

7.8 Recreation Resources

7.8.1 Overview

This section provides information regarding recreation related to Yuba County Water Agency's (YCWA or Licensee) Yuba River Development Project (Project). Sections 7.8.2, 7.8.3 and 7.8.4 provide information regarding recreation opportunities at Project reservoirs and in river reaches potentially affected by the Project. Section 7.8.5 provides information about current recreation use levels and occupancy rates at existing recreation facilities in the Project Area.¹ Section 7.8.6 describes recreation needs identified in pertinent resource management plans. Section 7.8.7 lists other regionally or nationally significant recreation areas in the Project Vicinity.²

Wild and Scenic Rivers, Wilderness Areas and National Scenic Trails are discussed in the Land Use section of this Pre-Application Document (PAD) (Section 7.9.2.8). River segments listed by the United States Department of Interior (USDOI), National Park Service's Nationwide Rivers Inventory are also discussed in the Land Use section. Other relevant information discussed in the Land Use section includes: 1) Licensee's shoreline buffer zone policy; and 2) Licensee's permit requirements for piers, boat docks and landings, bulkheads, and other shoreline facilities on Project reservoirs and land (Section 7.9.3).

7.8.2 Recreation Facilities and Opportunities in and around the Project Reservoirs

As a condition of its Federal Energy Regulatory Commission (FERC) license, Licensee provides recreational opportunities and facilities within the FERC Project Boundary.³ Recreation opportunities associated with the impoundments are described below (Section 7.8.2.1), followed by a description of the developed facilities (Section 7.8.2.2). Facilities are also shown on the 1:24,000 series maps included in Appendix D of this PAD.

7.8.2.1 Recreation Opportunities

The Project provides developed and undeveloped recreation opportunities at New Bullards Bar Reservoir and the Our House and Log Cabin diversion dam impoundments.

¹ For the purposes of this document, the Project Area is defined as the area within the Federal Energy Regulatory Commission (FERC) Project Boundary and the land immediately surrounding the FERC Project Boundary (i.e., within about 0.25 mile of the FERC Project Boundary) and includes Project-affected reaches between facilities and downstream to the next major water controlling feature or structure.

² For the purposes of this document, Project Vicinity is defined as the area surrounding the Project on the order of a United States Geological Survey (USGS) 1:24,000 topographic quadrangle.

³ The existing FERC Project Boundary is the area that Licensee uses for normal Project operations and maintenance, and is shown in Exhibits G, J and K of the current license.

7.8.2.1.1 New Bullards Bar Reservoir

Located approximately 21 miles (mi) north of Nevada City, New Bullards Bar Reservoir has a maximum surface area of 4,760 acres (ac), a capacity of 966,103 acre-feet (ac-ft) of water, a length of over 16 mi, and a shoreline of more than 60 mi.

New Bullards Bar Reservoir provides a variety of water-related recreational opportunities including water skiing, wakeboarding, houseboating, power boating, jet skiing, wildlife viewing, non-motorized boating, warm and cold water fishing, hiking, and lake side camping (accessed by boat only). Some boat use and launching occurs year round; however, the typical boating season extends from about early May through mid-October.

Because ninety-percent (90%) of the New Bullards Bar shoreline is publicly owned, most of the shoreline is theoretically accessible for recreation. However, the sides of the reservoir are generally steep and public access for boating and recreation is limited to 2 developed and 1 undeveloped boat launches: the Cottage Creek Boat Launch ramp at Emerald Cove Marina, the Dark Day Boat Launch ramp, and the undeveloped site at the end of Moran Road.

The developed boat ramps—Cottage Creek and Dark Day boat launch ramps—are described below in Section 7.8.2.2. Boats can also access New Bullards Bar Reservoir via 1 undeveloped site at the end of Moran Road that accesses the west edge of the reservoir at Moran Cove. The Moran Road/Cove area consists of a gravel parking area for 6 to 8 vehicles, a bulletin board, and a road blockade approximately 300 feet (ft) from the maximum water surface elevation. The public may access the reservoir via a short hike, and may launch small watercraft that can be carried on foot.

New Bullards Bar Reservoir contains populations of rainbow trout, kokanee salmon, brown trout, spotted bass, smallmouth bass, largemouth bass, crappie, bluegill, and channel catfish for anglers (CDFG 2002a). California Department of Fish and Game (CDFG) stocks catchable-size rainbow trout in the reservoir (CDFG 2009c). The reservoir also offers anglers shoreline and boat-based fishing opportunities with varied settings from the deeper, larger pools near the dam to the sinuous arms at the upstream ends of the reservoir.

Land-based recreation opportunities provided in the vicinity of New Bullards Bar Reservoir include wildlife viewing, hiking, mountain biking, horseback riding, and camping.

Facilities developed to support camping and other land-based recreation activities are described in Section 7.8.2.2. Due to the fire hazard at New Bullards Bar Reservoir, YCWA allows shoreline (undeveloped) camping at undesignated locations by permit only when the water elevation is 15 ft below the tree line. Licensee's concessionaire (Emerald Cove Marina) issues the permits and only 44 permits are available at a time. Private portable chemical toilets are required as part of the permit and can be rented from Emerald Cove Marina.

7.8.2.1.2 Our House Diversion Dam and Log Cabin Diversion Dam impoundments

The Our House and Log Cabin diversion dam impoundments provide day use recreation opportunities for visitors. Our House Diversion Dam is a small dam located on the Middle Yuba River and Log Cabin Diversion Dam is located on Oregon Creek. Each impoundment provides minimal storage.

Boating does not occur on either impoundment due to their small size. However, people are known to swim at both impoundments (YCWA 1995).

In general, fishing is the primary recreational use at these two Project impoundments (YCWA 1995).

The Our House Diversion Dam and Log Cabin Diversion Dam impoundments provide day use recreation opportunities for visitors.

7.8.2.1.3 Local Ordinances, Law Enforcement

Law enforcement and public safety at the New Bullards Bar Reservoir and recreation facilities is shared by Tahoe National Forest (TNF) and the Yuba County Sheriff's Department. Campground regulations, occupancy limits, vehicle limits, and noise ordinances are strictly enforced and campgrounds are patrolled by the United States Department of Agriculture Forest Service (Forest Service). The Yuba County Sheriff has the responsibility to enforce state and county laws, whereas the Forest Service has the responsibility to enforce federal laws, within the operating area (USFS-TNF 2009a).

The Yuba County Sheriff boat patrol maintains safety and enforces the State and County regulations at Cottage Creek Boat Launch facility and within the New Bullards Bar Reservoir recreation area. Yuba County ordinances contain provisions specific to New Bullards Bar Reservoir (Title VIII, Public Peace and Safety, Chapter 8.50 – Bullards Bar Recreation Area). These ordinances detail the rules and regulations for all types of use on public land including vehicle traffic, boating, shoreline use, swimming, house boating, and fire prevention. Attachment 7.8A contains the full Yuba County ordinance for New Bullards Bar Reservoir and surrounding lands. In addition, Yuba County Ordinance § 8.50.040 provides that YCWA regulate the uses and rules at New Bullards Bar Reservoir as follows (Yuba County 2008c):

- 1) YCWA is authorized to adopt ordinances, special rules, and regulations with reference to the public use of the New Bullards Bar Recreation Area, including New Bullards Bar Reservoir (such as the ordinances in Table 7.8.2-1 and 7.8.2-2).
- 2) It shall be unlawful to violate any rule, regulation, or ordinance adopted by YCWA regulating the public use of the New Bullards Bar Recreation Area, including the New Bullards Bar Reservoir.
- 3) It shall be unlawful to operate or use any boat or watercraft upon any portion of the waters of the New Bullards Bar Reservoir for which the fees and charges established by YCWA have not been paid.

- 4) Any person who violates any of the provisions of this § 8.50.040 or any of the ordinances, rules, or regulations adopted by YCWA regulating the public use of the New Bullards Bar Recreation Area, including New Bullards Bar Reservoir, shall be guilty of a misdemeanor and punishable by a fine not exceeding \$500 or by imprisonment not exceeding 6 months, or by both such fine and imprisonment.

A summary of the county boating ordinance for New Bullards Bar Reservoir is provided in Table 7.8.2-1 (Yuba County 2008c).

Table 7.8.2-1. Summary of Yuba County boating ordinance at New Bullards Bar Reservoir.

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| 1. No owner, operator, or person in command of any vessel propelled by machinery shall use it or permit it to be used at a speed in excess of 5 miles per hour (mph) or at a speed which creates a noticeable wake in any portion of the area from the New Bullards Bar Dam to 100 feet: (a) Beyond the designated houseboat mooring area of the Bullards Bar Marina. (b) In any area which 5 mph and/or "Flat Wake" signs have been posted. (c) The 5 mph/flat wake areas shall be marked by signs indicating five miles per hour and/or flat wake displayed in a manner approved by YCWA. (d) The maximum speed limit beyond the 5 mph/flat wake designated areas shall be 20 mph between sunset and sunrise. This maximum speed limit does not supersede or alter in any way the State Mandated "safe speed" requirement if such safe speed is less than 20 mph given then existing conditions at the Lake. (#1315) |
| 2. No person shall operate any motor-propelled boat upon the waters of New Bullards Bar Reservoir in excess of any posted speed limit, or at a speed in excess of 5 mph within 200 feet of any boat landing area or landing wharf to which boats are made fast and which is used for the embarkation or discharge of passengers, or within 200 feet from the shoreline of the New Bullards Bar Reservoir. |
| 3. No person shall place in use or operate any boat on New Bullards Bar Reservoir unless such boat is in a sanitary and seaworthy condition. |
| 4. No person shall maintain or operate in or upon the waters of New Bullards Bar Reservoir any boat which is equipped with a toilet, sink drain, or other equipment constituting a pollution hazard unless such toilet, sink drain, or other equipment constituting a pollution hazard is sealed or otherwise rendered inoperable or designed so that no human excreta or other polluting substance can be discharged in the waters of said reservoir. |
| 5. No person shall operate any boat, sailboat, rubber raft, or canoe within 30 feet of New Bullards Bar Dam or in any area closed to boating. |
| 6. No person shall launch any boat except at approved launching areas designated by YCWA. |
| 7. No person shall keep any boat on shore overnight except in areas designated for such purpose. From June 1 to September 30 of each year the water level of New Bullards Bar Reservoir may fluctuate to a maximum of 1 ½ feet per 24 hours. Between October 1 of each year and May 31 of the succeeding year extreme fluctuations can be expected. Persons desiring to leave their boats overnight shall do so at their own risk and neither YCWA nor the County assumes any liability or bailment obligations pertaining to the care of such boats, damage, loss, or theft thereof. |
| 8. No person shall carry passengers for hire or lease or rent any boat without prior authorization in writing issued by YCWA. |
| 9. No person shall operate a boat, water skis, or aqua-plane except in compliance with the symbols on all regulatory markers placed on the lake by YCWA. |
| 10. No person shall operate a bilge pump in any boat in the waters of New Bullards Bar Reservoir, except at such locations as are designated by YCWA for the operation of bilge pumps and where facilities are available for the disposal of bilge waters without contaminating or polluting the waters of New Bullards Bar Reservoir; provided, however, that the provisions of this subsection shall be inapplicable in the event the operator of a boat is faced with an emergency where life or property would be imperiled by failure to operate such bilge pumps. It shall be the duty of any person operating a bilge pump at other than an authorized location to report the facts necessitating such use to YCWA. |
| 11. No person shall pass through, mutilate, damage, or move from position any buoy or log boom placed or installed on New Bullards Bar Reservoir designating closed areas, speed zones, dangerous projections and submerged rocks and reefs. |

