

APPENDIX 4A

RECREATION RESOURCES

EDAW, INC., INPUT TO SOCIOECONOMIC RESOURCES ANALYSIS

NOVEMBER 23, 2003

Appendix 4A
EDAW, Inc., Input to Socioeconomic Resources Analysis
November 23, 2003

Proposed changes in the Federal Energy Regulatory Commission (FERC) Klamath Hydroelectric Project (Project) boundary will result in an overall geographic loss of recreation opportunities in the Project area (intuitively, reducing the size of the Project area and thereby decreasing the number of recreation areas will ultimately result in an overall reduction in recreation use). However, individual sites within the proposed FERC Project boundary will likely see increases in recreational use. An increase in recreation use at sites within the proposed FERC Project boundary will occur as a result of population increases, activity participation changes, and improvements and enhancements to the developed recreation sites within the Project.

In addition to increases in recreation use in the Project area, the region is expected to experience an overall increase in recreational use. The region is expected to experience an increase in recreational use as a result of population increases and activity participation increases.

In general, existing recreational use in the current Project area is from two user groups: (1) local residents, and (2) transit visitors. For local residents in Siskiyou County, California, and Klamath and Jackson counties, Oregon, the proposed FERC Project boundary change is not anticipated to change recreational use patterns. These visitors will continue to use regional recreation areas that are in proximity to their residences, with or without PacifiCorp-managed developed recreation sites. For transit visitors, the Project area provides a stopover point on the way to other regional attractions and destinations (for example, Crater Lake National Park, the Shakespeare Festival in Ashland, the Volcanic Legacy Scenic Byway). These transit visitors are generally more affected by larger national and regional factors (for example, the economy, security concerns, high gas prices, weather) rather than Project area-specific factors. If regional recreation sites are provided (whether managed by PacifiCorp or not), these transit visitors will continue to stop and use regional recreation sites.

Providing improved and enhanced developed recreation sites within the proposed FERC Project boundary will create some economic benefit in the Project region. Most of the proposed recreation protection, mitigation, and enhancement (PM&E) measures and their associated construction projects would occur during the first 5 to 10 years of the new license becoming final. A few recreation site construction projects would occur later in the term of the new license (for example, a new campground at Long Gulch on Iron Gate reservoir). It is anticipated that all recreation-related construction needs (labor and material) will be met by local construction firms in the vicinity of the Project (assuming there are qualified construction firms in the Project region). On the upper Project (J.C. Boyle reservoir area), construction-related needs would likely be met by a firm in the Klamath Falls area, Oregon, while on the southern Project (State Line take-out to Iron Gate fish hatchery), construction-related needs would likely be met by a firm out of Medford area, Oregon.

The following sections discuss existing and future conditions in the Project area by resource area.

Link River and Keno Reservoir Area

Existing Conditions

Existing Conditions Within the Project Boundary (2002)

PacifiCorp currently operates the East Side and West Side Developments at Link River adjacent to the city of Klamath Falls. Within the Project area is PacifiCorp's Link River Trail, with trailheads at either end. This trail provides opportunities for hiking, jogging, walking, nature observation, bank fishing, and occasionally whitewater boating at the southern end. Some bicycling also occurs, but the trail is currently gated to exclude bikes. The dominant activity is trail-related—walking and jogging. A small amount of fishing occurs. Whitewater boating is rare, except during high flows and at a play wave at the south end. Current (2002) annual recreation use is estimated at 25,300 recreation days (RDs), which is 13 percent of the entire study area, the second highest-used facility in the study area.

Existing Conditions Outside the Project Boundary (2002)

Outside the Project boundary in this resource area is the Oregon Department of Fish and Wildlife (ODFW) Miller Island Boat Launch and the city of Klamath Falls' Veteran's Memorial Park and Boat Launch. Both facilities front onto Lake Ewauna (upper portion of Keno reservoir). Miller Island Boat Launch is located within a wildlife refuge and is accessed via a long and curving road. This ODFW facility is mainly used for launching small powerboats for use in waterfowl hunting and boat fishing. Some waterskiers also use this boat launch. Current (2002) annual recreation use is estimated at 7,350 RDs, which is 3 percent of the entire study area.

The city's Veteran's Memorial Park and Boat Launch has two components. The city park area, which is not on the shoreline, includes an amphitheater, picnic area, and steam train display. The boat launch component features a concrete ramp to launch mainly powerboats used for waterskiing and waterfowl hunting and a new boat house used for launching nonpowered watercraft. Wildlife observation and picnicing also occurs at the boat launch. Current (2002) annual recreation use is estimated at 42,500 RDs, which is 22 percent of the entire study area, the highest-used facility in the study area. On-water use of Lake Ewauna is light, mainly by boaters.

Future Conditions

Future Conditions Within the Proposed FERC Project Boundary (2006-2036)

This entire area would be outside of the proposed FERC Project boundary.

Future Conditions Outside the Proposed FERC Project Boundary (2006-2036)

All recreation sites in this area would be outside of the proposed FERC Project boundary. This would equate to a loss of approximately 78,500 RDs in the proposed new Project area (by 2006). However, this amount of recreational use would not be lost from the region. Most recreational use of the Link River and Keno reservoir area is local. Local residents would likely continue to use this area for recreation.

Keno Reservoir and Reach Area

Existing Conditions

Existing Conditions Within the Project Boundary (2002)

The Keno Development includes Keno dam, a reregulating facility that impounds Keno reservoir. Next to Keno dam is the Keno Recreation Area. This facility has several components, including a campground, day use picnic area, boat launch, group day use area, and an interpretive site. Most visitors to this site are RV or tent campers or are day users who are launching their powerboat for waterskiing or fishing. Many visits are for resting and relaxing. Current (2002) annual recreation use is estimated at 6,050 RDs, which is 3 percent of the entire study area. On-water use of Keno reservoir is light, mainly by boaters who are waterskiing and fishing.

Existing Conditions Outside the Project Boundary (2002)

The Keno reach is outside of the Project boundary. Some whitewater boating occurs below Keno dam at a play wave, although this use is small. Some hiking also occurs in the area, including hiking in the Keno reach below the dam.

Future Conditions

Future Conditions Within the Proposed FERC Project Boundary (2006-2036)

All recreation sites and use within the Keno reservoir and reach area would be outside of the proposed FERC Project boundary.

Future Conditions Outside the Proposed FERC Project Boundary (2006-2036)

All recreation sites in this area would be outside of the proposed FERC Project boundary. This would equate to a loss of approximately 6,300 RDs in the Project area (by 2006). Use on the Keno reach would likely be captured at J.C. Boyle reservoir at a proposed new take-out. Similar to the Link River and Keno reservoir area, the loss of Project area RDs would not equate to a regional loss in recreational use, as the majority of use in this area is from local residents.

J. C. Boyle Reservoir and Boyle Bypass Reach Area

Existing Conditions

Existing Conditions Within the Project Boundary (2002)

Project recreation facilities on J.C. Boyle reservoir include Pioneer Park (East and West units). Pioneer Park includes boat launches (developed and undeveloped), picnic areas, and interpretive signs. Most visitors are resting and relaxing. The boat launch is used by waterskiers, boat anglers, and waterfowl hunters using mainly powerboats. Several undeveloped dispersed campsites and day use sites occur around the reservoir with a concentration of use at and around Spencer Creek to the north. Current (2002) annual recreation use is estimated at 16,880 RDs, which is 8 percent of the entire study area. On-water use of J.C. Boyle reservoir is light to moderate, mainly by boaters who are waterskiing and fishing.

