collect public comment on draft alternatives
- Further refine draft alternatives based on public comment
- Release Final Environmental Impact Statement, Record of Decision

2007
- WE ARE HERE

2008
- 2009
- 2010

2013
- SUMMER
- FALL
Chapter 1: The Tuolumne Wild and Scenic River describes the purpose of the nation’s wild and scenic rivers system and what the designation of the Tuolumne River as part of that system means in terms of river planning and management.

Chapter 2: Purpose of and Need for the Tuolumne River Plan describes the purpose, need, and organization of the plan, the major planning issues identified during internal and public scoping, and the interrelationships with other plans and projects.

Chapter 3: Wild and Scenic River Corridor Boundaries and Segment Classifications explains the legal requirements for establishing a river corridor boundary and classifying its segments, and describes how these were applied for the Tuolumne River in Yosemite.

Chapter 4: Section 7 Determination Process for Water Resources Projects explains the legal requirements for protecting the river’s free-flowing condition and steps that will be taken to ensure this.

Chapter 5: River Values and Their Management explains the Tuolumne River’s outstandingly remarkable values (ORVs), describes their baseline conditions, identifies management objectives and concerns that need to be addressed, and actions that will be taken to protect and enhance these ORVS.

Chapter 6: Visitor Use and User Capacity explains the legal requirements for establishing a user capacity for the river corridor, and how that capacity relates to overall visitor use, including services, facilities, and management strategies.

Chapter 7: Alternatives for River Management describes four action alternatives for the Tuolumne Wild and Scenic River Draft Comprehensive Management Plan as well as the current conditions (no action alternative). The differences among the alternatives revolve primarily around different types and levels of visitor use.

Chapter 8: Affected Environment and Environmental Consequences evaluates and compares how the alternatives presented in Chapter 7 could affect the human environment and natural and sociocultural resources within the Tuolumne River.

Chapter 9: Consultation and Coordination summarizes the history of consultation, coordination, and public scoping and involvement through every step of the development of the plan alternatives, and lists the agencies, organizations, and businesses that received the draft plan and environmental impact statement.
The Tuolumne River was designated Wild and Scenic by Congress in 1984. The Wild and Scenic Rivers Act (WSRA) stipulates that land managers must protect and enhance a river’s free-flowing condition, water quality, and the “outstandingly remarkable values” or unique characteristics that make the river worthy of protection under the act. ORVs are the truly exemplary characteristics of the river that make it worthy of inclusion in the National Wild and Scenic Rivers System. Listed below are the Outstandingly Remarkable Values of the Tuolumne River.

Biological
- In Tuolumne Meadows, Dana Meadows, and along the Lyell Fork, the Tuolumne River sustains one of the most extensive Sierra complexes of subalpine meadows and riparian habitats with relatively high biological integrity.
- Poopenaut Valley contains a type of low-elevation riparian and wetland habitat that is rarely found in the Sierra.

Geologic
- Between Tuolumne Meadows and Pate Valley, the Tuolumne River demonstrates classic stairstep river morphology, repeatedly transitioning from calm stretches to spectacular cascades.

Cultural
- The rich archeological landscape along the Tuolumne River reflects thousands of years of travel, settlement, and trade.
- Parsons Memorial Lodge, a national historic landmark sited near the Tuolumne River, commemorates the significance of this free-flowing segment of the river in inspiring conservation activism and protection of the natural world on a national scale.

Scenic
- Lyell Canyon offers remarkable and varied views of lush meadows, a meandering river, a U-shaped glacially carved canyon, and surrounding peaks.
- Dana and Tuolumne Meadows offer dramatic views of a meandering river, adjacent meadows, glacially carved domes, and the Sierra Crest.
- The Grand Canyon of the Tuolumne offers views of a deep, rugged canyon with vast escarpments of granite, hanging valleys, and tall cascades of falling water.