Table 7.8.2-1. (continued)

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| 12. No person shall use any motor or container for oil, gas or other contaminating substance, which leaks such substance into the waters of New Bullards Bar Reservoir. |
| 13. No person shall engage in, carry on, conduct or cause to be engaged, carried on or conducted any boat racing or water skiing event on established courses in New Bullards Bar Reservoir without having obtained a written permit from the Yuba County Water Agency, or to do so after such permit has expired or has been suspended, canceled, or revoked. Any person, corporation, or organization desiring to engage in, carry on, or conduct such an event in New Bullards Bar Reservoir shall first procure from YCWA a permit to do so, and for the purpose of procuring such permit shall file an application in writing therefore with YCWA not less than 30 days in advance of the date on which such event is to be conducted, which application shall contain the following information: (a) Name and place of resident of the applicant, if a natural person, and, if an organization or corporation, the name and address of the principal office and the name and address of its duly authorized representative. (b) The date or dates for which the permit is desired. (c) A statement as to whether any permit previously issued to such applicant or any agent thereof or to any person interested, whether as principal, agent, or employee, has ever been canceled or revoked. All permits issued pursuant to this subsection shall designate the course and areas over which such event shall be conducted, the conditions under which such event shall be conducted for the protection and preservation of the public health, safety, and general welfare, and shall require the permittee to indemnify and save harmless the Yuba County Water Agency, the County of Yuba, and their respective officers, agents, and employees from any and all claims, causes of action, or suits accruing or resulting from any damage, injury or loss to any person or persons, including all persons to whom the applicant may be liable under any Workers' Compensation Law, or for any loss, damage, cause of action, claims or suits for damages, including but not limited to loss of property, caused by, arising out of or in any way connected with the conduct, operation, or management of such an event, or the exercise of any privilege granted in said permit, and shall require the applicant, at its own expense, to procure and maintain Worker's Compensation Insurance and Public Liability Insurance and Property Damage Insurance with insurers approved by YCWA in such amounts as YCWA deems reasonable and necessary to make effective the indemnity hereinabove set forth and to provide YCWA and the County of Yuba with certificates evidencing the insurance coverage. |
| 14. Notwithstanding any other penalty provision in this Chapter, violation of any subsection of 8.50.060 shall be an infraction punishable by a fine of \$150.00. (#1315) (#435 as amended by #541, #534, #1082, and #1315) |

Source: Yuba County, Ordinance § 8.50.060 in Title VIII, Chapter 8.50 of Public Peace and Safety.

A summary of the Yuba County Ordinance § 8.50.070 regarding house boating on New Bullards Bar Reservoir is provided in Table 7.8.2-2 (Yuba County 2008c).

Table 7.8.2-2. Summary of Yuba County house boating ordinance at New Bullards Bar Reservoir.

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| 1. No person shall place in use, or operate, on the waters of New Bullards Bar Reservoir any houseboat over 60 feet in length or 15 feet in width. |
| 2. No person shall place in use, or operate, a houseboat for other than recreational purposes. |
| 3. No person shall place in use, or operate, a houseboat that is not self-propelled. |
| 4. No person shall place in use, or operate, a houseboat which is not equipped with a flotation device consisting of either steel or aluminum pontoons constructed with internal water tight bulkheads or filled with foam plastic flotation materials or fiberglass (or similar material) pontoons filled with foam plastic or flotation material. |
| 5. No person shall place in use, or operate, a houseboat without a valid, annual houseboat permit from the Engineer-Administrator (i.e., Marina). (a) Every houseboat shall be subject to an annual inspection for safety, cleanliness, seaworthiness, and correct wastewater and sewage system. (b) Every houseboat shall be subject to intermittent inspection of wastewater and sewage hook-up by the U.S. Forest Service or the Engineer—Administrator (i.e., Marina), for due cause and with prior notice of inspection. (c) Upon the permit of every houseboat shall be a record of wastewater and sewage pumpouts. (d) Pumpouts will be performed by the Marina operator for a fee, at least every 6 months. (e) Every houseboat shall have a waste water/sewage holding tank, hard plumbed to and from holding tank of rigid pipe with all fittings and connections glued, brazed, or welded. No threaded drains or cleanouts are permitted. (f) Any houseboat which has had its waste hook-up willfully removed, tampered with, or altered in any way, so as to discharge into the reservoir shall have its permit revoked and shall be permanently barred from the reservoir. (g) The fee for annual inspection shall be set by Resolution of YCWA. (h) Any houseboat which fails the annual inspection will again be charged the annual fee prior to re-inspection. |

Source: Yuba County, Ordinance § 8.50.070 in Title VIII, Chapter 8.50 of Public Peace and Safety.

In addition, speed limit restrictions are posted on the reservoir for public safety near the boat launching facilities, mooring areas, the swimming area (Moran Cove), the narrow canyons (Upper North Yuba channel), and for fisheries protection in certain coves.

7.8.2.2 Recreation Facilities

A list of developed facilities and their associated amenities is provided in Table 7.8.2-3 and a description of each facility follows. In all, the Project recreation facilities within the FERC Project Boundary include 5 campgrounds (132 total sites), 2 picnic areas, 2 boat launch ramps, 1 marina (i.e., Emerald Cove Marina at Cottage Creek), 1 overlook, 1 day use area and several developed hiking trails. In addition, 2 facilities have been decommissioned. Each of these major recreation facilities is located on or near New Bullards Bar Reservoir.

Table 7.8.2-3. Summary of Project recreation facilities and other on-site amenities at New Bullards Bar Reservoir.

| Amenities | Hornswoggle Campground | Schoolhouse Campground | Dark Day Campground | Garden Point Boat-In Campground | Madrone Cove Boat-In Campground | Cottage Creek Overflow Campground | Emerald Cove Marina | Sunset Vista Overlook | Moran Road Day Use | Total |
|--------------------------|------------------------|------------------------|---------------------|---------------------------------|---------------------------------|-----------------------------------|---------------------|-----------------------|---------------------------------|----------------|
| CAMPsites | | | | | | | | | | |
| With RV hookups | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Single sites | 0 | 44 | 6 | 20 | 10 | 30 | 0 | 0 | 0 | 102 |
| Double sites | 0 | 12 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 15 |
| Triple sites | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| Group sites | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 6 |
| Total | 6 | 56 | 10 | 20 | 10 | 30 | 0 | 0 | 0 | 132 |
| PICNIC UNITS | | | | | | | | | | |
| Number of Units | 0 | 0 | 14 | 0 | 0 | 0 | 0 | 2 | 0 | 16 |
| BOAT RAMPS | | | | | | | | | | |
| Number of boat ramps | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 (car top launch available) | 2 |
| Number of lanes | 0 | 0 | 3 | 0 | 0 | 0 | 2 | 0 | 0 | 5 |
| Parking Spaces-single | 0 | 0 | 57 | 0 | 0 | 8 | 0 | 20 | 8 | 93 |
| Parking Spaces-double | 0 | 0 | 114 | 0 | 0 | 0 | 56 | 0 | 0 | 170 |
| RESTROOMS | | | | | | | | | | |
| Flush | 2 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 6 |
| Vault | 2 | 1 | 2 | 3 | 1 | 0 | 1 | 1 | 0 | 11 |
| Floating Vault | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 6 ¹ |
| Total | 4 | 5 | 2 | 3 | 1 | 0 | 1 | 1 | 0 | 23 |
| ON-SITE AMENITIES | | | | | | | | | | |
| General Store/Groceries | No | No | No | No | No | No | Yes | No | No | No |
| Marina | No | No | No | No | No | No | Yes | No | No | No |
| Boat Slips | No | No | No | No | No | No | Yes | No | No | No |
| Houseboat Mooring | No | No | No | No | No | No | Yes | No | No | No |
| Boat Rentals | No | No | No | No | No | No | Yes | No | No | No |
| Houseboat Rentals | No | No | No | No | No | No | Yes | No | No | No |
| Fuel Station | No | No | No | No | No | No | Yes | No | No | No |
| Sanitary dump station | No | No | No | No | No | No | Yes | No | No | No |

¹ The floating vault toilets are dispersed throughout the reservoir arms and the main body of the reservoir near the dam.

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A 2009 fee schedule for use of recreation facilities and their amenities is in Table 7.8.2-4. All but one of the Project recreation facilities are located on National Forest System (NFS) land within the TNF or the Plumas National Forest (PNF); the Cottage Creek boat launch, ramp, and parking lot are located on land owned by YCWA. Through a 1968 agreement between the Forest Service and Licensee, the Forest Service took ownership of facilities located on its land, as well as the responsibility for operation and maintenance of these facilities (USFS 1968). In accordance with agreements made in 1991 and 2009, user fees for all NFS-owned and YCWA-owned facilities, are collected by YCWA by its concessionaire, Emerald Cove Marina (USFS-TNF 2009a, USFS 1991). Licensee then transfers the user fees associated with the Forest Service facilities to the Forest Service for its operation and maintenance costs.

Table 7.8.2-4. 2009 camping fees at New Bullards Bar Reservoir.

| OVERNIGHT CAMPING | |
|--|--------------------------|
| Campsite – single | \$22 |
| Campsite – double | \$44 |
| Campsite – triple | \$66 |
| Group Campsite – up to 25 people | \$80 |
| Group Campsite – 26 to 50 people | \$140 |
| Undeveloped shoreline camping (permit required includes fire permit) | \$22 |
| RESERVATION AND CANCELLATION FEES | |
| Reservation Fee | \$7.50 |
| Reservation Change Fee (only allowed once) | \$7.50 |
| Cancellation Fee (more than 30 days before check-in date) | Fully Refundable |
| Cancellation Fee (less than 30 days & more than 4 days before check-in date) | One night's campsite fee |
| Cancellation Fee (within 4 days before check-in date) | Non-Refundable |

Source: Emerald Cove Marina 2009

7.8.2.2.1 Hornswoggle Group Campground

Hornswoggle Group Campground is located on Marysville Road 2.5 mi north of the New Bullards Bar Dam, and 3.3 mi south of the Highway 49 junction. The facility is approximately 0.6 mi from the southeast shoreline of the reservoir on NFS land. The facility consists of 6 group camping areas with 5 campsites that accommodate up to 25 people-at-one-time (PAOT) (\$80 per night), and 1 group campsite that accommodates up to 50 PAOT (\$140 per night). The campground has 2 flush restrooms, 2 vault restrooms, 11 water faucets, and 5 parking areas. The group campground has a 2-night minimum on weekends and a 3-night minimum on Memorial Day, Independence Day, and Labor Day holiday weekends. Reservations are available by phone for a \$7.50 reservation fee per site. Figure 7.8.2-1 contains representative photographs of the sites at Hornswoggle Group Campground.



Site No. 1 – Dogwood



Site No. 2 – Sugarpine



Site No. 3 – Manzanita



Site No. 4 – Ponderosa





Site No. 5 – Madrone



Site No. 6 - Douglas Fir

Figure 7.8.2-1. Representative photographs of the 6 group campsites at Hornswoggle Campground.