Existing Conditions Outside the Project Boundary (2002)

Located outside of the Project boundary is the Bureau of Land Management's (BLM's) Topsy Campground and Klamath County's Sportsman's Park. Topsy Campground includes a small RV and tent campground, day use picnic area, boat launch, and American Disabilities Act (ADA)-accessible fishing pier. Most visitors to this site are RV camping. Current (2002) annual recreation use is estimated at 5,590 RDs. Sportsman's Park is on PacifiCorp land leased to Klamath County, which in turn has the Sportsman's Association operate the facility. Several ranges are located on this property. Activities here include resting and relaxing, archery, shooting, off-highway vehicle (OHV) riding and competition, and model airplane flying. The property abuts, but is not actually on the reservoir. Current (2002) annual recreation use is estimated at 12,600 RDs.

In the Boyle Bypass reach, which is not within the Project boundary, bank fishing is the main activity and occurs primarily at the upper and lower ends of the reach. Undeveloped fishing access trails occur at either end below the dam and near the J.C. Boyle powerhouse. Whitewater boating in this reach is a rare event and typically only occurs during spill events.

Future Conditions

Future Conditions Within the Proposed FERC Project Boundary (2006-2036)

Pioneer Park, along with several new developed recreation sites (J.C. Boyle Boater Take-Out, Boyle Bluffs, and Boyle Loop Trail), would be within the proposed FERC Project boundary. Use at Pioneer Park would be approximately 17,500 RDs in 2006. The other recreation sites would likely not be completed until 2009. In 2009, it is anticipated that the new recreation sites would receive about 5,300 RDs; however, some of this use would likely be transferred from Pioneer Park, resulting in a minor decrease in use at this site. In total, recreation use in this area is projected to be 20,700 RDs in 2009. In 2019, a campground element would be completed at the new Boyle Bluffs site. This would likely add an additional 1,700 RDs to this area.

Some trail and boater access enhancements in the Boyle bypass reach would likely attract some use to this area (not new use from outside of the Project region though). It is estimated that use in the Boyle bypass reach would be minor (approximately 200 RDs) when these enhancements are completed in 2009.

Future Conditions Outside the Proposed FERC Project Boundary (2006-2036)

Sportsman's Park and Topsy Campground would be outside of the proposed FERC Project boundary. These two sites would likely account for approximately 18,700 RDs in 2006. This use would be lost from the new Project area, but would likely remain in the region.

J. C. Boyle Peaking Reach/Hell's Corner Reach Area

Existing Conditions

Existing Conditions Within the Project Boundary (2002)

No Project recreation facilities exist within this reach. As a result, all use is outside of the Project boundary.

Existing Conditions Outside the Project Boundary (2002)

No Project recreation facilities exist between the J.C. Boyle powerhouse in Oregon and the upper end of Copco reservoir in California. PacifiCorp does own portions of the Frain Ranch property in Oregon; however, it is not within the proposed Project boundary as the land is not essential for operation of the Project. This is a moderately active recreation corridor, with the primary focus being whitewater boating and fishing on Hell's Corner reach. BLM, which owns most of the land in this area, has permitted 23 commercial whitewater boating outfitters to run this reach with an annual estimate of use at 5,250 RDs. In addition, private whitewater boaters, usually in kayaks, also run this reach but in much smaller numbers compared to the commercial outfitters.

Whitewater boating begins at the Upper Klamath River (Spring Island) Boater Access Site, a BLM boater put-in ¼-mile below the J.C. Boyle powerhouse. Boater take-outs are located midway at Frain Ranch, at fishing access sites 1 and 6, and at the State Line Take-Out. PacifiCorp developed six fishing access sites in the lower canyon area in California at the request of the California Department of Fish and Game (CDFG); however, they are not within the Project boundary. Bank fishing occurs near the Spring Island site, Klamath River Campground below Spring Island, Frain Ranch, State Line Take-Out, and the six fishing access sites. Primitive camping occurs in small numbers at BLM's Klamath River Campground, and at BLM and PacifiCorp property at Frain Ranch and State Line Take-Out. Wildlife observation, hiking, and OHV riding occurs throughout the canyon area. Total annual estimated use in this reach is about 12,650 RDs (2002).

Future Conditions

Future Conditions Within the Proposed FERC Project Boundary (2006-2036)

State Line Take-Out, fishing access sites 1-6, and a new site at the "Foundations Area" adjacent to the J.C. Boyle powerhouse would be located within the proposed FERC Project boundary. Recreation use in this area would likely increase with the proposed peaking regime at the J.C. Boyle powerhouse. Given the peaking flow of about 1,500 cubic feet per second (cfs), recreation use at these sites is anticipated to be approximately 13,800 RDs.

Future Conditions Outside the Proposed FERC Project Boundary (2006-2036)

BLM manages several recreation sites within the Hell's Corner reach. All of these sites are considered to be outside the proposed FERC Project boundary. This area would be similarly affected by continuation of peaking operations.

Copco Reservoir and Copco No. 2 Bypass Reach Area

Existing Conditions

Existing Conditions Within the Project Boundary (2002)

PacifiCorp manages two recreation facilities at Copco Reservoir—Mallard Cove and Copco Cove. Annual use at these two facilities is estimated at approximated 8,850 RDs (2002). Both sites have boat launches and picnic tables. In addition, RV camping occurs at Mallard Cove. Boat and bank fishing is the primary activity at these locations. On-water boating use is primarily power boating and use is relatively low. Boat fishing is the primary power boating activity on Copco reservoir, as boat speed is limited on approximately half of the reservoir. Shoreline dispersed use at Copco reservoir occurs at a few locations but is minimal. Currently (2002), this area accounts for approximately 9,000 RDs annually or about 27 percent of Project area recreational use.

There are no developed recreation facilities in the Copco No. 2 reach. Some dispersed recreation occurs along the reach (primarily from anglers), but use is generally very low.

Existing Conditions Outside the Project Boundary (2002)

The majority of the Copco reservoir shoreline above the high water mark is outside of the existing FERC Project boundary. These shoreline areas receive little public recreation use, as most of the shoreline is in private ownership.

Future Conditions

Future Conditions Within the Proposed FERC Project Boundary (2006-2036)

Future conditions within the proposed FERC Project boundary at Copco reservoir would be similar to existing conditions. No expansion of the FERC Project boundary is being proposed in this area. The developed recreation sites would be improved. Improvements to the developed recreation sites, in addition to population and activity participation increases, would likely increase total use of this area to approximately 11,000 RDs by 2036.

No developed recreation facilities are being proposed for the Copco No. 2 reach, although some dispersed use will likely continue.

Future Conditions Outside the Proposed FERC Project Boundary (2006-2036)

Future conditions outside the proposed FERC Project boundary at Copco reservoir would be similar to existing conditions.

Iron Gate Reservoir and Hatchery Area

Existing Conditions

Existing Conditions Within the Project Boundary (2002)

This resource area is located downstream from Copco reservoir at the southern end of the Project area. There are ten developed recreation sites in this resource area, nine of which are managed by

PacifiCorp. The Iron Gate fish hatchery is operated by CDFG, although PacifiCorp funds 80 percent of the hatchery operations. Popular activities in this resource area include powerboat fishing, waterskiing, resting and relaxing, and sightseeing, among others. Currently (2002), this area accounts for approximately 52,000 RDs annually or about 27 percent of Project area recreational use.

Existing Conditions Outside the Project Boundary (2002)

This entire area is within the existing FERC Project boundary.

Future Conditions

Future Conditions Within the Proposed FERC Project Boundary (2006-2036)

Proposed PM&Es call for improvements and enhancements to all of the developed recreation sites in this area. Large-scale changes would include separating day and overnight use, adding several group campsites, and charging fees at recreation sites after improvements are made. All of the major improvements to recreation sites in this area would occur in the first 5 to 10 years of the new license, except for a new campground at Long Gulch. The Long Gulch Campground would likely be constructed and then opened by 2025 (assuming the new license is issued in March 2006). The fee system would be implemented when all developed recreation sites improvement projects are completed (estimated to be by 2010, assuming the new license is issued by March 2006). Recreation use in the area would likely decrease (approximately 15 percent) initially when the fee system is implemented; however, use is anticipated to rebound once visitors have become accustomed to the new fees. Additionally, separating day and overnight use would cause use to be redistributed throughout this area. As a result, some sites would likely see an increase in use from existing levels (e.g., Camp Creek), while others would experience a decrease in use from existing levels (e.g., Jenny Creek, Wanaka Springs).