Recreation
- The Tioga Road across the Sierra provides rare and easy access to high-elevation sections of the Tuolumne River through Tuolumne and Dana Meadows.
- Wilderness travelers along the Tuolumne River engage in a variety of activities in an iconic High Sierra landscape, where opportunities for primitive and unconfined recreation, self-reliance, and solitude shape the experience.
The National Environmental Policy Act (NEPA) requires federal agencies to rigorously explore a range of reasonable alternatives when planning for a major federal action. Using a full complement of park personnel (including experts in park operations, facilities, and cultural and natural resources) and public input, the Tuolumne River planning team developed four action alternatives for managing the river corridor. In building the alternatives, the team worked within a planning framework that included eight major steps, which are diagrammed below. Although this framework is shown as a series of sequential activities, planning is fundamentally iterative. At each step, new information is uncovered and new insight is gained that can trigger changes to prior decisions. Although time-consuming, this process of review and revision ultimately lead to a stronger end product, both in form and content.

Creating Alternatives for the Tuolumne River Plan

A Generalized Planning Process

Step 1: Define River Values to be Protected and Enhanced

Step 2: Assess Baseline Condition of River Values

Step 3: Define Desired Condition, Adverse Impact, and Degradation for River Values

Step 4: Identify Management Concerns and Potential Corrective Actions

Step 5: Determine Location and Size of Necessary Facilities

Step 6: Solicit Public Input on Organizing Themes for Alternatives

Step 7: Evaluate Operation and Implementation Feasibility of Draft Alternatives

Step 8: Establish User Capacities Consistent with Protection of River Values

No-Action Alternative

Alternative 1

Alternative 2

Alternative 3

Alternative 4 (Preferred)
The Tuolumne River Plan focuses on protecting and enhancing river values. Many of the actions that would be taken to address management concerns about those values are common to all the action alternatives. For example, a comprehensive ecological restoration program for the subalpine meadow and riparian complex is a central component of the Draft Tuolumne River Plan. The alternatives vary primarily in how they balance the protection of river values with different kinds of visitor use and associated user capacities in the Tuolumne Meadows scenic segment and at the Glen Aulin potential wilderness addition within the Grand Canyon of the Tuolumne wild segment.

**FREE-FLOWING CONDITIONS**
- Continue to work cooperatively with the San Francisco Public Utilities Commission and others to inform releases from O’Shaughnessy Dam intended to more closely mimic natural flows downstream
- Continue to improve water conservation and sustainability practices, including installation of water meters, and low-flow fixtures
- Improve the Tioga Road bridge at Tuolumne Meadows and the footbridge at Parsons Memorial Lodge to mitigate impacts on river hydrology during periods of high flows, while maintaining the historical character of both bridges

**WATER QUALITY**
- Replace the composting toilet at the Glen Aulin backpacker campground
- Upgrade utility systems to conserve water and protect water quality
- Stabilize the road cut east of Tuolumne Meadows along Tioga Road
- Continue best management practices regarding administrative and private stock use

**BIOLOGICAL VALUES**
Alternatives 1–4 would protect subalpine meadow and riparian areas from visitor-related impacts by removing informal trails, mitigating the hydrologic impacts caused by historic trail segments, and eliminating some facilities from meadow and riparian areas. Actions common to alternatives 1–4 include:

- Eliminate roadside parking and associated informal trails
- Restore riverbank and riparian vegetation
- Remove facilities inappropriately sited near the riverbank or in wet areas
- Mitigate effects of Tioga Road culverts
- Mitigate effects of the Great Sierra Wagon Road
- Restore localized areas previously disturbed by human and packstock use in Lyell Canyon
- Continue research to identify the conditions necessary for ecological recovery and long-term integrity of river-related habitats suspected of disruption by historic and contemporary human use, climate change, and other disturbances.

**SCENIC VALUES**
Through Dana and Tuolumne Meadows, mitigate human intrusions into views by eliminating roadside parking, removing informal trails, and restoring more natural conditions to many currently disturbed sites.
CULTURAL VALUES
• Protect prehistoric archeological sites by diverting use away from sensitive areas
• Mitigate ecological restoration practices by using noninvasive techniques wherever possible, and undertake data recovery where necessary to avoid resource loss through park actions or natural forces
• Preserve Parsons Memorial Lodge

RECREATION VALUES
• Continue to manage overnight use in wilderness through an overnight trailhead quota system to protect opportunities for solitude
• Retain seasonal recreational access to the river through Tuolumne and Dana Meadows by way of Tioga Road.
• Retain Tioga Road on its current alignment

VISITOR USE AND USER CAPACITY
Under all the action alternatives, maximum day use levels would be managed through the capacity of day parking facilities and the service levels of public transportation that delivers day visitors to the corridor. Day parking would either be on a first-come/first-served basis or managed through a reservation system, as described under each alternative.