Source: Emerald Cove Marina (2009)

Site No. 1 Dogwood

Dogwood's main camping area has a capacity of 25 PAOT, or 5 recreational vehicles (RVs) or campers. In all, the site includes 5 picnic tables, 2 cooking grills, 4 bear-proof lockers and shares a flush restroom facility with the Manzanita group site (Site No. 3). The women's restroom has 2 sinks and 2 toilets. The men's restroom has 2 sinks, a toilet, and a urinal.

Site No. 2 Sugarpine

Sugarpine's main camp area has a capacity of 25 PAOT. The site includes 4 picnic tables, 2 preparation tables, a large pedestal cooking grill, 4 grill/fire ring units, and 4 bear-proof lockers. The site also has a vault restroom facility with men's and women's units.

Site No. 3 Manzanita

Manzanita's main camp area is large with ample sites for tents for up to 50 PAOT. The site includes 8 picnic tables, 2 food preparation tables, 8 grill/fire ring units, and 4 bear-proof lockers. The site shares the flush restrooms with the Dogwood group site (Site No. 1), which has a women's side with 2 sinks and 2 toilets and a men's side with 2 sinks, a toilet, and a urinal.

Site No. 4 Ponderosa

Ponderosa's main camp area has a capacity of 25 PAOT. The site can accommodate many tents dispersed throughout the site, but the site is not ideal for RVs, campers, and trailers due to the sloped parking area. In all, the site includes 4 picnic tables, 2 food preparation tables, 4 grill/fire ring units, and 4 bear-proof lockers. This site shares the flush restrooms with the Madrone group site (Site No. 5), which has a women's side with 2 sinks and 2 toilets and a men's side with 2 sinks, a toilet, and a urinal.

Site No. 5 Madrone

The Madrone site has a capacity of 25 PAOT, a large parking area, and is the most secluded of the 6 group sites at Hornswoggle Campground. The site includes 4 picnic tables, 2 food preparation tables, 4 grill/fire ring units and 4 bear-proof lockers. This site shares the flush restrooms with the Ponderosa group site (Site No. 4), which has a women's unit with 2 sinks and 2 toilets and a men's unit with 2 sinks, a toilet, and a urinal.

Site No. 6 Douglas Fir

Douglas Fir's main camp area has a capacity of 25 PAOT in a flat, open and well-shaded/forested area. The site includes 4 picnic tables, 2 food preparation tables, 4 grill/fire ring units and 4 bear-proof lockers. This site has a vault restroom building with a single toilet.

7.8.2.2.2 Schoolhouse Campground

Schoolhouse Campground is located across Marysville Road from the Hornswoggle Group Campground. The campground is approximately 0.5 mi from the reservoir shoreline on NFS land. The facility was originally designed and intended for tent camping. RVs and campers are allowed, but it may be difficult to maneuver larger RVs, campers, and trailers on the campground circulation roads and vehicle spurs. Visitors must make a determination on their own whether their RV, camper, or trailer is capable of fitting in the campground. The campground does not have any RV hookups or a dump station. The campground has 56 campsites, which includes 44 single sites for a maximum of 6 people and 2 vehicles for \$22 per night; and 12 double sites for a maximum of 12 people and 4 vehicles for \$44 per night. Four of the single sites are designed to be accessible to disabled persons. The campground has 4 flush restrooms, 1 vault restroom, 13 water faucets, and an overflow parking area. The Schoolhouse Trail leads 1.0 mi to the 16-mi Bullards Bar Trail. A second trail leads to the Dark Day Campground complex. Schoolhouse Campground has a 2-night minimum on weekends and 3-night minimum on Memorial Day, Independence Day, and Labor Day holiday weekends. Reservations are available by phone for a \$7.50 reservation fee per site. Figure 7.8.2-2 contains representative photographs of the sites at Schoolhouse Campground.



Single Site



Double Site

Figure 7.8.2-2. Representative photographs of Schoolhouse Campground.

Source: Emerald Cove Marina (2009)

7.8.2.2.3 Dark Day Campground, Picnic Area, and Boat Launch

Dark Day Campground, Picnic Area, and Boat Launch facilities are located approximately 4 mi from the New Bullards Bar Dam via Marysville Road and Dark Day Road on the southeast shoreline of the Willow Creek arm of the reservoir. The facility is approximately 0.2 mi from the reservoir shoreline. The campground complex has 10 campsites for tent camping only, with 6 single sites, 3 double sites and 1 triple site. The single sites have a picnic table, cooking grill/fire ring and parking spur with a capacity of 6 people and 2 vehicles for \$22 per night. The double sites have 2 picnic tables, a cooking grill/fire ring and parking spur with a capacity of 12 people and 4 vehicles for \$44 per night. The triple site has 3 picnic tables, a cooking grill/fire ring and parking spur with a capacity of 18 people and 6 vehicles for \$66 per night. None of the sites are designed to be accessible to disabled persons. The campground has 2 vault restrooms, 3 water faucets, and 3 parking areas. A trail from the campground leads to the boat launch facility. Schoolhouse Campground has a 2-night minimum on weekends and 3-night minimum on Memorial Day, Independence Day, and Labor Day holiday weekends. Reservations are available by phone but have a \$7.50 fee per site. This campground formerly was the Dark Day Picnic Area (sites 1 through 16). TNF converted the picnic sites into a walk-in tent campground in 1990 because of the low use the picnic sites received, which probably was because of its distant location from the reservoir shoreline (YCWA 1993).

The Dark Day Picnic Area is located adjacent to the campground. The picnic area consists of 14 picnic sites, each with a picnic table and cooking grill/fire ring. The day use area also has 1 vault restroom, 2 water faucets, and 1 parking area. A trailhead for the Bullards Bar Trail is located in the picnic area parking area. The picnic area is situated between 10 and 40 ft above the reservoir high water line.

The Dark Day Boat Launch facility is located on Dark Day Road. The facility has a 3-lane concrete boat ramp with a 60-foot floating boat dock, one 4-unit vault toilet, 2 picnic tables, and a parking area with 114 spaces for vehicles with trailers and 57 spaces for single vehicles. The existing layout at Dark Day Boat Launch is due in part to the upgrades funded by the California

Department of Boating and Waterways (CDBAW) Boat Launching Facility Grant Program. The upgrade added an additional parking area.

7.8.2.2.4 Garden Point Boat-In Campground

The Garden Point Campground is accessed by boat only and is located on a peninsula on the north side of the reservoir at the junction between the North Yuba River and Willow Creek arms of the reservoir on NFS land (6 acres). The campground is approximately 3.0 mi by boat from the Cottage Creek Boat Launch, and 1.5 mi from the Dark Day Boat Launch. Boat-in access is preferred on the south facing shoreline.

The campground has 16 campsites, which includes 12 single sites (maximum of 6 people for \$22 per night) and 4 double sites (maximum of 12 people for \$44 per night). The single sites consist of a picnic table, a fire ring, and Klondike stove, the double sites consist of 2 picnic tables, a fire ring, and Klondike stove. None of the sites are designed to be accessible to disabled persons. The campground has 3 vault restrooms and no water is available at the campground. The campground has a 2-night minimum on weekends and 3-night minimum on Memorial Day, Independence Day, and Labor Day holiday weekends. Reservations are available by phone for a \$7.50 fee per site.

7.8.2.2.5 Madrone Cove Boat-In Campground

The Madrone Cove Campground is accessed by boat only and is located along the west shore of the North Yuba River arm of the reservoir on NFS land. The campground is approximately 7.5 mi by boat from the Cottage Creek Boat Launch, and 6.0 mi from the Dark Day Boat Launch.

The campground has 10 single campsites (maximum of 6 people for \$22 per night). The sites consist of a picnic table, fire ring, and Klondike stove. None of the sites are designed to be accessible to disabled persons. The campground has 1 vault restroom and no water is available at the campground. The campground has a 2-night minimum on weekends and 3-night minimum on Memorial Day, Independence Day, and Labor Day holiday weekends. Reservations are available by phone for a \$7.50 fee per site.

7.8.2.2.6 Cottage Creek Overflow Campground

This facility is located off of County Road 169 approximately 0.5 mi from its intersection with Marysville Road near the dam. This facility consists of 30 single campsites and has been closed for a number of years by the Forest Service due to low use. Currently, the campground is used for overflow camping when shoreline camping is not available (i.e., when there is not at least 15 ft from water surface to tree line) and when the other camping facilities are at capacity (typically on holiday weekends).

7.8.2.2.7 Emerald Cove Marina and General Store

The Emerald Cove facility is located on New Bullards Bar Reservoir at the Cottage Creek Boat Launch near the dam. The facility consists of a marina and floating general store (Figure 7.8.2-

3). The Emerald Cove Marina provides overnight boat slips and mooring buoys, gasoline pumps, and a floating dump station for houseboat sanitation systems). In addition, the marina provides marine-related repair and maintenance services for nearly any watercraft from complete engine overhauls to cosmetic repairs, including 24-hour emergency watercraft calls/service. In addition, the marina has a variety of boat rentals including luxury houseboats (from 10- to 16-person overnight capacity boats), powerboats (including water ski/wakeboard-specific boats), pontoon boats, and personal watercraft/wave runners. The Emerald Cove General Store is stocked with groceries, clothing, refreshments, and other convenience items for visitors on both day use and overnight trips to New Bullards Bar Reservoir.



Figure 7.8.2-3. Photograph of Emerald Cove Marina including boat slips, floating store and fuel station (photo May 12, 2009).

Source: Emerald Cove Marina 2009

All houseboats moored on the reservoir must obtain houseboat permits from Licensee. To obtain a permit, the houseboat must undergo an inspection to verify the safety, cleanliness, seaworthiness, and functioning sanitation system. The current agreement (USFS-TNF 2009a) between Licensee and Forest Service allows up to 80 houseboats to be moored on the reservoir at one time; and, includes conditions whereby no more than 20 houseboats may be rented to the public and no more than 60 houseboats may be occupied overnight at any give time (USFS-TNF 2009a). In 2009, Licensee permitted a total of 80 houseboats (moored at one time) on New Bullards Bar Reservoir.

In addition, the Concessionaire provides and maintains 30 overnight boat slips for small watercraft that may be rented on a daily or monthly basis and 80 mooring slots.

7.8.2.2.8 Cottage Creek Boat Launch

Cottage Creek Boat Launch is located on YCWA-owned land along the southwest corner of the reservoir off County Road 169 approximately 0.1 mi from its intersection with Marysville Road.

The launch ramp facility consists of a 900-foot long 2-lane concrete launch ramp, 2 vault restrooms (2 units each), and a parking area with 56 spaces for vehicles with trailers. The existing layout at Cottage Creek is due in part to the upgrades completed by CDBAW through a grant from the CDBAW Boat Launching Facility Grant Program. The 2005 upgrades were done with CDBAW grant as part of the CDBAW Boat Launching Facility Grant Program; and included installation of 2 barrier-free, 2-unit restroom buildings (all designed to current accessibility standards), a boat ramp walkway, and a parking area expansion.

7.8.2.2.9 Sunset Vista Point

This scenic overlook is located near the southeast corner of the reservoir approximately 1.0 mi east of New Bullards Bar Dam via Marysville Road and Vista Point Road. The facility consists of a 2-unit vault toilet, 2 picnic tables, and a parking area for 20 vehicles. The facility also serves as a trailhead for the Bullards Bar Trail.