Future Conditions Outside the Proposed FERC Project Boundary (2006-2036)

This entire area will be within the proposed FERC Project boundary.

Below Iron Gate Hatchery Area

Existing Conditions

Existing Conditions Within the Project Boundary (2002)

The existing FERC Project boundary ends immediately downstream of the Iron Gate fish hatchery. There are no PacifiCorp-managed recreation sites downstream from the hatchery.

Existing Conditions Outside the Project Boundary (2002)

The entire river corridor below the Iron Gate fish hatchery is outside of the FERC Project boundary.

Future Conditions

Future Conditions Within the Proposed FERC Project Boundary (2006-2036)

Continued operation of the Iron Gate fish hatchery is expected to maintain the hatchery's contribution to downstream populations. Without the Iron Gate hatchery, there would likely be a significant loss in harvestable fish. Two other measures would contribute favorably to downstream populations: (1) Heating of steelhead egg incubation water will allow for larger smolt size at release and increased smolt-to-adult survival; (2) An enhanced data collection effort is proposed to improve management and thus the long-term viability of the in-river anadromous fishery. These changes would benefit the downstream in-river sport fishery, American Indian commercial and subsistence fisheries, ocean salmon sport fishery, and commercial fishery.

Future Conditions Outside the Proposed FERC Project Boundary (2006-2036)

Future conditions outside the proposed FERC Project boundary below the Iron Gate fish hatchery would be similar to existing conditions.

Change in Recreation Capacity and Use Levels (2006-2036) in the Project Area
EDAW, Inc. December 12, 2003.

This attachment summarizes additional recreation site capacity resulting from proposed Project protection, mitigation, and enhancement (PM&E) measures.

Link River/Lake Ewauna/Keno Reservoir

No proposed Project PM&E measures occur in this area. It is assumed that recreation providers will continue to operate the developed recreation sites in this area and that there will be no loss in recreation opportunities (and associated recreation use levels).

Additional Recreation Capacity Subtotal 0

J.C. Boyle Reservoir

J.C. Boyle Boater Take-Out	7,500
Pioneer Park	0
Boyle Bluffs	12,500
Additional Recreation Capacity Subtotal	20,000

Upper Klamath River/Hell's Corner Reach

No proposed Project PM&E measures would significantly increase developed recreation site capacity in this area. Flow regime changes resulting from low inflows in dry years may have temporary short-term effects on the number of visitors to this area; however, a long-term increase or decrease in visitation is not anticipated (compared to existing condition projections).

Additional Recreation Capacity Subtotal 0

Copco Reservoir

No proposed Project PM&E measures would significantly increase developed recreation site capacity in this area.

Additional Recreation Capacity Subtotal 0

Iron Gate Reservoir

Camp Creek	8,250
Long Gulch Bluff	25,000
Additional Recreation Capacity Subtotal	33,250

Additional Recreation Capacity Total 53,250

•When all proposed recreation PM&E measures are completed, developed recreation sites would be able to accommodate an additional 53,250 recreation days per year. This represents an approximate increase in overall Project recreation facility capacity of 11 percent from existing levels.

•By 2036, it is estimated that recreation use at these sites (sites with additional capacity) will account for approximately 19,000 recreation days annually in the entire Project area. This corresponds to nearly 7 percent of anticipated recreation use in 2036.

•At Iron Gate reservoir only, the additional capacity will result in an approximate 9 percent increase in projected use by 2036 compared to projections of existing conditions.

•Assuming the percentage of visitor participation in activities in the Project area remains the same, participation will increase for each activity presented in Tables 1 through 7.

Table 1. Recreation capacity and use levels (2006-2036).

Recreation Type	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036
Waterskiing	350	950	960	960	970	970	980	980	980	990	1,130	1,140	1,150	1,160	1,160	1,170	1,810	1,830	1,850	1,870	1,890	1,910	1,930	1,950	1,970	1,990	2,010	2,030
RV Camping	250	670	680	680	690	690	690	700	700	700	800	810	810	820	830	830	1,280	1,300	1,310	1,330	1,340	1,350	1,370	1,380	1,400	1,410	1,420	1,440
Power Boating	110	300	310	310	310	310	310	320	320	320	360	360	370	370	370	380	580	590	590	600	610	610	620	630	630	640	640	650
PWC Use	40	120	120	120	120	120	120	120	120	120	140	140	150	150	150	150	230	230	230	240	240	240	240	250	250	250	250	260
Sightseeing	200	540	550	550	550	560	560	560	560	560	650	650	660	660	660	670	1,030	1,040	1,060	1,070	1,080	1,090	1,100	1,110	1,130	1,130	1,150	1,160
Swimming	110	290	290	290	290	300	300	300	300	300	340	350	350	350	350	360	550	560	560	570	580	580	590	590	600	600	610	620
Target Shooting	90	240	240	250	250	250	250	250	250	250	290	290	290	300	300	300	460	470	470	480	480	490	490	500	500	510	510	520
Wildlife Viewing	200	530	530	530	540	540	540	550	550	550	630	630	640	640	650	650	1,000	1,010	1,030	1,040	1,050	1,060	1,070	1,080	1,090	1,100	1,110	1,130
Hiking	210	570	570	570	570	580	580	580	580	590	670	680	680	690	690	700	1,080	1,090	1,100	1,110	1,120	1,130	1,150	1,160	1,170	1,180	1,190	1,210
Whitewater Boating	100	260	260	260	260	260	270	270	270	270	310	310	310	310	320	320	490	500	500	510	510	520	520	530	540	540	550	550
Fishing	830	2,230	2,240	2,250	2,260	2,280	2,290	2,300	2,300	2,310	2,650	2,670	2,690	2,720	2,730	2,750	4,240	4,280	4,330	4,380	4,430	4,470	4,520	4,570	4,620	4,650	4,700	4,750
Tent Camping	190	520	520	520	530	530	530	540	540	540	620	620	630	630	630	640	990	1,000	1,010	1,020	1,030	1,040	1,050	1,060	1,070	1,080	1,100	1,110
Resting/Relaxing	620	1,680	1,690	1,700	1,710	1,720	1,730	1,740	1,740	1,750	2,000	2,010	2,030	2,050	2,060	2,080	3,200	3,230	3,270	3,300	3,340	3,370	3,410	3,440	3,480	3,510	3,550	3,590
Total	3,300	8,900	8,960	8,990	9,050	9,110	9,150	9,210	9,210	9,250	10,590	10,660	10,760	10,850	10,900	11,000	16,940	17,130	17,310	17,520	17,700	17,860	18,060	18,250	18,450	18,590	18,790	19,020

**Table 2. Projected Annual Increase in Activity Participation.
EDAW, Inc. December 12, 2003**

	Annual Percent Increase
<u>Group 1</u>	1.012
Motor boating/Personal Watercraft Use	
Sightseeing	
Wildlife Viewing	
RV Camping	
Rest/Relaxation	
Hiking	
Biking	
Waterskiing	
<u>Group 2</u>	1.007
Whitewater Boating	
Tent Camping	
Swimming	
Fishing	
Beach Use/Sunning	
Off-Highway Vehicle Use	
<u>Group 3</u>	1.003
Picnicking	
Hunting	
Target Shooting	

*****Assumptions:**

- Annual activity increases are based on California and Oregon Statewide Comprehensive Outdoor Recreation Plans (SCORPs), Cordell activity participation projections (1999), county population projections, and existing study area conditions.
- Assumes steady annual growth over the term of the new license.
- All activities will increase by approximately 1 percent per year. The slight differences in annual increases are generally lost when the projected use numbers are rounded.