Overnight use levels in the Tuolumne Meadows area would be managed by controlling the number of campsites/people per site in the campground, and the number of lodge units at Tuolumne Meadows Lodge.

LAND USE, FACILITIES, AND SERVICES
Under all alternatives, all facilities except roads and trails would be removed from meadow and riparian areas and the sites would be restored to natural conditions. Specific sites that would be restored under all the action alternatives include:

• Sites disturbed by roadside parking and informal trails
• The site of the concessioner employee housing behind the store and the side of the concessioner employee housing near the river at Tuolumne Meadows Lodge
• The sites of three visitor tent cabins closest to the river at the Tuolumne Meadows Lodge

Domestic water and wastewater treatment systems are necessary to support visitor use at Tuolumne Meadows. Future facility design and capacity would adhere to the land use assignments and capacity decisions outlined in the Tuolumne River Plan. The following actions would be common to alternatives 1–4.

• Upgrade the wastewater treatment plant to modern treatment codes in the existing location.
• Upgrade water distribution system to eliminate leaks and conserve water
NO-ACTION ALTERNATIVE

Yosemite National Park is required under the National Environmental Policy Act to include a no-action alternative during the formation of the Tuolumne Wild and Scenic River Comprehensive Management Plan. The no-action alternative is best used to compare present conditions to the four action alternatives.

OVERVIEW
In the Tuolumne Meadows area, opportunities for day and overnight use would continue to include a range of recreational activities supported by modest commercial services and overnight camping and lodging. The existing management would perpetuate the current resource conditions and landscape character at Tuolumne Meadows and Glen Aulin.

WILD SEGMENTS
Overnight use in wilderness would continue to be managed under an overnight trailhead quota system that currently accommodates 350 backpackers per night above Hetch Hetchy Reservoir and 50 backpackers per night below O’Shaughnessy Dam. The Glen Aulin High Sierra Camp would be retained at the current capacity of 32 guests. Day use in wilderness would remain unrestricted and would be expected to continue to increase. Concessioner stock day rides would continue to serve a maximum of 62 people per day. Commercial use in wilderness would continue under current management; current levels of use have been estimated for guided stock trips at 240 person-nights per season and for guided hiking trips at 235 person-nights per season. Commercial users and the general public currently have equal access to backcountry overnight permits.

SCENIC SEGMENTS
The campground and Tuolumne Meadows Lodge would be retained at current capacities.

A full range of orientation, interpretation, and education programs would continue to be conducted at the existing visitor center, wilderness center, and Parsons Memorial Lodge, and in the field. Current commercial services (store/grill, public fuel station, mountaineering shop and school, concessioner stock day rides) would be retained at Tuolumne Meadows.

Current maximum day use in the Tuolumne Meadows area and adjacent wilderness is estimated at 1,774 people at one time. Day use would be expected to continue to increase. The overnight capacity at Tuolumne Meadows is 2,310 people per night: 2034 people are accommodated in the 304 campsites in the campground and group sites, and 276 people are accommodated in the 69 guest cabins at Tuolumne Meadows Lodge.
1. Pothole Dome pullout: day parking, trailhead, and scenic roadside pullout
2. Tioga Road through the Tuolumne Meadows area
3. Existing Cathedral Lakes trailhead with roadside parking
4. Existing wastewater ponds and sprayfield
5. Undeveloped natural area
6. Existing visitor center, day parking, NPS housing, and maintenance yard
7. Wastewater treatment plant
8. Parsons Memorial Lodge
9. Natural area
10. Tuolumne Meadows campground

11. Store, grill, post office, mountaineering shop/school, public fuel station, day parking, concessioner housing
12. Existing concessioner stable, day parking, and concessioner housing
13. Lembert Dome day parking and picnic area
14. Historic Great Sierra Wagon Road
15. Existing wilderness center and NPS stable
16. Existing ranger station, day parking, administrative fuel pumps, and NPS housing
17. NPS employee housing, day and overnight parking
18. Tuolumne Meadows Lodge, roadside parking, and concessioner housing
19. Water treatment facility
20. Gaylor pit helipad and informal day parking.
ALTERNATIVE 1

OVERVIEW
Alternative 1 would restore conditions for primitive, unconfined recreation in an undeveloped natural area to much of Tuolumne Meadows and Glen Aulin.