7.8.2.2.10 Moran Road Day Use Area

The Moran Road Day Use Area is located on the west shoreline of New Bullards Bar Reservoir at Moran Cove on NFS land. The day use area is accessible by vehicle 6.4 miles from the Town of Challenge via Oregon Hill Road and Moran Road. The rustic facility consists of a gravel parking area for six to eight vehicles, bulletin board, and road blockade approximately 300 feet from the maximum water surface elevation. The public may access the reservoir shoreline by hiking to the water's edge. The facility provides day use opportunities for fishing, swimming, and car top boat launching.

7.8.2.2.11 Floating Restrooms

Six 2-unit vault floating restroom stations are located on the New Bullards Bar Reservoir for water-based users.

7.8.2.2.12 Developed Trail System in and around New Bullards Bar Reservoir

Five developed trails are located around the New Bullards Bar Reservoir. Two of the developed trails are located within the existing FERC Project Boundary along the southeast shoreline of New Bullards Bar Reservoir. These trails are the Bullards Bar and Schoolhouse trails, which provide nearly 15 miles of non-motorized trail opportunities.

All 5 of these trails are popular with the campers and mountain bikers (YCWA 1993). All of the trail sections are multiple-use trails for hiking, equestrian and mountain biking. None of the trails are designed to be accessible for persons with disabilities or motorized vehicles.

Bullards Bar Trail (14.0 mi)

The Bullards Bar Trail is the primary trail at the reservoir offering an easy, relatively level, and scenic route along the shoreline of the reservoir from the Sunset Vista Point near the dam up to Old Camptonville Road. The trail is located within the existing FERC Project Boundary, except

for the eastern end of the trail (approximately 1.5 mi) which extends beyond the FERC Project Boundary along Willow Creek, where it ends at Old Camptonville Road. The trailhead, including parking, is located at the Sunset Vista Point day use area. The trail is located on NFS and Licensee-owned land and is managed by the Forest Service.

Schoolhouse Trail (0.7 mi)

The Schoolhouse Trail descends approximately 250 ft rapidly to the Bullards Bar Trail along an old heavily shaded road bed. The trailhead including parking is located at the Schoolhouse Campground near campsite 13. The entire trail is located on NFS within the existing FERC Project Boundary land and is managed by the Forest Service.

In addition, three additional trails are located outside the FERC Project Boundary, but connect to the 2 trails located within the existing FERC Project Boundary. These trails include the 8 Ball, 7 Ball and Rebel Ridge trails, which total more than 6 miles of developed trails.

8 Ball Trail (3.8 mi)

The 8 Ball Trail is an alternative to walking or riding on Marysville Road, and connects the Rebel Ridge, 7 Ball and Schoolhouse trails to make several loop routes possible with the Bullards Bar Trail. The trail winds through dense forest and open scrub brush areas paralleling Marysville Road. The trailheads are all located on NFS land at the junction with the 7 Ball Trail, at Marysville Road just before the access road to Schoolhouse Campground, at Schoolhouse Campground and at Dark Day Road. The trail is located outside the existing FERC Project Boundary on NFS land and is managed by the Forest Service.

7 Ball Trail (1.0 mi)

The 7 Ball Trail descends 400 ft to the Bullards Bar Trail on NFS land. The trailhead is located off the paved road that intersects Marysville Road 1.5 and 1.9 mi from the junction with Highway 49. The trail is located outside the existing FERC Project Boundary on NFS land and is managed by the Forest Service.

Rebel Ridge Trail (1.6 mi)

The Rebel Ridge Trail is a moderate hike or ride down to the Bullards Bar Trail that descends nearly 500 ft through the forest. The trailhead including parking is located approximately 0.6 mi from the intersection of Highway 49 and Marysville Road. The trail is located outside the existing FERC Project Boundary on NFS land and is managed by the Forest Service.

7.8.2.2.13 Decommissioned Facilities

Burnt Bridge Campground was located off Oregon Hill Road on NFS land. This campground was closed by the TNF in 1979 due to low use levels. The TNF briefly re-opened the campground on a trial basis, but use was once again too low to justify keeping it open. At present, the campground remains closed to all public uses and the access road is gated. In

addition, the former Frenchy Point Campground on NFS land was also decommissioned by the Forest Service. At present, the campsites remain, but are only used for shoreline camping permits when the water level is low enough.

7.8.3 Recreation Facilities and Opportunities in the Project-Affected River Reaches

7.8.3.1 Recreation Facilities and Opportunities in the North Yuba River

The North Yuba River provides a variety of recreational opportunities upstream of the Project. The following section summarizes these opportunities.

7.8.3.1.1 Fishing Opportunities

In addition to the abundant fishing opportunities in New Bullards Bar Reservoir, the North Yuba River provides fishing opportunities, particularly upstream of New Bullards Bar Reservoir. The North Yuba River upstream of the reservoir is stocked by CDFG, and much of the lower elevation stretch of this river has large boulders, deep pools, some riffles, and gravel bars, which make for quality fishing (CDFG 2009c). When combined with the multitude of river access locations (6 campgrounds and 2 day use areas - see Recreation Facilities section below), the reach has abundant fishing opportunities for rainbow and German brown trout. In addition to the North Yuba River, there are also numerous tributaries feeding the North Yuba River that may be explored by anglers (e.g., Haypress Creek, Salmon Creek, the Downie River, Lavezzola Creek, and Pauley Creek). CDFG fishing regulations on the North Yuba River segments are summarized in Table 7.8.3-1.

Table 7.8.3-1. CDFG fishing regulations on the North Yuba River.

| River Reach | Season and Regulations | Bag Limit (Trout & Salmon Combined) |
|---|--|--|
| From the western boundary of Sierra City to the confluence with Ladies Canyon Creek | <ul style="list-style-type: none"> Last Saturday in April through November 15. Only artificial lures with barbless hooks may be used. | 2 |
| | <ul style="list-style-type: none"> November 16 through the Friday preceding the last Saturday in April. Only artificial lures with barbless hooks may be used. | 0 |
| From Ladies Canyon Creek downstream to New Bullards Bar Reservoir | <ul style="list-style-type: none"> Last Saturday in April through November 15. | 5 |
| | <ul style="list-style-type: none"> November 16 through the Friday preceding the last Saturday in April. Only artificial lures with barbless hooks may be used. | 0 |

Source: CDFG 2009c. 2009-2010 Freshwater Sport Fishing Regulations.

7.8.3.1.2 Recreation Facilities

Camping and day use opportunities exist upstream of the Project on the North Yuba River to the Town of Downieville on NFS land managed by the TNF. These opportunities include 6 developed campgrounds, 2 day use/picnic areas, and 4 developed trails along the river all managed by the Forest Service. In addition, 2 undeveloped campground areas are located on the North Yuba River just upstream of the confluence with Slate Creek near Race Track Point and Slate Range Bar. These sites offer undeveloped, no-fee camping. A summary of the developed camping, day use, and trail facility amenities is provided in Table 7.8.3-2 below.

Table 7.8.3-2. Campgrounds, day use and trail facilities on the North Yuba River, upstream of New Bullards Bar Reservoir to Downieville.

| DEVELOPED CAMPGROUNDS |
|---|
| Ramshorn Campground. The facility is located at 2,200 feet, and consists of 16 campsites with a two-unit vault toilet. No water is available. Site fee of \$21 (\$5 extra vehicle fee). |
| Rocky Rest Campground. The facility is located at 2,200 feet, and consists of 10 campsites with a two-unit vault toilet. Water is available. Site fee of \$21 (\$5 extra vehicle fee). This facility is also a trailhead for the North Yuba Trail. |
| Indian Valley Campground. The facility is located at 2,200 feet, and consists of 17 campsites with a two-unit vault toilet. Water is available. Site fee of \$21 (\$5 extra vehicle fee). |
| Fiddle Creek Campground. The facility is located at 2,200 feet, and consists of 15 campsites with a two-unit vault toilet. Water is available. Site fee of \$21 (\$5 extra vehicle fee). |
| Carlton Flat Campground. The facility is located at 2,200 feet, and consists of 17 campsites with a two-unit vault toilet. Water is available. Site fee of \$21 (\$5 extra vehicle fee). |
| Cal-Ida Campground. The facility is located at 2,200 feet, and consists of 19 campsites with a two-unit vault toilet. Water is available. Site fee of \$21 (\$5 extra vehicle fee). |
| PICNIC AREAS |
| Convict Flat Day Use Area. The site is located at 2,400 feet off Highway 49, approximately 6.5 miles west of Downieville. The site has 3 picnic units, a picnic shelter, pedestal grills and a vault toilet. The site also provides access to the river for fishing and recreational gold panning. |
| Indian Rock Day Use Area. The site is located at 2,600 feet off Highway 49, approximately 5 miles west of Downieville. The site has 3 picnic units and a vault toilet. The site also provides access to the river for fishing and recreational gold panning. |
| TRAILS |
| North Yuba Trail. The trail is 7.5 miles with a moderate rating. The trailhead location is at Highway 49, 7.5 miles west of Downieville at the Rocky Rest Campground. The trail is open year-round. |
| Fiddle Creek Ridge Trail. The trail is 4.0 miles with a moderate-to-difficult rating. The trailhead location is at Highway 49, 8.5 miles west of Downieville and right on Cal-Ida Road for 0.25 mile. The trail is open April to November. |
| Halls Ranch Trail. The trail is 5.5 miles with a difficult rating. The trailhead location is at Highway 49, 5 miles west of Downieville at the Indian Rock Day Use Area. The trail is open April to November. |
| Canyon Creek Trail. The trail is 3.5 miles with an easy rating. The trailhead location is at Highway 49, 10 miles west of Downieville at the bridge over the North Yuba River. The trail is open year-round. |

Source: USFS-TNF 2009c

Most recreation use outside of these developed recreation facilities is undeveloped or dispersed recreation, including activities such as gold panning, fishing, tubing, whitewater kayaking and rafting, swimming, hiking, and mountain biking.

7.8.3.1.3 Existing Whitewater Boating Opportunities

Three known whitewater reaches exist upstream of New Bullards Bar Reservoir, with whitewater opportunities ranging from Class II to Class V depending upon the run and the flow level. One known run exists downstream of the reservoir with a Class V whitewater difficulty rating (New Bullards Bar Dam to Englebright Reservoir). The upper 2.3 mi of this run are on the North Yuba River. The remainder of this run is on the Yuba River, which begins at the confluence of the North and Middle Yuba Rivers (Table 7.8.3-3).

Table 7.8.3-3. Known whitewater boating reaches on the North Yuba River.

| Whitewater Run | Length (mi) | Elevation Range | Gradient (ft per mi) | Flow Range/ Optimum (cubic ft per second (cfs)) | Optimum Flow (cfs) | Whitewater Classification |
|--|-------------|-----------------|----------------------|--|--------------------|---------------------------|
| UPSTREAM OF NEW BULLARDS BAR RESERVOIR | | | | | | |
| Wild Plum Campground to Downieville (Sierra City Run) | 13.0 | 4,240-2,880 | 109 | 250-2,500 (kayak) 700 (raft) | 1,200 | Class IV - V |
| Downieville to Goodyears Bar (Rosasco Canyon Run) | 4.0 | 2,880-2,640 | 60 | 700-1,500 (kayak) 800-3,000 (raft) | 1,200 | Class IV - V |
| Goodyears Bar to Highway 49 Bridge (Goodyears Bar Run) | 8.5 | 2,640-2, 220 | 49 | 700-2,500 (kayak) 800-3,000 (raft) | 1,500 | Class II - V |
| DOWNSTREAM OF NEW BULLARDS BAR RESERVOIR | | | | | | |
| New Bullards Bar Dam to USACE's Englebright Reservoir | 9.8 | 1,450-525 | 94 | 500-1,000 (kayak) | 520-790 | Class V |

Sources: Holbek and Stanley 1998; AW 2009; California Creeks 2009; and YCWA 2008.