Provided by EDAW, Inc. 2003

Table 3. Klamath Project Estimated Recreation Use by Site Within the Current Study Area from 2006 Through 2036.
EDAW, Inc. December 12, 2003

Recreation Site/Resource Area	Primary Activity	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
<u>Link River/Lake Ewauna/Keno Reservoir</u>																			
Link River Trail	Hiking	26,500	26,800	27,100	27,450	27,800	28,150	28,500	28,850	29,200	29,550	29,900	30,250	30,600	30,950	31,300	31,700	32,100	32,500
City of Klamath Falls' Veteran's Memorial Park/Boat Launch	Sightseeing	44,500	45,050	45,600	46,150	46,700	47,250	47,800	48,350	48,950	49,550	50,150	50,750	51,350	51,950	52,550	53,200	53,850	54,500
ODFW's Miller Island Boat Launch	Fishing	7,500	7,550	7,600	7,650	7,700	7,750	7,800	7,850	7,900	7,950	8,000	8,050	8,100	8,150	8,200	8,250	8,300	8,350
Keno Recreation Area	Rest/Relax	6,300	6,400	6,500	6,600	6,700	6,800	6,900	7,000	7,100	7,200	7,300	7,400	7,500	7,600	7,700	7,800	7,900	8,000
	Subtotal	84,800	85,800	86,800	87,850	88,900	89,950	91,000	92,050	93,150	94,250	95,350	96,450	97,550	98,650	99,750	100,950	102,150	103,350
<u>J.C. Boyle Reservoir</u>																			
Sportsman's Park	Target Shooting	12,800	12,850	12,900	12,950	13,000	13,050	13,100	13,150	13,200	13,250	13,300	13,350	13,400	13,450	13,500	13,550	13,600	13,650
Pioneer Park	Rest/Relax	17,500	17,700	17,900	18,100	18,300	18,500	18,700	18,900	19,150	19,400	19,650	19,900	20,150	20,400	20,650	20,900	21,150	21,400
BLM's Topsy Recreation Area	RV Camping	5,900	5,950	6,000	6,050	6,100	6,150	6,200	6,250	6,350	6,450	6,550	6,650	6,750	6,850	6,950	7,050	7,150	7,250
	Subtotal	36,200	36,500	36,800	37,100	37,400	37,700	38,000	38,300	38,700	39,100	39,500	39,900	40,300	40,700	41,100	41,500	41,900	42,300
<u>Upper Klamath River/Hell's Corner Reach</u>																			
BLM's Upper Klamath River (Spring Island) Boater Access	Whitewater Boating	5,400	5,450	5,500	5,550	5,600	5,650	5,700	5,750	5,800	5,850	5,900	5,950	6,000	6,050	6,100	6,150	6,200	6,250
BLM's Klamath River Campground	Whitewater Boating	1,000	1,010	1,020	1,030	1,040	1,050	1,060	1,070	1,080	1,090	1,100	1,110	1,120	1,130	1,140	1,150	1,160	1,170
State Line Take-Out	Fishing	2,800	2,825	2,850	2,875	2,900	2,925	2,950	2,975	3,000	3,025	3,050	3,075	3,100	3,125	3,150	3,175	3,200	3,225
Fishing Access Sites 1 - 6	Fishing	3,700	3,750	3,800	3,850	3,900	3,950	4,000	4,050	4,100	4,150	4,200	4,250	4,300	4,350	4,400	4,450	4,500	4,550
	Subtotal	12,900	13,035	13,170	13,305	13,440	13,575	13,710	13,845	13,980	14,115	14,250	14,385	14,520	14,655	14,790	14,925	15,060	15,195
<u>Copco Reservoir</u>																			
Mallard Cove	Fishing	7,800	7,850	7,900	7,950	8,000	8,050	8,100	8,150	8,200	8,250	8,300	8,350	8,400	8,450	8,500	8,550	8,600	8,650
Copco Cove	Fishing	1,300	1,310	1,320	1,330	1,340	1,350	1,360	1,370	1,380	1,390	1,400	1,410	1,420	1,430	1,440	1,450	1,460	1,470
	Subtotal	9,100	9,160	9,220	9,280	9,340	9,400	9,460	9,520	9,580	9,640	9,700	9,760	9,820	9,880	9,940	10,000	10,060	10,120
<u>Iron Gate Reservoir</u>																			
Fall Creek Trail	Hiking																		
Fall Creek	Sightseeing	3,700	3,750	3,800	3,850	3,900	3,950	4,000	4,050	4,100	4,150	4,200	4,250	4,300	4,350	4,400	4,450	4,500	4,550
Jenny Creek	Rest/Relax	3,900	3,950	4,000	4,050	4,100	4,150	4,200	4,250	4,300	4,350	4,400	4,450	4,500	4,550	4,600	4,650	4,700	4,750
Wanaka Springs	Waterskiing	4,400	4,450	4,500	4,550	4,600	4,650	4,700	4,750	4,800	4,850	4,900	4,950	5,000	5,050	5,100	5,150	5,200	5,250
Camp Creek	Fishing	15,700	15,800	15,900	16,000	16,100	16,200	16,300	16,400	16,500	16,600	16,700	16,800	16,900	17,000	17,100	17,200	17,300	17,400
Juniper Point	Waterskiing	5,000	5,050	5,100	5,150	5,200	5,250	5,300	5,350	5,400	5,450	5,500	5,550	5,600	5,650	5,700	5,750	5,800	5,850
Mirror Cove	Waterskiing	11,700	11,850	12,000	12,150	12,300	12,450	12,600	12,750	12,900	13,050	13,200	13,350	13,500	13,650	13,800	13,950	14,100	14,250
Overlook Point	Waterskiing	2,000	2,025	2,050	2,075	2,100	2,125	2,150	2,175	2,200	2,225	2,250	2,275	2,300	2,325	2,350	2,375	2,400	2,425
Long Gulch	Fishing	5,300	5,350	5,400	5,450	5,500	5,550	5,600	5,650	5,700	5,750	5,800	5,850	5,900	5,950	6,000	6,050	6,100	6,150
Iron Gate Hatchery	Picnicking	2,300	2,310	2,320	2,330	2,340	2,350	2,360	2,370	2,380	2,390	2,400	2,410	2,420	2,430	2,440	2,450	2,460	2,470
	Subtotal	54,000	54,535	55,070	55,605	56,140	56,675	57,210	57,745	58,280	58,815	59,350	59,885	60,420	60,955	61,490	62,025	62,560	63,095
Study Area Dispersed Sites (including Frain Ranch)	Fishing	3,000	3,025	3,050	3,075	3,100	3,125	3,150	3,175	3,200	3,225	3,250	3,275	3,300	3,325	3,350	3,375	3,400	3,425
STUDY AREA TOTAL		200,000	202,055	204,110	206,215	208,320	210,425	212,530	214,635	216,890	219,145	221,400	223,655	225,910	228,165	230,420	232,775	235,130	237,485

*****Assumptions:**

- All projected use figures rounded to the nearest 50 except at State Line take-out (25), Overlook Point (25), Dispersed Sites (25), BLM Klamath River Campground (10), Copco Cove (10), and Iron Gate hatchery (10).
- Assumes steady annual growth over the term of the new license.
- Assumes no change in Project area or recreation facilities.