RESOURCE PROTECTION AND ENHANCEMENT
River values would be protected and enhanced by reducing the development footprint, restoring ecological conditions in subalpine meadow and riparian areas, reducing water demands and risks to water quality, improving the free-flowing condition of the Tuolumne River, and protecting archeological sites and resources important to American Indians. Overall, Alternative 1 would result in the restoration of 208 acres of meadow and riparian habitat and 25 acres of upland habitat with 38 acres of disturbance for new construction.

SITE DEVELOPMENT
Under this alternative, the Tuolumne Meadows lodge, campground loop A, and most commercial facilities would be removed. Undesignated parking spaces would be removed or formalized, and water treatment facilities would be upgraded. Administrative use would be reduced by decreasing NPS and concessionaire housing. The functions of the visitor and wilderness centers would be combined. The NPS and concessioner stables would also be combined.

MANAGEMENT OF VISITOR USE AND CAPACITY
Under this alternative, all current recreation opportunities except commercial use and concessioner day rides would be retained. Tuolumne Meadows Lodge and the Glen Aulin High Sierra Camp would be removed and the Tuolumne Meadows campground would be reduced in capacity. Overnight visitor use would be reduced from 2,742 to 2,032. Day visitor use would be reduced from 1,774 to 1,033 by eliminating non-designated parking and reducing the number of designated parking spaces. Estimated water demand for Alternative 1 would be reduced from 64,141 presently to 39,867 gallons per day.
1. Pothole Dome pullout: day parking, trailhead, and scenic roadside pullout
2. Tioga Road: naturalistic barriers to eliminate roadside parking with four new viewing turnouts dispersed along the road
3. Restore existing Cathedral Lakes trailhead to natural conditions
4. Wastewater ponds and sprayfield restored to natural conditions, replaced with facilities at location #7 or #9
5. New Cathedral Lakes trail connection
6. Repurpose visitor center to NPS operations, new Cathedral Lakes trailhead, day and overnight parking, maintenance yard, and NPS housing
7. Upgraded wastewater treatment plant, RV dump station
8. Parsons Memorial Lodge, footbridge upgraded to improve hydrology
9. Undeveloped natural area or possible use for wastewater treatment facilities, if needed
10. Smaller campground in redesigned loop configuration, loop A removed, new campground office/camper store and day parking
11. Day use parking, grill, mountaineering shop/school, and public fuel station eliminated
12. Co-locate NPS and concessioner stable and retain one hard-sided cabin
13. Lembert Dome: Day parking, picnic area, and shuttle stop
14. Great Sierra Wagon Road preserved for trail use with management to mitigate impacts on meadow hydrology
15. Visitor contact station and wilderness center with day and overnight parking
16. Ranger station, day parking, administrative fuel pumps, NPS housing
17. Day and overnight parking. Remove NPS housing
18. Tuolumne Meadows Lodge restored to natural conditions
19. Upgraded water treatment facility
20. Helipad
OVERVIEW
Alternative 2 would respond to those members of the public who expressed a desire for more recreational opportunities. It would facilitate resource enjoyment and stewardship by a broad spectrum of visitors and help visitors forge a connection with the Tuolumne by getting out of their cars and taking walks or short hikes to sites of natural, cultural or recreational interest.

RESOURCE PROTECTION AND ENHANCEMENT
River values would be protected and enhanced by restoring ecological conditions to meadow and riparian areas, by directing use in scenic segments to resilient areas, and by restricting access to meadows and the river in the Tuolumne Meadows area to formally maintained trails. Also, protection of archeological sites and resources important to American Indians would be increased. Overall, Alternative 2 would result in the restoration of 170 acres of meadow and riparian habitat and 5 acres of upland habitat, with 40 acres of disturbance for new construction.

SITE DEVELOPMENT
At Tuolumne Meadows, the majority of existing commercial and visitor use facilities would remain in place. The existing visitor center would be relocated to a new location within the existing commercial area. Undesignated parking spaces would be removed or formalized with new parking lots added, and water treatment facilities would be upgraded. Administrative use would be more efficient by consolidating NPS and concessionaire housing and combining the ranger station with the wilderness center. The NPS and concessioner stables would also be combined. New Park employee housing would be added to accommodate about 60 additional NPS employees. The Glen Aulin High Sierra Camp would be converted to a seasonal outfitter camp with no permanent facilities and no change in capacity (see figure 7-6). Most of the river corridor would continue to be managed as wilderness.