In 2008, YCWA worked with American Whitewater (AW) to conduct a whitewater boating flow study on the North Yuba River reach from New Bullards Bar Dam during a scheduled operational outage. Below is a summary of the key whitewater results of this study. Attachment 7.8B contains the complete description of the New Bullards Bar Dam Whitewater Boating Study and results.

Key Results of 2008 New Bullards Bar Dam Whitewater Boating Study (YCWA 2008)

On November 8-9, 2008, YCWA, in coordination with AW, had a team of 5 experienced kayakers run the New Bullards Bar Dam to Englebright Reservoir stretch of the North Yuba River and mainstem Yuba River reaches at flows of 500 cubic ft per second (cfs) and 800 cfs. The following section summarizes the key results of this study.

Reach Length and Whitewater Difficulty

Both the 500 and 800 cfs flow level results are based on a put-in location at New Bullards Bar Dam. However, to be clear, the study results are based on a takeout at Rices Crossing (total reach length of 9.8 mi) at the 500 cfs flow level; and a takeout location at Colgate Powerhouse (total reach length of 8.1 mi) at the 800 cfs flow level. Despite this difference in length on the 2 flow days, the remaining 1.7 mi of the reach below Colgate Powerhouse is virtually all flat-water paddling (Class II whitewater), and, as a result, there are only 2 effects from this difference. First, the shuttle route from Rices Crossing and Colgate Powerhouse is significantly different, as is discussed below. Second, the overall paddle time was higher at the 500 cfs flow level because of the additional 1.7 mi of float time (Table 7.8.3-4). Based on the radio communications between the boaters and YCWA, it is estimated that the travel time from Colgate Powerhouse to Rices Crossing was no more than 30 minutes. When taking this correction into consideration, the average paddling time was roughly 30 minutes shorter at the 800-cfs flow level. The boaters indicated little difference in the overall whitewater difficulty of the reach from 500 cfs to 800 cfs with a range from Class V to V/V+ for both flow levels.

Table 7.8.3-4. Length of run by flow and type of run.*

| Reach | | | Flow Level (cfs) | Average Time | Whitewater Class | |
|----------------------|--------------------|--------|------------------|---------------|------------------|------------|
| Put-In | Takeout | Length | | | Minimum | Maximum |
| New Bullards Bar Dam | Rices Crossing | 9.8 mi | 500 | 5 hrs | Class V | Class V/V+ |
| New Bullards Bar Dam | Colgate Powerhouse | 8.1 mi | 800 | 3 hrs, 24mins | Class V | Class V/V+ |

* = Five respondents

Boatability for Different Types of Craft

Overall, for those boaters who offered an opinion, a consensus view emerged that this reach at these flow levels would work well for hard-shell kayaks. In contrast, the boaters had a consensus opinion that this run at these flows would not work well for rafts or catarafts. The boaters were split in their responses for open canoes and inflatable kayaks on this reach, although more boaters responded that they would not work well for these watercraft (Table 7.8.3-5).

Table 7.8.3-5. Boaters’ opinion of the boatability of the run at each flow for different types of craft (complete run).

| This run at this flow would work well for: | Flow (cfs) | Strongly Disagree | Disagree | Agree | Strongly Agree | No Opinion |
|--|------------|-------------------|----------|-------|----------------|------------|
| Hard shell kayaks | 500 | 0 | 0 | 1 | 4 | 0 |
| | 800 | 0 | 0 | 1 | 4 | 0 |
| Rafts | 500 | 0 | 3 | 0 | 0 | 2 |
| | 800 | 1 | 1 | 0 | 0 | 3 |
| Catarafts | 500 | 0 | 3 | 0 | 0 | 2 |
| | 800 | 1 | 1 | 0 | 0 | 3 |
| Open Canoes | 500 | 2 | 1 | 1 | 0 | 1 |
| | 800 | 1 | 3 | 1 | 0 | 1 |
| Inflatable Kayaks | 500 | 1 | 2 | 1 | 0 | 1 |
| | 800 | 0 | 3 | 1 | 0 | 1 |

Flow Range Evaluations

The boaters (5 respondents) were asked to evaluate a range of flow levels for their craft (hard-shell kayaks) and skill level (expert/elite or Class V boaters) from 150 cfs to 1,000 cfs according to a 5-point scale of acceptability – totally unacceptable (1), unacceptable (2), marginal (3), acceptable (4), and totally acceptable (5). The range of acceptable flows (average rating of 3.5 or higher) for hard-shell kayaks was 500 to 1,000 cfs (Table 7.8.3-6). At the lower end of the flow range from 150 cfs to 350 cfs, the boaters who were comfortable estimating at that flow all rated the flows as “totally unacceptable;” the 400 cfs flow level was still rated as “unacceptable;” and the 450 cfs flow was rated “marginal.” The boater responses display a clear trend that shows this reach is not boatable for hard-shell kayaks at or below 400 cfs.

Table 7.8.3-6. Boaters’ evaluation of flow levels for hard-shell kayaks at the expert/elite skill level.

| Statistic | Flow Level (cfs) | | | | | | | | | |
|---|------------------|-----|-----|-----|-----|-----|-----|-----|-----|-------|
| | 150 | 200 | 250 | 300 | 350 | 400 | 450 | 500 | 750 | 1,000 |
| Average Rating | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.8 | 2.8 | 4.6 | 5.0 | 3.5 |
| Minimum Rating* | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 4 | 5 | 3 |
| Maximum Rating* | 1 | 1 | 1 | 1 | 1 | 3 | 3 | 5 | 5 | 4 |
| No. of Boaters who Responded: “Cannot Estimate At This Flow” | 2 | 2 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 3 |

*Rating Legend: Boaters evaluated each flow based on a 5-point scale of acceptability, whereby a rating of:

- 1 = “totally unacceptable;”
- 2 = “unacceptable;”
- 3 = “marginal;”
- 4 = “acceptable;” and
- 5 = “totally acceptable.”

Specific Boatable Flow Levels

The boaters were asked to identify specific flow levels for different kinds of boating scenarios as identified in Table 7.8.3-7. On average, the lowest flow needed to simply get down the river was 460 cfs; the lowest flow that would provide a quality technical boating experience was 500 cfs; the optimal range that provided the best whitewater characteristics was 520 to 790 cfs; and the highest safe flow, averaged for all evaluations, was 1,060 cfs. The boater responses on the lower end and optimal range for flows are all in a tight cluster, but at the upper end (highest safe flow to get down the river) the variation is much greater, as is typical at this skill level where an extreme boater can often push the limits of what is runnable even for the average expert/elite Class V boater. In fact, only one boater identified any flow higher than 1,000 cfs (1,600 cfs) as the highest safe flow for hard-shell kayaks for an expert/elite Class V boater - the other 4 boaters indicated the highest safe flow was between 800 and 1,000 cfs.

Table 7.8.3-7. Average flow level responses by skill level to various flow scenarios.*

| Flow Scenarios | Average | Minimum | Maximum |
|--|-----------|---------|---------|
| What is the lowest flow you need to simply get down the river in your kayak? | 460 | 450 | 500 |
| What is the lowest flow that provides a quality technical boating experience for this reach? | 500 | 500 | 500 |
| What is the optimal range of flows that provides the best whitewater characteristics for this run? | 520 - 790 | 500 | 800 |
| What do you feel the highest safe flow for your craft and skill level? | 1,060 | 800 | 1600 |

= Five respondents

When asked if they would return if the flows were in their respective optimal range, 3 of the 5 boaters responded “multiple times every year,” whereas the remaining 2 responded “as often as I could.” None of the boaters responded that they would “never return.”

The boaters identified several whitewater reaches that are similar to the New Bullards Bar Dam Reach in California. Reaches along the lower South Yuba River, particularly the Highway 49 to Bridgeport and Purdons to Highway 49 reaches, were identified the most for this characteristic (7 responses). The other similar reaches identified for this characteristic were the South Fork Merced River (4 responses), the Clavey River (2 responses), Cherry Creek (1 response), the Middle Fork of the Feather River (1 response) and the Loves Falls run on the North Yuba River

(1 response). Only 1 boater indicated that he would not favor the New Bullards Bar Dam run over the others that he uses now (South Yuba River reaches below Purdons, South Fork of the Merced and the Clavey River). The remaining 4 boaters indicated they would favor the New Bullards Bar Dam Reach over at least one of the other similar reaches they listed. In addition, the boaters identified how these similar established California reaches compared to the New Bullards Bar Dam Reach (Table 7.8.3-8). In most cases, the boaters indicated that the similar reaches were “about the same” as the New Bullards Bar Dam Reach; in 2 instances, the New Bullards Bar Dam Reach was rated “better.”

Table 7.8.3-8. How New Bullards Bar Dam Run compares to similar established whitewater reaches in California.

| Whitewater Reach | Total Responses | No. of Responses | | |
|--|-----------------|--------------------------------------|-------------------|-----------|
| | | The New Bullards Bar Dam Reach is... | | |
| | | ...Worse | ...About the same | ...Better |
| South Yuba River, Purdons to Highway 49 | 3 | 0 | 3 | 0 |
| South Yuba River, Highway 49 to Bridgeport | 4 | 1 | 2 | 1 |
| South Fork of the Merced River | 4 | 0 | 4 | 0 |
| Clavey River | 2 | 0 | 2 | 0 |
| North Yuba River, Loves Falls | 1 | 0 | 1 | 0 |
| Cherry Creek | 1 | 0 | 0 | 1 |
| Middle Fork of the Feather River | 1 | 0 | 1 | 0 |

Study Conclusions

Based on the study results, the major findings for this study reach were:

- The reach is best suited for hard-shell kayaks. While rafting may be possible in this reach, it probably is possible only for a team of elite rafters. This reach is not recommended for commercial rafting due to the severe consequences and technical portaging and maneuvering around boulders and rapids.
- The whitewater difficulty is Class V to V+ with an overall boatable range of 500 cfs to 1,000 cfs. The optimal boatable range of 520 to 790 cfs.
- The reach consists of numerous Class IV/V rapids and roughly 12 Class V to V+ rapids with 3 major portages with 1 very difficult portage below the confluence with the Middle Yuba River (at the “S-Turn” rapid).
- The boaters preferred put-in location is immediately below New Bullards Bar Dam via the private Project road to the base of the dam. At present, Licensee does not allow vehicle access on this Project road that leads to the base of the New Bullards Bar Dam for security reasons.
- The preferred takeout location is at Colgate Powerhouse, resulting in an 8.1 mi boatable reach.
- Vehicle access to the river at the put-in would be the ideal, but hiking down the access road was manageable and greatly preferred over hiking/scrambling down the canyon walls to the river.

- The study reach is similar to some other Northern California whitewater reaches such as the South Yuba River from Highway 49 to Bridgeport and Purdons to Highway 49, Cherry Creek, South Fork Merced River, and the Clavey River.

The whitewater and non-whitewater characteristics for the New Bullards Bar Dam Reach are summarized in Table 7.8.3-9.