Provided by EDAW, Inc. 2003

Table 3. Klamath Project Estimated Recreation Use by Site Within the Current Study Area from 2006 Through 2036.
EDAW, Inc. December 12, 2003

2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036
32,900	33,300	33,700	34100	34500	34900	35300	35700	36150	36600	37050	37500	37950
55,150	55,800	56,450	57150	57850	58550	59250	59950	60650	61400	62150	62900	63650
8,400	8,450	8,500	8550	8600	8650	8700	8750	8800	8850	8900	8950	9000
8,100	8,200	8,300	8400	8500	8600	8700	8800	8900	9000	9100	9200	9300
104,550	105,750	106,950	108200	109450	110700	111950	113200	114500	115850	117200	118550	119900
13,700	13,750	13,800	13850	13900	13950	14000	14050	14100	14150	14200	14250	14300
21,650	21,900	22,150	22400	22650	22900	23150	23450	23750	24050	24350	24650	24950
7,350	7,450	7,550	7650	7750	7850	7950	8050	8150	8250	8350	8450	8550
42,700	43,100	43,500	43900	44300	44700	45100	45550	46000	46450	46900	47350	47800
6,300	6,350	6,400	6450	6500	6550	6600	6650	6700	6750	6800	6850	6900
1,180	1,190	1,200	1210	1220	1230	1240	1250	1260	1270	1280	1290	1300
3,250	3,275	3,300	3325	3350	3375	3400	3425	3450	3475	3500	3525	3550
4,600	4,650	4,700	4750	4800	4850	4900	4950	5000	5050	5100	5150	5200
15,330	15,465	15,600	15735	15870	16005	16140	16275	16410	16545	16680	16815	16950
8,700	8,750	8,800	8850	8900	8950	9000	9050	9100	9150	9200	9250	9300
1,480	1,490	1,500	1510	1520	1530	1540	1550	1560	1570	1580	1590	1600
10,180	10,240	10,300	10360	10420	10480	10540	10600	10660	10720	10780	10840	10900
4,600	4,650	4,700	4750	4800	4850	4900	4950	5000	5050	5100	5150	5200
4,800	4,850	4,900	4950	5000	5050	5100	5150	5200	5250	5300	5350	5400
5,300	5,350	5,400	5450	5500	5550	5600	5650	5700	5750	5800	5850	5900
17,500	17,600	17,700	17800	17900	18050	18200	18350	18500	18650	18800	18950	19100
5,900	5,950	6,000	6050	6100	6150	6200	6250	6350	6450	6550	6650	6750
14,400	14,550	14,700	14900	15100	15300	15500	15700	15900	16100	16300	16500	16700
2,450	2,475	2,500	2525	2550	2575	2600	2625	2650	2675	2700	2725	2750
6,200	6,250	6,300	6350	6400	6450	6500	6550	6600	6650	6700	6750	6800
2,480	2,490	2,500	2510	2520	2530	2540	2550	2560	2570	2580	2590	2600
63,630	64,165	64,700	65285	65870	66505	67140	67775	68460	69145	69830	70515	71200
3,450	3,475	3,500	3525	3550	3575	3600	3625	3650	3675	3700	3725	3750
239,840	242,195	244,550	247005	249460	251965	254470	257025	259680	262385	265090	267795	270500

Table 4. Klamath Project Estimated Recreation Use by Site Within the Current Study Area from 2006 Through 2036
EDAW, Inc. December 12, 2003

Recreation Site/Resource Area	Primary Activity	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
<u>Link River/Lake Ewauna/Keno Reservoir</u>																				
Link River Trail	Hiking	26,500	26,800	27,100	27,450	27,800	28,150	28,500	28,850	29,200	29,550	29,900	30,250	30,600	30,950	31,300	31,700	32,100	32,500	32,900
City of Klamath Falls' Veteran's Memorial Park/Boat Launch	Sightseeing	44,500	45,050	45,600	46,150	46,700	47,250	47,800	48,350	48,950	49,550	50,150	50,750	51,350	51,950	52,550	53,200	53,850	54,500	55,150
ODFW's Miller Island Boat Launch	Fishing	7,500	7,550	7,600	7,650	7,700	7,750	7,800	7,850	7,900	7,950	8,000	8,050	8,100	8,150	8,200	8,250	8,300	8,350	8,400
Keno Recreation Area	Rest/Relax	6,300	6,400	6,500	6,600	6,700	6,800	6,900	7,000	7,100	7,200	7,300	7,400	7,500	7,600	7,700	7,800	7,900	8,000	8,100
	Subtotal	84,800	85,800	86,800	87,850	88,900	89,950	91,000	92,050	93,150	94,250	95,350	96,450	97,550	98,650	99,750	100,950	102,150	103,350	104,550
<u>J.C. Boyle Reservoir</u>																				
Sportsman's Park	Target Shooting	12,800	12,850	12,900	12,950	13,000	13,050	13,100	13,150	13,200	13,250	13,300	13,350	13,400	13,450	13,500	13,550	13,600	13,650	13,700
Pioneer Park	Rest/Relax	17,500	17,700	17,900	18,100	18,300	18,500	18,700	18,900	19,150	19,400	19,650	19,900	20,150	20,400	20,650	20,900	21,150	21,400	21,650
BLM's Topsy Recreation Area	RV Camping	5,900	5,950	6,000	6,050	6,100	6,150	6,200	6,250	6,350	6,450	6,550	6,650	6,750	6,850	6,950	7,050	7,150	7,250	7,350
	Subtotal	36,200	36,500	36,800	37,100	37,400	37,700	38,000	38,300	38,700	39,100	39,500	39,900	40,300	40,700	41,100	41,500	41,900	42,300	42,700
<u>Upper Klamath River/Hell's Corner Reach</u>																				
BLM's Upper Klamath River (Spring Island) Boater Access	Whitewater Boating	5,400	5,450	5,500	5,550	5,600	5,650	5,700	5,750	5,800	5,850	5,900	5,950	6,000	6,050	6,100	6,150	6,200	6,250	6,300
BLM's Klamath River Campground	Whitewater Boating	1,000	1,010	1,020	1,030	1,040	1,050	1,060	1,070	1,080	1,090	1,100	1,110	1,120	1,130	1,140	1,150	1,160	1,170	1,180
State Line Take-Out	Fishing	2,800	2,825	2,850	2,875	2,900	2,925	2,950	2,975	3,000	3,025	3,050	3,075	3,100	3,125	3,150	3,175	3,200	3,225	3,250
Fishing Access Sites 1 - 6	Fishing	3,700	3,750	3,800	3,850	3,900	3,950	4,000	4,050	4,100	4,150	4,200	4,250	4,300	4,350	4,400	4,450	4,500	4,550	4,600
	Subtotal	12,900	13,035	13,170	13,305	13,440	13,575	13,710	13,845	13,980	14,115	14,250	14,385	14,520	14,655	14,790	14,925	15,060	15,195	15,330
<u>Copco Reservoir</u>																				
Mallard Cove	Fishing	7,800	7,850	7,900	7,950	8,000	8,050	8,100	8,150	8,200	8,250	8,300	8,350	8,400	8,450	8,500	8,550	8,600	8,650	8,700
Copco Cove	Fishing	1,300	1,310	1,320	1,330	1,340	1,350	1,360	1,370	1,380	1,390	1,400	1,410	1,420	1,430	1,440	1,450	1,460	1,470	1,480
	Subtotal	9,100	9,160	9,220	9,280	9,340	9,400	9,460	9,520	9,580	9,640	9,700	9,760	9,820	9,880	9,940	10,000	10,060	10,120	10,180
<u>Iron Gate Reservoir</u>																				
Fall Creek Trail	Hiking																			
Fall Creek	Sightseeing	3,700	3,750	3,800	3,850	3,900	3,950	4,000	4,050	4,100	4,150	4,200	4,250	4,300	4,350	4,400	4,450	4,500	4,550	4,600
Jenny Creek	Rest/Relax	3,900	3,950	4,000	4,050	4,100	4,150	4,200	4,250	4,300	4,350	4,400	4,450	4,500	4,550	4,600	4,650	4,700	4,750	4,800
Wanaka Springs	Waterskiing	4,400	4,450	4,500	4,550	4,600	4,600	4,600	4,600	4,600	4,600	4,600	4,600	4,600	4,600	4,600	4,600	4,600	4,600	4,600
Camp Creek	Fishing	15,700	15,700	15,700	15,700	15,700	15,700	15,700	15,700	15,700	15,700	15,700	15,700	15,700	15,700	15,700	15,700	15,700	15,700	15,700
Juniper Point	Waterskiing	5,000	5,050	5,100	5,150	5,200	5,250	5,300	5,350	5,400	5,450	5,500	5,550	5,600	5,650	5,700	5,750	5,800	5,850	5,900
Mirror Cove	Waterskiing	11,700	11,850	12,000	12,150	12,300	12,450	12,600	12,750	12,900	13,050	13,200	13,350	13,500	13,650	13,800	13,950	14,100	14,250	14,400
Overlook Point	Waterskiing	2,000	2,025	2,050	2,075	2,100	2,125	2,150	2,175	2,200	2,225	2,250	2,275	2,300	2,325	2,350	2,375	2,400	2,425	2,450
Long Gulch	Fishing	5,300	5,350	5,400	5,450	5,500	5,550	5,600	5,650	5,700	5,750	5,800	5,850	5,900	5,950	6,000	6,050	6,100	6,150	6,200
Iron Gate Hatchery	Picnicking	2,300	2,310	2,320	2,330	2,340	2,350	2,360	2,370	2,380	2,390	2,400	2,410	2,420	2,430	2,440	2,450	2,460	2,470	2,480
	Subtotal	54,000	54,435	54,870	55,305	55,740	56,175	56,610	57,045	57,480	57,915	58,350	58,785	59,220	59,655	60,090	60,525	60,960	61,395	61,830
Study Area Dispersed Sites (including Frain Ranch)	Fishing	3,000	3,025	3,050	3,075	3,100	3,125	3,150	3,175	3,200	3,225	3,250	3,275	3,300	3,325	3,350	3,375	3,400	3,425	3,450
STUDY AREA TOTAL		200,000	201,955	203,910	205,915	207,920	209,875	211,830	213,785	215,890	217,995	220,100	222,205	224,310	226,415	228,520	230,725	232,930	235,135	237,340