MANAGEMENT OF VISITOR USE AND USER CAPACITY
Under Alternative 2, opportunities for camping would be increased in Tuolumne Meadows, some restrictions would be placed on commercial stock use, and whitewater kayaking would be allowed on limited portions of the river. Overnight visitor use would increase from 2,742 to 2,988 with the addition of campsites. Day visitor use, maintained by managing parking and levels of public transportation, would be increased from 1,774 to 1,913 by increasing the number of designated parking spaces within formal parking areas. Estimated water demand would increase from 64,141 to 70,081 gallons per day.
1. Pothole Dome pullout: day parking, trailhead, and scenic roadside pullout
2. Tioga Road: naturalistic barriers to eliminate roadside parking with four new viewing turnouts dispersed along the road; hiking trail paralleling the road
3. Restore existing Cathedral Lakes trailhead to natural conditions
4. Ponds, sprayfield, and service road retained, upgraded (or relocated if feasible)
5. NPS and concessioner stables and day parking, hard-sided cabin for two stable employees, and new Cathedral Lakes trail connection
6. New Cathedral Lakes trailhead with day and overnight parking. Repurpose visitor center to NPS operations, maintenance yard, NPS housing
7. Upgraded wastewater treatment plant, RV dump station
8. Parsons Memorial Lodge, footbridge upgraded to improve hydrology
9. Day parking and picnic area, trailhead for Parsons Memorial Lodge
10. Expanded campground in current loop configuration, campground office, day parking, and Elizabeth Lakes trailhead

11. Visitor contact station, store, grill, picnic area, post office, public fuel station, new public shower/restroom facility, and day parking (mountaineering shop/school eliminated; concessioner housing moved to location #20)
12. Meadow-overlook picnic area, day and overnight parking
13. Lembert Dome: Day parking and picnic area
14. Great Sierra Wagon Road preserved for trail use with management to mitigate impacts on meadow hydrology
15. Consolidated wilderness center and ranger station with day and overnight parking
16. Upgrade NPS employee housing, administrative fuel pumps
17. Day and overnight parking
18. Tuolumne Meadows Lodge retained at current capacity
19. Upgraded water treatment facility
20. NPS and concessioner housing, helipad
OVERVIEW
Alternative 3 responds to those members of the public who have strong traditional ties to the Tuolumne River Corridor and who expressed a desire to see the area remain unchanged. It would preserve many aspects of Tuolumne Meadows’ historic setting.

RESOURCE PROTECTION AND ENHANCEMENT
River values would be protected and enhanced by restoring ecological conditions to meadow and riparian areas, directing use in scenic segments to resilient areas, reducing water demands and risks to water quality, improving the free-flowing condition of the Tuolumne River, and protecting archeological sites and resources important to American Indians. Overall, Alternative 3 would result in the restoration of 171 acres of meadow and riparian habitat and 5 acres of upland habitat with 11 acres of disturbance for new construction.

SITE DEVELOPMENT
At Tuolumne Meadows, the majority of existing commercial and visitor use facilities would remain in place in their current locations except for the mountaineering shop and fuel station, both of which would be removed. Undesignated parking spaces would be removed or formalized with new parking lots added, and water treatment facilities would be upgraded. Capacity at the Tuolumne Lodge would be reduced, with a number of cabins converted to employee housing.