Table 7.8.3-9. Summary of existing and study information on the New Bullards Bar Dam Reach.

| |
|---|
| Put In: Base of New Bullards Bar Dam. Access to the put-in occurs from the Town of Nevada City via Highway 49, Moonshine Road and Marysville Road, which are all paved. Access continues by crossing the dam road and taking the first left and driving to the gated dam access road. The 0.75-mile-long, paved, private, gated road (posted "No Trespassing") accesses the base of New Bullards Bar Dam. |
| Take-out(s): Two options - Rices Crossing and Colgate Powerhouse. Preferred Option - Colgate Powerhouse - Access to Colgate Powerhouse from the Town of Dobbins occurs via Lake Francis Road. This access is entirely paved. Alternate: Rices Crossing (near Bridgeport State Park) - Access to the takeout at Rices Crossing occurs from the Bridgeport State Park via a dirt road leading roughly 2 miles north. The turnoff is approximately 0.3 mile east of the bridge over the South Yuba River. Rices Crossing is the more straightforward takeout access of the two options from the Grass Valley/Nevada City area. It may also be easier to find due to the proximity to the popular South Yuba River takeout at Bridgeport. |
| Shuttle: Two options based upon the takeout location (Rices Crossing or Colgate Powerhouse) Preferred Shuttle (from Colgate Powerhouse): Approximately 10 miles (20 minutes) to New Bullards Bar Dam. The route starts by traveling north on Lake Francis Road (4.1 miles) into Dobbins, CA; taking a right onto Old Dobbins Road (0.2 miles); turn right onto Marysville Road (5.7 miles) to the gravel parking area near the gated access road to New Bullards Bar Dam. Alternate Shuttle (from Rices Crossing): The shuttle is roughly 21 miles (45 minutes) to New Bullards Bar Dam. The route starts by traveling south from Rices Crossing (1.5 miles); taking a left on Pleasant Valley Rd. (6.5 miles); left onto Hwy 49 (5.2 miles); left on Moonshine Rd. (4.9 miles); left on Marysville Rd. across New Bullards Bar Dam (2.0 miles); after dam head south on Marysville Rd. (0.75 miles) to gated access road on left. One gate (locked) occurs along the shuttle route at the put-in road that leads to the base of New Bullards Bar Dam. |
| Difficulty: Class V to V+ (solid Class V at 500 cfs; Class V+ at 800 cfs) |
| Watercraft: Best suited for hard-shell kayaks; rafting may be possible but likely only for a team of elite rafters; not recommended for commercial rafting due to the severe consequences and technical portaging and maneuvering around boulders and rapids required of most if not all rafters involved. |
| Portages: Three – one on the North Yuba River and two on the Yuba River (including the most difficult) |
| Estimated Boatable Flow Range: 500 – 1,000 cfs |
| Estimated Optimum Flow: 520 - 790 cfs |
| Length of Reach: Preferred Run (takeout at Colgate Powerhouse): 8.1 miles. Put-in is at New Bullards Bar Dam and the Takeout is at Rices Crossing. In general, this run contains two distinct segments: 1) North Yuba River from New Bullards Bar Dam to Middle Yuba River confluence (2.3 miles); and 2) Yuba River from the Middle Yuba River confluence to Colgate Powerhouse (5.8 miles) Alternate Run (takeout at Rices Crossing): 9.8 miles – This run also includes 1.7 miles of the Yuba River downstream of Colgate Powerhouse. |
| Run Time (est.): For hard-shell kayaks: a) 3 hours to Colgate Powerhouse; b) 5+ hours to Rices Crossing. |
| Elevation Range: 925 vertical feet. The reach ranges in elevation from 1,450 feet at New Bullards Bar Dam on the North Yuba River to elevation 525 feet at Rices Crossing on the Yuba River. |
| Gradient: 94 feet per mile. Smaller scale changes in gradient occur throughout the 3 sub-reaches detailed above. The estimated gradient by sub-reach is as follows: 1) New Bullards Bar Dam to Middle Yuba River confluence sub-reach is about 135 feet per mile; 2) Middle Yuba River confluence to Colgate Powerhouse sub-reach is 101 feet per mile; and 3) Colgate Powerhouse to Rices Crossing sub-reach is 12 feet per mile. |
| Streamflow Gages: Currently, a streamflow gage with realtime flow information does not exist on the North Yuba River below New Bullards Bar Dam. Boaters drive to the dam to see if it is a boatable flow. |
| Maps: USGS 1:24,000 topographic quadrangles: Challenge and French Corral |

7.8.3.2 Recreation Facilities and Opportunities in the Middle and Mainstem Yuba River from Our House Diversion Dam to Englebright Reservoir

7.8.3.2.1 Fishing Opportunities

Fishing on the Middle Yuba River is relatively difficult because much of the river is remote and physically challenging to access, and lacks well-known public roads providing direct access to

the river. One of the few access points is at the Highway 49 Bridge. Angling in this area is best for rainbow and German brown trout (CDFG 2009c).

7.8.3.2.2 Recreation Facilities

Several camping and day use opportunities exist on the Middle Yuba River below Our House Diversion Dam - a developed day use area (Oregon Creek) and developed campground (Moonshine). Oregon Creek Day Use Area is located on NFS land managed by TNF at the confluence of Oregon Creek and the Middle Yuba River. The site consists of 16 picnic sites, a swimming/wading area, and is adjacent to the historic Oregon Creek covered bridge. Moonshine Campground is located on Highway 49 between Nevada City and Downieville, on the Middle Yuba River. The facility is privately owned, and provides family camping opportunities with access to the river for swimming, gold panning and other river-related recreation.

Developed recreation facilities do not exist on the mainstem Yuba River below New Bullards Bar Reservoir; however, public river access is available from the Yuba County side (river right) at New Colgate Powerhouse via Lake Francis Road; and also at Rice's Crossing on the Nevada County side.

At Englebright Reservoir, a variety of recreation facilities operated by the USACE Sacramento District are available. The reservoir offers picnicking, angling, boat-in camping, houseboating, and boating. In addition, fishing access provides angling opportunities for rainbow trout (5,000 of which are stocked by CDFG annually); largemouth and smallmouth bass; and catfish (Stewardship Council 2007). Boating enthusiasts are provided with 2 paved boat launches and over 100 boat-in campsites (USACE 2009). Each campsite consists of a table, fire grill, lantern hanger, and several tent pads with portable restrooms centrally located in all camping areas. Drinking water is available near each launch ramp. A marina offers boat rentals, mooring, fuel, sanitation, and store facilities.

Most recreation use outside of these developed recreation facilities along the Middle Yuba River and mainstem Yuba River is undeveloped or dispersed recreation, including activities such as gold panning, fishing, tubing, whitewater kayaking and rafting, swimming, hiking, and mountain biking.

7.8.3.2.3 Existing Whitewater Boating Opportunities

Two non-commercial kayaking reaches occur on the Middle Yuba River below Our House Diversion Dam. The best opportunity for boating both these reaches is in spring with adequate runoff. The first, and well-known, run is the "Our House Dam Run," which has a typical put-in at Our House Diversion Dam and the takeout is at the Highway 49 Bridge. The run is a Class III – V run with an optimum flow of 1,000 cfs (Holbeck and Stanley 1998). Table 7.8.3-10 provides additional details for the whitewater run. The second and lesser-known run occurs from the Highway 49 Bridge downstream to either Colgate Powerhouse or Rices Crossing. Taking out at Rices crossing adds 1.5 mi of paddling on mostly flat water with little to no whitewater features (see Existing Whitewater Boating Opportunities in Section 7.8.4.1 above for details on

the lower stretch following the confluence with North Yuba River). The area around Rices Crossing is on private land.

Table 7.8.3-10. Known whitewater boating reaches on the Middle and mainstem Yuba River.

| Whitewater Run | Length (mi) | Elevation Range | Gradient (ft per mi) | Flow Range (cfs) | Optimum Flow Range (cfs) | Whitewater Classification |
|-------------------------------------|-------------|-----------------|----------------------|--|--------------------------|---------------------------|
| Our House Dam to Highway 49 | 8.0 | 1,958-1,430 | 65 | 600-1200 (III-IV+) 1200-2000 (IV-V) | 1000 | Class III - V |
| Highway 49 to Englebright Reservoir | 12.0 | 1,430-550 | 73 | 600-1000 (kayak) | 800 | Class IV - V |

Sources: Holbek and Stanley 1998; AW 2009; and California Creeks 2009.

7.8.4.3 Recreation Facilities and Opportunities in the Mainstem Yuba River Downstream of Englebright Dam

The 24-mi long lower Yuba River extends from Englebright Dam to the confluence with the Feather River. In general, hiking and boating opportunities in the lower Yuba River are limited by poor vehicular public access. Public river access is generally limited to 3 primary locations on the 24-mi long stretch of river: at Parks Bar, approximately 5 mi northeast of the town of Smartville;⁴ at Sycamore Ranch, near the Dry Creek and lower Yuba River confluence; and at the Hallwood Avenue Access, approximately 5 mi northeast of Marysville (YCWA et al. 2007). Where access is available, fishing, picnicking, rafting, kayaking, canoeing, tubing, and swimming are the dominant recreational uses. The lower Yuba River offers Chinook salmon, steelhead, American shad and striped bass fishing.

7.8.4.3.1 Fishing Opportunities

The Yuba River below Englebright Dam is regarded as a high quality fishing reach and offers excellent American shad, Chinook salmon, steelhead, and striped bass fishing (YCWA et al. 2007). However, access is limited because it is a fish hatching area and private land along the river is pervasive (Stewardship Council 2007). Of note, CDFG provides angling opportunities via a raffle to a limited number of anglers with specific regulations (i.e., anglers must fish from the shore, wade or use only non-trailer watercraft) (CDFG 2006). The Yuba River from the Highway 20 Bridge downstream to Sycamore Campground (private facility) is a wild trout fishery, which also offers excellent American shad, Chinook salmon, steelhead, and striped bass fishing (YCWA et al. 2007). CDFG fishing regulations on the mainstem Yuba River are summarized in Table 7.8.3-11.

⁴ In 2008, the people of this community petitioned to have the name changed to Smartsville, with an 's' in the middle of the name. However, the USGS gage refers to the former spelling of the community name. Therefore in this document, the community is referred to as such.

Table 7.8.3-11. CDFG fishing regulations on the mainstem Yuba River.

| River Reach | Season and Regulations | Bag Limit (Trout & Salmon Combined) |
|---|---|--|
| From mouth to Highway 20 Bridge | <ul style="list-style-type: none"> All year. Only artificial lures with barbless hooks may be used. | 1 hatchery trout or 1 hatchery steelhead Closed to salmon fishing. No take or possession of salmon. |
| From Highway 20 Bridge to Englebright Dam | <ul style="list-style-type: none"> Dec. 1 through Aug. 31. Only artificial lures with barbless hooks may be used. | 1 hatchery trout or 1 hatchery steelhead Closed to salmon fishing. No take or possession of salmon. |

Source: CDFG 2009c. 2009-2010 Freshwater Sport Fishing Regulations.

7.8.3.2.3 Recreation Facilities

Below Englebright Dam, recreation facilities are generally found only at the Spencerville Wildlife Area. The river also contains several private recreation sites along the river downstream from Englebright Dam towards Browns Valley (Sycamore Campground) and beyond.