*****Assumptions:**

Assumes site use will level off when use approaches 100 percent.

Provided by EDAW, Inc. 2003

Table 4. Klamath Project Estimated Recreation Use by Site Within the Current Study Area from 2006 Through 2036
EDAW, Inc. December 12, 2003

Recreation Site/Resource Area	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036
<u>Link River/Lake Ewauna/Keno Reservoir</u>												
Link River Trail	33,300	33,700	34,100	34,500	34,900	35,300	35,700	36,150	36,600	37,050	37,500	37,950
City of Klamath Falls' Veteran's Memorial Park/Boat Launch	55,800	56,450	57,150	57,850	58,550	59,250	59,950	60,650	61,400	62,150	62,900	63,650
ODFW's Miller Island Boat Launch	8,450	8,500	8,550	8,600	8,650	8,700	8,750	8,800	8,850	8,900	8,950	9,000
Keno Recreation Area	8,200	8,300	8,400	8,500	8,600	8,700	8,800	8,900	9,000	9,100	9,200	9,300
Subtotal	105,750	106,950	108,200	109,450	110,700	111,950	113,200	114,500	115,850	117,200	118,550	119,900
<u>J.C. Boyle Reservoir</u>												
Sportsman's Park	13,750	13,800	13,850	13,900	13,950	14,000	14,050	14,100	14,150	14,200	14,250	14,300
Pioneer Park	21,900	22,150	22,400	22,650	22,900	23,150	23,450	23,750	24,050	24,350	24,650	24,950
BLM's Topsy Recreation Area	7,450	7,550	7,650	7,750	7,850	7,950	8,050	8,150	8,250	8,350	8,450	8,550
Subtotal	43,100	43,500	43,900	44,300	44,700	45,100	45,550	46,000	46,450	46,900	47,350	47,800
<u>Upper Klamath River/Hell's Corner Reach</u>												
BLM's Upper Klamath River (Spring Island) Boater Access	6,350	6,400	6,450	6,500	6,550	6,600	6,650	6,700	6,750	6,800	6,850	6,900
BLM's Klamath River Campground	1,190	1,200	1,210	1,220	1,230	1,240	1,250	1,260	1,270	1,280	1,290	1,300
State Line Take-Out	3,275	3,300	3,325	3,350	3,375	3,400	3,425	3,450	3,475	3,500	3,525	3,550
Fishing Access Sites 1 - 6	4,650	4,700	4,750	4,800	4,850	4,900	4,950	5,000	5,050	5,100	5,150	5,200
Subtotal	15,465	15,600	15,735	15,870	16,005	16,140	16,275	16,410	16,545	16,680	16,815	16,950
<u>Copco Reservoir</u>												
Mallard Cove	8,750	8,800	8,850	8,900	8,950	9,000	9,050	9,100	9,150	9,200	9,250	9,300
Copco Cove	1,490	1,500	1,510	1,520	1,530	1,540	1,550	1,560	1,570	1,580	1,590	1,600
Subtotal	10,240	10,300	10,360	10,420	10,480	10,540	10,600	10,660	10,720	10,780	10,840	10,900
<u>Iron Gate Reservoir</u>												
Fall Creek Trail												
Fall Creek	4,650	4,700	4,750	4,800	4,850	4,900	4,950	5,000	5,050	5,100	5,150	5,200
Jenny Creek	4,850	4,900	4,950	5,000	5,050	5,100	5,150	5,200	5,250	5,300	5,350	5,400
Wanaka Springs	4,600	4,600	4,600	4,600	4,600	4,600	4,600	4,600	4,600	4,600	4,600	4,600
Camp Creek	15,700	15,700	15,700	15,700	15,700	15,700	15,700	15,700	15,700	15,700	15,700	15,700
Juniper Point	5,950	5,950	5,950	5,950	5,950	5,950	5,950	5,950	5,950	5,950	5,950	5,950
Mirror Cove	14,550	14,700	14,900	15,100	15,300	15,500	15,500	15,500	15,500	15,500	15,500	15,500
Overlook Point	2,475	2,500	2,525	2,550	2,575	2,600	2,625	2,650	2,675	2,700	2,725	2,750
Long Gulch	6,250	6,300	6,350	6,400	6,450	6,500	6,550	6,600	6,650	6,700	6,750	6,800
Iron Gate Hatchery	2,490	2,500	2,510	2,520	2,530	2,540	2,550	2,560	2,570	2,580	2,590	2,600
Subtotal	61,515	61,850	62,235	62,620	63,005	63,390	63,575	63,760	63,945	64,130	64,315	64,500
Study Area Dispersed Sites (including Frain Ranch)	3,475	3,500	3,525	3,550	3,575	3,600	3,625	3,650	3,675	3,700	3,725	3,750
STUDY AREA TOTAL	239,545	241,700	243,955	246,210	248,465	250,720	252,825	254,980	257,185	259,390	261,595	263,800

*****Assumptions:**

Assumes site use will level off when use approaches 100 percent.

Provided by EDAW, Inc. 2003

Table 5. Klamath Project Estimated Recreation Use by Site based on Proposed Project PME Measures.