MANAGEMENT OF VISITOR USE AND USER CAPACITY
Current recreation opportunities would be retained. Overnight visitor use – lodging at Glen Aulin and Tuolumne Meadows Lodge - would be reduced from 2,742 to 2,598. Day visitor use would be reduced from 1,774 to 1,568. Estimated water demand would decrease from 64,141 to 59,739 gallons per day.
1. Pothole Dome pullout: day parking, trailhead, picnic area, and scenic roadside pullout
2. Tioga Road: naturalistic barriers to eliminate roadside parking with four new viewing turnouts dispersed along the road
3. Restore existing Cathedral Lakes trailhead to natural conditions
4. Ponds, sprayfield, and service road retained, upgraded (or relocated if feasible)
5. New Cathedral Lakes trail connection
6. Visitor center, Cathedral Lakes trailhead, picnic area, day and overnight parking, NPS housing
7. Upgraded wastewater treatment plant, RV dump station, modest operational facilities related to roads trails, buildings, and grounds, new maintenance yard and office
8. Parsons Memorial Lodge, footbridge upgraded to improve hydrology
9. Natural area
10. Campground in current loop configuration, campground office, Elizabeth Lakes trailhead and day parking
11. Store, grill, and day parking (Mountaineering shop/school and fuel station eliminated)
12. Concessioner stable, day and overnight parking, and one hard-sided cabin
13. Lembert Dome: Day parking and picnic area
14. Great Sierra Wagon Road preserved for trail use with management to mitigate impacts on meadow hydrology
15. Wilderness center, overnight parking, NPS stable
16. Ranger station, day parking, administrative fuel pumps, NPS housing
17. NPS housing, day and overnight parking
18. Tuolumne Meadows Lodge: 34 visitor cabins (35 visitor cabins reallocated to concessioner housing)
19. Upgraded water treatment facility
20. Helipad, day parking
OVERVIEW
Alternative 4 responds to a range of public concerns by balancing desires to retain a traditional Tuolumne experience with desires to reduce development and make visitor use more sustainable. It also addresses the need to provide a meaningful introduction to the Tuolumne River for the growing number of short-term visitors.

RESOURCE PROTECTION AND ENHANCEMENT
River values would be protected and enhanced by restoring ecological conditions to meadow and riparian areas, by directing use in scenic segments to resilient areas, by restricting access to meadows and the river in the Tuolumne Meadows area to formally maintained trails, and by eliminating most risks to water quality. The free-flowing condition of the Tuolumne River would be improved and archeological sites and resources important to American Indians would be protected. Overall, Alternative 4 would result in the restoration of 171 acres of meadow and riparian habitat and 2 acres of upland habitat with 27 acres of disturbance for new construction.

SITE DEVELOPMENT
At Tuolumne Meadows, the majority of existing commercial and visitor use facilities would remain in place except for the removal of the mountaineering shop/school and fuel station. The existing visitor center would be converted to office space with a small visitor contact station constructed nearby. Undesignated parking spaces would be removed or formalized with new parking lots added, and water treatment facilities would be upgraded. The NPS and concessioner stables would be combined and a slightly higher number of NPS employee housing units would be added to accommodate the proposed use level. Concessioner stock day rides into wilderness would be discontinued. The Glen Aulin High Sierra Camp would be reduced by 12 beds to 20 total.

MANAGEMENT OF VISITOR USE AND USER CAPACITY
Overnight visitor use would decrease slightly from 2,742 to 2,730. Day visitor use would increase from 1,774 to 1,839, which reflects a higher number of designated parking spaces within formal parking areas. Day use on trails near Tioga Road would be managed to preserve opportunities for solitude. Estimated water demand would increase from 64,141 to 66,778 gallons per day.
1. Pothole Dome pullout: day parking, trailhead, picnic area, and scenic roadside pullout
2. Tioga Road: naturalistic barriers to eliminate roadside parking with four new viewing turnouts dispersed along the road. Hiking trail paralleling the road.
3. Restore existing Cathedral Lakes trailhead to natural conditions
4. Ponds, sprayfield, and service road retained, upgraded (or relocated if feasible)
5. New Cathedral Lakes trail connection
6. Repurpose visitor center to NPS operations, new Cathedral Lakes trailhead and picnic area, day and overnight parking, NPS housing
7. Upgraded wastewater treatment plant, RV dump station, modest operational facilities related to roads trails, buildings, and grounds, new maintenance yard and office
8. Parsons Memorial Lodge, footbridge upgraded to improve hydrology
9. New visitor contact station and Parsons Lodge trailhead and day-use parking
10. Campground in current loop configuration, campground office, Elizabeth Lakes trailhead and day parking
11. Store, grill, and day parking (Mountaineering shop/school and fuel station eliminated)
12. Co-locate NPS and concessioner stables, retain day and overnight parking and one hard-sided cabin
13. Lembert Dome: Day parking, picnic area, and new shuttle stop
14. Great Sierra Wagon Road preserved for trail use with management to mitigate impacts on meadow hydrology
15. Wilderness center, overnight parking
16. Repurpose ranger station and upgrade NPS housing
17. NPS housing, day and overnight parking
19. Upgraded water treatment facility
20. Helipad, day parking