The Spenceville Wildlife Area is a CDFG-managed wildlife area located 1 mi down Smartville Road via Highway 20, approximately 18 mi from Marysville. The Spenceville Wildlife Area is comprised of 11,887 acres of blue oak gray pine grassland characteristic of the Sierra Foothills with terrain varying from 200 to 1,200 ft of elevation (CDFG 2009c). Recreational uses at the wildlife area include hunting, fishing, camping, dog training, equestrian trail riding, bicycling, archery, and target shooting.

7.8.3.2.4 Existing Whitewater Boating Opportunities

Two whitewater boating reaches occur along the Yuba River below USACE’s Englebright Reservoir. However, only the 6-mi Class III whitewater boating run below Englebright Dam downstream to the Highway 20 Bridge (Parks Bar) is well-documented (Table 7.8.3-12). The second run has very little documented information other than it is rated as a Class II whitewater run from Parks Bar downstream to the Hallwood Avenue access; and provides opportunities for introductory kayaking and canoeing.

Table 7.8.3-12. Known whitewater boating reaches on the Mainstem Yuba River.

| Whitewater Run | Length (mi) | Elevation Range | Gradient (ft per mi) | Flow Range (cfs) | Optimum Flow (cfs) | Whitewater Classification |
|--------------------------------------|-------------|-----------------|----------------------|--------------------------|--------------------|---------------------------|
| Englebright Dam to Highway 20 Bridge | 6.0 | 260-200 | 15 fpm | 1,500–3,500 (kayak/raft) | 2,000 | Class III |

Sources: Holbek and Stanley 1998; AW 2009; and California Creeks 2009

7.8.4 Current Project Recreation Use Levels and Facility Occupancy Rates

7.8.4.1 Project Recreation Use Estimates

The concessionaire (Emerald Cove Marina) is responsible for collecting the recreation use data at all Project recreation facilities. Licensee developed the FERC Form 80 Recreational Use Reports and total visitation levels using the concessionaire data.

7.8.4.1.1 Total Visitation

In 2008, the Project experienced a total of 104,194 Recreation Days (RD), with similar levels of day-time use (53,558 RDs) and overnight use (50,636 RDs) (YCWA 2009a). In 2002, the Project experienced a total of 96,886 visitor days with nearly equal levels of day-time and overnight use (48,407 day-time visitor days and 48,479 overnight visitor days (YCWA 2003b). In 1996, the Project had a total of 65,648 visitor days with only 10,941 day-time visitor days (or 16 percent of total visitation) as compared to 54,707 overnight visitor days (or 84 percent of total visitation) (YCWA 1997).

Overall, recreation use levels have increased by 59 percent since 1996. Much of that increase is due to the significant increase in day time use at New Bullards Bar Reservoir, which increased by 390 percent from 1996 to 2008. In contrast, overnight use has declined by 7 percent over the same time period (Table 7.8.4-1).

Table 7.8.4-1. Project recreation use in Recreation Days at New Bullards Bar Reservoir in 1996, 2002, and 2008 (based on the FERC Form 80 Recreation Report every 6 years).

| Year | Day Use | Overnight Use | Total Use |
|---------|---------|---------------|-----------|
| 1996 | 10,941 | 54,707 | 65,648 |
| 2002 | 48,407 | 48,479 | 96,886 |
| 2008 | 53,558 | 50,636 | 104,194 |
| Average | 37,635 | 51,274 | 88,909 |

Source: YCWA, Form 80 Recreation Reports 1997, 2003 and 2009.

7.8.4.1.2 Site Occupancy Data

Overall, the total number of sites occupied has ranged from 5,543 to 6,240 over the 6-year period from 2003 to 2008 (Table 7.8.4-2). The lowest number was observed in 2003 and followed by the highest number in 2004, a 13 percent increase. However, since 2004 the total number of sites occupied has risen and fallen with each next year, and has hovered around 6,000 sites occupied.

Table 7.8.4-2. Total number of camping sites occupied at New Bullards Bar Reservoir Campgrounds from 2003 through 2008.

| | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 |
|--------------------|-------|-------|-------|-------|-------|-------|
| Total Camping Days | 5,543 | 6,240 | 5,936 | 6,170 | 5,868 | 5,962 |
| % Change | n/a | +13% | -5% | +4% | -5% | +2% |

Source: Emerald Cove Marina use data (provided on September 10, 2009).

When examining the distribution of camping use, Schoolhouse Campground receives the greatest amount of visitation with 60 percent of all the developed sites occupied in 2008, which is consistent since it is the largest campground on the Project.

Overall, the 5 campgrounds experienced similar levels of use in 2007 and 2008 at 28 percent occupied, on average (Table 7.8.4-3). Hornswoggle Group and Dark Day campgrounds have the highest percent occupancy at just over 30 percent capacity. Schoolhouse and Garden Point Boat-In campgrounds are slightly lower and in the 27 to 30 percent range. Madrone Cove Boat-In Campground had the lowest occupancy of the developed campgrounds - near 20 percent capacity. The concessionaire (Emerald Cove Marina) does not have the camping data broken out by weekend and weekday time periods. However, the concessionaire stated that the developed campgrounds are always at or near 100 percent occupied on weekend days, and near empty on weekdays (Robertson, pers. comm., 2009). Furthermore, the concessionaire stated that this pattern of use has been skewed towards weekends since 2006 (Robertson, pers. comm., 2009).

Table 7.8.4-3. Number of sites occupied and percent capacity at each of the New Bullards Bar Reservoir campgrounds from 2007 through 2008.

| Developed Campground | Statistic | 2007 | 2008 | Average |
|----------------------|-----------------------|--------------|--------------|--------------|
| Hornswoggle Group | Sites Occupied | 341 | 337 | 339 |
| | % Occupied | 31% | 31% | 31% |
| Schoolhouse | Sites Occupied | 2,892 | 3,082 | 2987 |
| | % Occupied | 28% | 29% | 28% |
| Dark Day | Sites Occupied | 609 | 571 | 590 |
| | % Occupied | 33% | 31% | 32% |
| Garden Point Boat-In | Sites Occupied | 896 | 805 | 851 |
| | % Occupied | 30% | 27% | 29% |
| Madrone Cove Boat-In | Sites Occupied | 398 | 347 | 373 |
| | % Occupied | 21% | 19% | 20% |
| Total | Sites Occupied | 5,136 | 5,142 | 5,139 |
| | % Occupied | 28% | 28% | 28% |

Source: Emerald Cove Marina (concessionaire) use data (provided on September 10, 2009).

7.8.4.1.3 Undeveloped Shoreline Camping

In addition to the developed camping use, undeveloped shoreline camping occurs via a permit from the concessionaire. Only 44 permits are available for undeveloped shoreline camping; and this opportunity is only available when the water elevation is 15 ft below the tree line due to the fire hazard. As a result, early in the recreation season (spring and early summer), undeveloped shoreline camping is not permitted. However, in 2007 and 2008, undeveloped shoreline camping accounted for 732 and 820 sites occupied (less than 10 percent of the total shoreline permits allowable); and less than 14 percent of all the camping at Bullards Bar Reservoir (developed or undeveloped) in 2007 and 2008 (Emerald Cove Marina 2009).

7.8.4.1.4 Undeveloped Recreation Use at Log Cabin and Our House Diversions

The Our House Diversion Dam and Log Cabin Diversion Dam impoundments provide day use recreation opportunities for visitors. Based on a 1994 recreation observation survey conducted by Licensee, approximately 1,200 visitors utilized the Our House Diversion Dam area and 54 visitors utilized Log Cabin Diversion Dam area during the 198 day recreation season from late April to mid-November (YCWA 1995). The 2 primary recreational activities at these areas were fishing and swimming (YCWA 1995). Note that Licensee, with the permission of the Forest Service, has installed and keeps locked a vehicular gate on NFS land on the road to Log Cabin Diversion Dam.

7.8.4.1.5 Boating Use Data

In the 1993 Revised Exhibit R, YCWA and the Forest Service established a maximum water surface carrying capacity of 420 boats-at-one-time (BAOT) (YCWA 1993, p. 6-13). The carrying capacity of 420 BAOT accounted for a range of water recreation opportunity spectrum (WROS⁵) settings including: Urban Natural (estimated capacity of 144 BAOT), Rural Natural (estimated capacity of 180 BAOT), and Semi Primitive (estimated capacity of 96 BAOT), for a total estimated capacity of 420. Since 2000, the Forest Service has been monitoring the peak number of BAOT on the reservoir (Table 7.8.4-4).

In 2009, the peak BAOT was 404 or 96 percent of capacity. Over the past 10 years, peak boat use exceeded the carrying capacity of 420 BAOT in six years (2001-2004 and 2006-2007); all of these days were holiday days; and the number of days beyond capacity was never more than two days. In fact, all of the peak BAOT observations over the 10-year period occurred on holiday days.

Table 7.8.4-4. Peak number of observed boats-at-one-time (BAOT), peak capacity and the number and type of carrying capacity exceedence days.

| Year | Peak No. of BAOT | Date of Peak Use | Peak Capacity | Beyond Carrying Capacity Data (max. capacity = 420 BAOT) | |
|-------------------|------------------|------------------------------------|---------------|---|----------|
| | | | | No. of Days | Day Type |
| 2000 | 388 | 28-May (holiday) | 92% | 0 | -- |
| 2001 | 452 | 2-Sep (holiday) | 108% | 2 | Holiday |
| 2002 | 453 | 6-July (holiday) | 108% | 2 | Holiday |
| 2003 | 425 | 6-July (holiday) | 101% | 2 | Holiday |
| 2004 | 474 | 30-May (holiday) | 113% | 1 | Holiday |
| 2005 ¹ | 410 | 3-Jul (holiday) 4-Sep (holiday) | 98% | 0 | -- |
| 2006 | 424 | 3-Sep (holiday) | 101% | 1 | Holiday |

⁵ The Water Recreation Opportunity Spectrum (WROS) is a tool to understand the type and location of six types of water related recreation opportunities, otherwise known as WROS classes. The six WROS classes range across a spectrum of urban, suburban, rural developed, rural natural, semi primitive, and primitive classes. Each WROS class is defined by a particular "package" of activities, setting attributes, experiences, and benefits. Refer to the Water Recreation Opportunity Spectrum Users' Guidebook for additional information at: http://www.usbr.gov/pmts/planning/wros/wros_report.pdf

Table 7.8.4-4. (continued)

| Year | Peak No. of BAOT | Date of Peak Use | Peak Capacity | Beyond Carrying Capacity Data (max. capacity = 420 BAOT) | |
|------|------------------|------------------|---------------|---|----------|
| | | | | No. of Days | Day Type |
| 2007 | 452 | 1-Sep (holiday) | 108% | 1 | Holiday |
| 2008 | 403 | 30-Aug (holiday) | 96% | 0 | -- |
| 2009 | 404 | 4-Jul (holiday) | 96% | 0 | -- |

Source: Forest Service annual recreation use monitoring data

¹ Boating use was down in 2005 due to closures at Dark Day Boat Ramp, Day Use Area and Campground for reconstruction of Dark Day Road.

7.8.5 Recreation Needs Identified in Management Plans

Management plans that cover recreation resources within the Project Vicinity include the California Department of Parks and Recreation’s California Outdoor Recreation Plan (CORP), Sierra County and Yuba County general plans, TNF and PNF Land and Resource Management Plans, and the USDOJ Fish and Wildlife Service (USFWS) Recreational Fisheries Policy. Below is a summary of the recreation needs identified in the management plans applicable to the Project Vicinity.