EDAW, Inc. December 12, 2003

Recreation Site/Resource Area	Primary Activity	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
<u>Link River/Lake Ewauna/Keno Reservoir</u>													
Link River Trail	Hiking	26,500	26,800	27,100	27,450	27,800	28,150	28,500	28,850	29,200	29,550	29,900	30,250
City of Klamath Falls' Veteran's Memorial Park/Boat Launch	Sightseeing	44,500	45,050	45,600	46,150	46,700	47,250	47,800	48,350	48,950	49,550	50,150	50,750
ODFW's Miller Island Boat Launch	Fishing	7,500	7,550	7,600	7,650	7,700	7,750	7,800	7,850	7,900	7,950	8,000	8,050
Keno Recreation Area	Rest/Relax	6,300	6,400	6,500	6,600	6,700	6,800	6,900	7,000	7,100	7,200	7,300	7,400
	Subtotal	84,800	85,800	86,800	87,850	88,900	89,950	91,000	92,050	93,150	94,250	95,350	96,450
<u>J.C. Boyle Reservoir</u>													
J.C. Boyle Boater Access	Whitewater Boating				250	252	254	255	257	259	261	263	264
Sportsman's Park	Target Shooting	12,800	12,850	12,900	12,950	13,000	13,050	13,100	13,150	13,200	13,250	13,300	13,350
Pioneer Park	Rest/Relax	17,500	17,700	17,900	15,400	15,600	15,800	16,000	16,200	16,400	16,600	16,800	17,000
Boyle Bluffs	Picnicking/ RV Camping				4,150	4,160	4,170	4,180	4,190	4,200	4,210	4,220	4,230
BLM's Topsy Recreation Area	RV Camping	5,900	5,950	6,000	6,050	6,100	6,150	6,200	6,250	6,350	6,450	6,550	6,650
	Subtotal	36,200	36,500	36,800	38,800	39,112	39,424	39,735	40,047	40,409	40,771	41,133	41,494
<u>Upper Klamath River/Hell's Corner Reach (Scenario 1)</u>													
Boyle Bypass Reach Enhanced Trails and Boater Access	Whitewater Boating				200	201	203	204	206	207	209	210	211
"Foundations Area" Day Use Area and Trail	Whitewater Boating				1,400	1,410	1,420	1,430	1,440	1,450	1,460	1,470	1,480
BLM's Upper Klamath River (Spring Island) Boater Access	Whitewater Boating	5,400	5,450	5,500	4,150	4,200	4,250	4,300	4,350	4,400	4,450	4,500	4,550
BLM's Klamath River Campground	Whitewater Boating	1,000	1,010	1,020	1,030	1,040	1,050	1,060	1,070	1,080	1,090	1,100	1,110
State Line Take-Out	Fishing	2,800	2,825	2,850	2,875	2,900	2,925	2,950	2,975	3,000	3,025	3,050	3,075
Fishing Access Sites 1 - 6	Fishing	3,700	3,750	3,800	3,850	3,900	3,950	4,000	4,050	4,100	4,150	4,200	4,250
	Subtotal	12,900	13,035	13,170	13,505	13,651	13,798	13,944	14,091	14,237	14,384	14,530	14,676
<u>Upper Klamath River/Hell's Corner Reach (Scenario 2)</u>													
Boyle Bypass Reach Enhanced Trails and Boater Access	Whitewater Boating				200	201	203	204	206	207	209	210	211
"Foundations Area" Day Use Area and Trail	Whitewater Boating				1,300	1,310	1,320	1,330	1,340	1,350	1,360	1,370	1,380
BLM's Upper Klamath River (Spring Island) Boater Access	Whitewater Boating	4,600	4,800	5,000	3,900	4,050	4,100	4,150	4,200	4,250	4,300	4,350	4,400
BLM's Klamath River Campground	Whitewater Boating	850	880	920	960	1,000	1,010	1,020	1,030	1,040	1,050	1,060	1,070
State Line Take-Out	Fishing	2,800	2,825	2,850	2,875	2,900	2,925	2,950	2,975	3,000	3,025	3,050	3,075
Fishing Access Sites 1 - 6	Fishing	3,700	3,750	3,800	3,850	3,900	3,950	4,000	4,050	4,100	4,150	4,200	4,250
	Subtotal	11,950	12,255	12,570	13,085	13,361	13,508	13,654	13,801	13,947	14,094	14,240	14,386
<u>Copco Reservoir</u>													
Mallard Cove	Fishing	7,800	7,850	7,900	7,950	8,000	8,050	8,100	8,150	8,200	8,250	8,300	8,350
Copco Cove	Fishing	1,300	1,310	1,320	1,330	1,340	1,350	1,360	1,370	1,380	1,390	1,400	1,410
	Subtotal	9,100	9,160	9,220	9,280	9,340	9,400	9,460	9,520	9,580	9,640	9,700	9,760
<u>Iron Gate Reservoir</u>													
Fall Creek Trail	Hiking				350	300	305	310	315	320	325	330	335
Fall Creek	Sightseeing	3,700	3,750	3,800	3,850	1,500	1,525	1,550	1,575	1,600	1,625	1,650	1,675
Jenny Creek	Rest/Relax	3,900	3,950	4,000	4,050	2,450	2,500	2,550	2,600	2,650	2,700	2,750	2,800
Wanaka Springs	Waterskiing	4,400	4,450	4,500	4,550	1,800	1,825	1,850	1,875	1,900	1,925	1,950	1,975
Camp Creek	Fishing	15,700	15,800	15,900	16,000	30,150	30,350	30,550	30,750	30,950	31,150	31,350	31,550
Juniper Point	Waterskiing	5,000	5,050	5,100	5,150	2,850	2,900	2,950	3,000	3,050	3,100	3,150	3,200
Mirror Cove	Waterskiing	11,700	11,850	12,000	12,150	7,350	7,450	7,550	7,650	7,750	7,850	7,950	8,050
Overlook Point	Waterskiing	2,000	2,025	2,050	2,075	1,775	1,800	1,825	1,850	1,875	1,900	1,925	1,950
Long Gulch	Fishing	5,300	5,350	5,400	5,450	2,100	2,125	2,150	2,175	2,200	2,225	2,250	2,275
Long Gulch Campground	RV Camping												
Iron Gate Hatchery	Picnicking	2,300	2,310	2,320	2,330	2,000	2,010	2,020	2,030	2,040	2,050	2,060	2,070
	Subtotal	54,000	54,535	55,070	55,955	52,275	52,790	53,305	53,820	54,335	54,850	55,365	55,880
Study Area Dispersed Sites	Fishing	3,000	3,025	3,050	2,150	2,170	2,190	2,210	2,230	2,250	2,270	2,290	2,310
STUDY AREA TOTAL	(Scenario 1)	200,000	202,055	204,110	207,540	205,448	207,551	209,655	211,758	213,961	216,164	218,368	220,571
STUDY AREA TOTAL	(Scenario 2)	199,050	201,275	203,510	207,120	205,158	207,261	209,365	211,468	213,671	215,874	218,078	220,281

Table 5. Klamath Project Estimated Recreation Use by Site based on Proposed Project PME Measures.