7.8.5.1 California Outdoor Recreation Plan (CORP)

The 2008 CORP, among other things, identifies and prioritizes outdoor recreation opportunities and constraints most critical in California. The plan lists the following 7 major priority areas that comprise the state’s strategy for meeting California’s outdoor recreation needs (CDPR 2009a, pp. 9-10):

- Projects that provide opportunities for the top 15 outdoor recreation activities identified in the latent demand scoring in the survey of Public Opinions and Attitudes on Outdoor Recreation in California (Table 7.8.6-1).
- Projects that provide or improve outdoor recreation opportunities in the geographic region.
- Projects that provide outdoor recreation activities for children.
- Projects that provide outdoor recreation opportunities for those underserved communities.
- Projects that support the wetland priorities being pursued by the state’s wetland preservation organizations.
- Projects that support the goals of California’s Recreation Policy of a) adequacy of recreation; b) opportunities; c) leadership in recreation management; d) recreation’s role in a healthier California; e) preservation of natural and cultural resources; and f) accessible recreation experiences.
- Projects that develop the trail corridors identified in the 2002 California Recreational Trails Plan and its scheduled update.

7.8.5.2 Survey on Public Opinions and Attitudes in Outdoor Recreational Survey (POAOR) in California 2009

The 2009 Survey on Public Opinions and Attitudes in Outdoor Recreation in California (POAOR), an element of the CORP, identify the following as the top 15 recreational activities in California with the highest latent demand (Table 7.8.5-1). These are activities that Californians would participate in, from a statewide perspective, if more facilities and opportunities were provided.

Table 7.8.5-1. California’s top 15 recreation activities with high latent demand.

| Rank | Activity |
|------|---|
| 1 | Walking for fitness or pleasure |
| 2 | Camping in developed sites with facilities such as tables and toilets |
| 3 | Bicycling on paved surfaces |
| 4 | Day hiking on trails |
| 5 | Picnicking in picnic areas |
| 6 | Beach activities |
| 7 | Visiting outdoor nature museums, zoos, gardens or arboretums |
| 8 | Visiting historic or cultural sites |
| 9 | Attending outdoor cultural events |
| 10 | Off-highway vehicle use |
| 11 | Driving for pleasure, sightseeing, driving through natural scenery |
| 12 | Swimming in a pool |
| 13 | Wildlife viewing, bird watching, viewing natural scenery |
| 14 | Outdoor photography |
| 15 | Swimming in fresh water lakes, rivers and/or streams |

Source: CDPR 2009b

Of the top 10 activities that Californians would participate in more if available, the Project, specifically New Bullards Bar Reservoir, provides opportunities in many of the listed recreational activities to some degree, including the top 6 activities. Furthermore, in the POAOR survey, Californians were asked about their willingness to pay for their top recreation activities. For reference, only overnight camping activities and boat mooring/storage require fees at New Bullards Bar Reservoir; no day use activities require any fees. Results of the 2009 POAOR found that, in general, respondents were willing to pay more for activities that required the use of facilities such as camping, hunting, fishing, target shooting, horseback riding, sailing, and off-road vehicle use (CDPR 2009b). Furthermore, respondents were willing to pay greater fees for overnight facilities and specialized activities, while respondents were less likely to pay for activities that did not require any specialized personal equipment or equipment or facilities provided by parks, and individuals were less willing to pay for an activity that they already perceive as “free” (such as day hiking and walking for fitness and pleasure) (California State Parks 2009). These POAOR findings generally are compatible with the fee schedule at the Project recreation facilities at New Bullards Bar Reservoir, where appropriate fees are charged for overnight visitation trips associated with facilities (camping, houseboating, boat mooring, etc.), and day use activities/facilities (picnicking) and non-facility based activities (hiking, walking for pleasure) are free of charge. At present, no fees are required for the use of the boat

launch facilities at New Bullards Bar Reservoir; however, future measures to prevent invasive mussels (Quagga/Zebra mussels) may result in fees for the use of boat launch facilities.

Other relevant findings from the 2009 POAOR survey include (CDPR 2009b, pp. i-ii):

- More than two-thirds (68 percent) of Californians reported spending the same or more time in outdoor recreation activities compared to 5 years ago.
- Most Californians participated in walking for fitness or pleasure (74 percent). Other activities with high percentages of participants included picnicking in picnic areas; driving for pleasure; sightseeing; driving through natural scenery; beach activities; and visiting outdoor nature museums, zoos, gardens, or arboretums.
- The park facilities and services that Californians thought were most important to them were play areas for young children, wilderness type areas where no vehicles or development are allowed, environmental and outdoor education programs, multi-use turf areas for field sports, picnic sites for large groups, trails for multiple, non-motorized activities, and hard surface trails.
- The majority of Californians visited highly developed parks and recreation areas, developed nature-oriented parks and recreation areas, historical or cultural buildings, sites, or areas, and natural and undeveloped areas 1 to 5 days during the past 12 months.

7.8.5.3 Sierra County General Plan

The Sierra County General Plan (Sierra County 1996) does not specifically require a Parks and Recreation Element; however, the element in this plan is intended to discuss recreation issues required in other elements, and other recreation issues important to the county. The stated Parks and Recreation Element goals are to provide: 1) a wide variety of recreational opportunities in the County that direct priority to county needs; and 2) a level of public and private recreation and tourism that does not destroy the quality of life or environmental quality of the County (Sierra County 1996).

7.8.5.4 Yuba County General Plan

The Yuba County General Plan (Yuba County 2007) identifies Parks and Recreation needs as part of the Land Use, Open Space, Circulation, Open Space and Conservation Elements of the plan. In this section, the plan generally discusses park and recreation needs for the county, which primarily deal with recreational trail needs. Overall, the Yuba County Parks Master Plan (Yuba County 2008b) addresses the county's recreation goals and needs. Several of the trail needs and goals in the plan are relevant to the Project, including: 1) to integrate trails for pedestrians, bicycles and equestrian use into development projects; 2) to provide and design trails in conjunction with new development projects in a manner which allows for the eventual development of a countywide trails network which links areas of the county together; and 3) to integrate trails into future recreational sites, including linkages between sites, and linkages between sites and urban areas, where possible.

7.8.5.5 Yuba County Parks Master Plan (2008)

The ultimate objective of the Yuba County Parks Master Plan (Master Plan, adopted February 19, 2008) is to develop a footprint to direct park development within the county. In general, the Master Plan includes: a) a set of goals and objectives that can be used to evaluate any new/future projects; and b) makes recommendations about how to fund new parks and facilities that ensures they remain an asset to the community far into the future. Several sections of the Master Plan apply specifically to the Project.

First, New Bullards Bar Reservoir and its associated recreational facilities (camping, picnicking, boating, and trails) are categorized as a special use site by the county. Second, trail development and acquisition are a stated goal of the Master Plan to address the needs for popular recreation trail activities, such as horseback riding, bicycling, walking, and hiking in Yuba County. The Bullards Bar Trail at New Bullards Bar Reservoir is identified as a connector trail for a greater regional trail system/loop by the county called the Bullards Bar Regional Trail Loop. This regional trail would connect a proposed trail system in the Dobbins-Oregon House community to the existing 14-mi Bullards Bar Trail and then extend around the reservoir to Camptonville and connect to the proposed Camptonville Community Park (Yuba County 2008b).

7.8.5.6 Tahoe National Forest Land and Resource Management Plan (LRMP)

The south and east shoreline of New Bullards Bar Reservoir are within the TNF on NFS land. These lands are managed in accordance with the 1990 TNF LRMP, as amended. The TNF LRMP identifies certain goals relevant to Project Area recreation, including:

- Provide a broad spectrum of dispersed and developed recreation opportunities in accordance with identified needs and demands.
- Work with cooperating water agencies and irrigation districts to maintain desirable water levels on reservoirs through the entire length of the recreation season.
- Recreation management will be in concert and cooperation with appropriate city, county, state, and other federal agencies.
- Manage recreation use on lands it administers using the Recreation Opportunity Spectrum (ROS) management system.
- Understand the value, scarcity, and desired retention of semi-primitive lands within the forest.

Under the ROS system, recreation facilities, recreation activities, and landscapes are managed to provide a range of recreation opportunities, including Primitive, Semi-primitive non-motorized, Semi-primitive motorized, Roaded Natural, Rural, or Urban recreation opportunities.

7.8.5.7 Plumas National Forest Land and Resource Management Plan

The northwest shoreline of New Bullards Bar Reservoir from the dam to the North Yuba River inflow is within the PNF on NFS land. These lands are managed in accordance with the PNF

LRMP as amended. Forest wide recreation goals and policies within the PNF LRMP relevant to the Project are (USFS 1988):

- Provide for a variety of forest-related recreation, and coordinate recreation with other resource use through the ROS system.
- Encourage growth of privately operated facilities serving public needs.
- Improve and expand developed facilities and trails to meet demand while reducing unit costs and protecting other resources.
- Complete acquisition of Wild and Scenic River lands and easements.
- Minimize conflicts between various recreational users.
- Manage selected unroaded areas to provide for semi-primitive opportunities.
- Allow use of off-road vehicles (ORVs) wherever user conflicts or unacceptable resource damage are unlikely. Provide separate ORV routes wherever conflicting uses are substantial.

7.8.5.8 USFWS Fisheries Recreational Policy

This document describes the USFWS recreational fisheries management program. It outlines the following goals:

- Effect the preservation and/or increased productivity of fishery resources.
- Ensure and enhance the quality, quantity, and diversity of recreational fishing opportunities.
- Develop and enhance partnerships between governments and the private sector for conserving and managing recreational fisheries.
- Cooperate to maintain a healthy recreational fisheries industry.

7.8.5.9 California Department of Fish and Game

New Bullards Bar Reservoir is part of the CDFG fish-planting program. CDFG regularly plants catchable size rainbow trout monthly from November through May, and enforces State fishing and hunting regulations throughout the Project area.

7.8.6 Other Regionally or Nationally Significant Recreation Areas in the Project Region

Additional recreation areas within the Project Vicinity and important regional and national recreation areas provide a variety of outdoor recreation opportunities. These include the TNF, PNF, Lake Almanor, Lake Oroville, Little Grass Valley Reservoir, Sly Creek Reservoir, Merle Collins Reservoir, USACE's Englebright Reservoir, Jackson Meadows Reservoir, Scotts Flat Reservoir, Rollins Reservoir, Camp Far West Reservoir, and Folsom Lake.

7.8.7 List of Attachments

This section includes 3 attachments:

- Attachment 7.8A - Yuba County Ordinance, Title VIII, Chapter 8.50 - Public Peace and Safety, Regarding Public Use of New Bullards Bar Reservoir
- Attachment 7.8B - YCWA, Detailed Summary of Whitewater Boating Study for the North Yuba River: New Bullards Bar Reservoir to Rices Crossing
- Attachment 7.8C – YCWA Exhibit R Revision, 1993.

Section 7.8

Recreation Resources Attachment

- **Attachment 7.8 A: Yuba County Ordinance 8.50**

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- **Attachment 7.8B: New Bullards Bar Dam Whitewater Study Results**

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Recreation Resources Attachment

- **Attachment 7.8C: Yuba County Water Agency Exhibit R**

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