EDAW, Inc. December 12, 2003

Recreation Site/Resource Area	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
<u>Link River/Lake Ewauna/Keno Reservoir</u>												
Link River Trail	30,600	30,950	31,300	31,700	32,100	32,500	32,900	33,300	33,700	34,100	34,500	34,900
City of Klamath Falls' Veteran's Memorial Park/Boat Launch	51,350	51,950	52,550	53,200	53,850	54,500	55,150	55,800	56,450	57,150	57,850	58,550
ODFW's Miller Island Boat Launch	8,100	8,150	8,200	8,250	8,300	8,350	8,400	8,450	8,500	8,550	8,600	8,650
Keno Recreation Area	7,500	7,600	7,700	7,800	7,900	8,000	8,100	8,200	8,300	8,400	8,500	8,600
Subtotal	97,550	98,650	99,750	100,950	102,150	103,350	104,550	105,750	106,950	108,200	109,450	110,700
<u>J.C. Boyle Reservoir</u>												
J.C. Boyle Boater Access	266	268	270	272	274	276	278	280	281	283	285	287
Sportsman's Park	13,400	13,450	13,500	13,550	13,600	13,650	13,700	13,750	13,800	13,850	13,900	13,950
Pioneer Park	17,200	17,400	17,600	17,800	18,000	18,200	18,400	18,600	18,800	19,050	19,300	19,550
Boyle Bluffs	4,240	5,950	6,000	6,050	6,100	6,150	6,200	6,250	6,350	6,450	6,550	6,650
BLM's Topsy Recreation Area	6,750	5,100	5,150	5,200	5,250	5,300	5,350	5,400	5,450	5,500	5,550	5,600
Subtotal	41,856	42,168	42,520	42,872	43,224	43,576	43,928	44,280	44,681	45,133	45,585	46,037
<u>Upper Klamath River/Hell's Corner Reach (Scenario 1)</u>												
Boyle Bypass Reach Enhanced Trails and Boater Access	213	214	216	217	219	221	222	224	225	227	228	230
"Foundations Area" Day Use Area and Trail	1,490	1,500	1,510	1,520	1,530	1,540	1,550	1,560	1,570	1,580	1,590	1,600
BLM's Upper Klamath River (Spring Island) Boater Access	4,600	4,650	4,700	4,750	4,800	4,850	4,900	4,950	5,000	5,050	5,100	5,150
BLM's Klamath River Campground	1,120	1,130	1,140	1,150	1,160	1,170	1,180	1,190	1,200	1,210	1,220	1,230
State Line Take-Out	3,100	3,125	3,150	3,175	3,200	3,225	3,250	3,275	3,300	3,325	3,350	3,375
Fishing Access Sites 1 - 6	4,300	4,350	4,400	4,450	4,500	4,550	4,600	4,650	4,700	4,750	4,800	4,850
Subtotal	14,823	14,969	15,116	15,262	15,409	15,556	15,702	15,849	15,995	16,142	16,288	16,435
<u>Upper Klamath River/Hell's Corner Reach (Scenario 2)</u>												
Boyle Bypass Reach Enhanced Trails and Boater Access	213	214	216	217	219	221	222	224	225	227	228	230
"Foundations Area" Day Use Area and Trail	1,390	1,400	1,410	1,420	1,430	1,440	1,450	1,460	1,470	1,480	1,490	1,500
BLM's Upper Klamath River (Spring Island) Boater Access	4,450	4,500	4,550	4,600	4,650	4,700	4,750	4,800	4,850	4,900	4,950	5,000
BLM's Klamath River Campground	1,080	1,090	1,100	1,110	1,120	1,130	1,140	1,150	1,160	1,170	1,180	1,190
State Line Take-Out	3,100	3,125	3,150	3,175	3,200	3,225	3,250	3,275	3,300	3,325	3,350	3,375
Fishing Access Sites 1 - 6	4,300	4,350	4,400	4,450	4,500	4,550	4,600	4,650	4,700	4,750	4,800	4,850
Subtotal	14,533	14,679	14,826	14,972	15,119	15,266	15,412	15,559	15,705	15,852	15,998	16,145
<u>Copco Reservoir</u>												
Mallard Cove	8,400	8,450	8,500	8,550	8,600	8,650	8,700	8,750	8,800	8,850	8,900	8,950
Copco Cove	1,420	1,430	1,440	1,450	1,460	1,470	1,480	1,490	1,500	1,510	1,520	1,530
Subtotal	9,820	9,880	9,940	10,000	10,060	10,120	10,180	10,240	10,300	10,360	10,420	10,480
<u>Iron Gate Reservoir</u>												
Fall Creek Trail	340	345	350	355	360	365	370	375	380	385	390	395
Fall Creek	1,700	1,725	1,750	1,775	1,800	1,825	1,850	1,875	1,900	1,925	1,950	1,975
Jenny Creek	2,850	2,900	2,950	3,000	3,050	3,100	3,150	3,200	3,250	3,300	3,350	3,400
Wanaka Springs	2,000	2,025	2,050	2,075	2,100	2,125	2,150	2,175	2,200	2,225	2,250	2,275
Camp Creek	31,750	31,950	32,150	32,400	32,650	32,900	33,150	27,600	27,800	28,000	28,200	28,400
Juniper Point	3,250	3,300	3,350	3,400	3,450	3,500	3,550	3,600	3,650	3,700	3,750	3,800
Mirror Cove	8,150	8,250	8,350	8,450	8,550	8,650	8,750	8,850	8,950	9,050	9,150	9,250
Overlook Point	1,975	2,000	2,025	2,050	2,075	2,100	2,125	2,150	2,175	2,200	2,225	2,250
Long Gulch	2,300	2,325	2,350	2,375	2,400	2,425	2,450	2,475	2,500	2,525	2,550	2,575
Long Gulch Campground								9,300	9,400	9,500	9,600	9,700
Iron Gate Hatchery	2,080	2,090	2,100	2,110	2,120	2,130	2,140	2,150	2,160	2,170	2,180	2,190
Subtotal	56,395	56,910	57,425	57,990	58,555	59,120	59,685	63,750	64,365	64,980	65,595	66,210
Study Area Dispersed Sites	2,330	2,350	2,370	2,390	2,410	2,430	2,450	2,470	2,490	2,510	2,530	2,550
STUDY AREA TOTAL	222,774	224,928	227,121	229,464	231,808	234,151	236,495	242,338	244,782	247,325	249,869	252,412
STUDY AREA TOTAL	222,484	224,638	226,831	229,174	231,518	233,861	236,205	242,048	244,492	247,035	249,579	252,122

Table 5. Klamath Project Estimated Recreation Use by Site based on Proposed Project PME Measures.

EDAW, Inc. December 12, 2003

Recreation Site/Resource Area	2030	2031	2032	2033	2034	2035	2036
<u>Link River/Lake Ewauna/Keno Reservoir</u>							
Link River Trail	35,300	35,700	36,150	36,600	37,050	37,500	37,950
City of Klamath Falls' Veteran's Memorial Park/Boat Launch	59,250	59,950	60,650	61,400	62,150	62,900	63,650
ODFW's Miller Island Boat Launch	8,700	8,750	8,800	8,850	8,900	8,950	9,000
Keno Recreation Area	8,700	8,800	8,900	9,000	9,100	9,200	9,300
Subtotal	111,950	113,200	114,500	115,850	117,200	118,550	119,900
<u>J.C. Boyle Reservoir</u>							
J.C. Boyle Boater Access	289	291	294	296	298	300	302
Sportsman's Park	14,000	14,050	14,100	14,150	14,200	14,250	14,300
Pioneer Park	19,800	20,050	20,300	20,550	20,800	21,050	21,300
Boyle Bluffs	6,750	6,850	6,950	7,050	7,150	7,250	7,350
BLM's Topsy Recreation Area	5,650	5,700	5,750	5,800	5,850	5,900	5,950
Subtotal	46,489	46,941	47,394	47,846	48,298	48,750	49,202
<u>Upper Klamath River/Hell's Corner Reach (Scenario 1)</u>							
Boyle Bypass Reach Enhanced Trails and Boater Access	232	233	235	236	238	240	241
"Foundations Area" Day Use Area and Trail	1,610	1,620	1,630	1,640	1,650	1,660	1,670
BLM's Upper Klamath River (Spring Island) Boater Access	5,200	5,250	5,300	5,350	5,400	5,450	5,500
BLM's Klamath River Campground	1,240	1,250	1,260	1,270	1,280	1,290	1,300
State Line Take-Out	3,400	3,425	3,450	3,475	3,500	3,525	3,550
Fishing Access Sites 1 - 6	4,900	4,950	5,000	5,050	5,100	5,150	5,200
Subtotal	16,582	16,728	16,875	17,021	17,168	17,315	17,461
<u>Upper Klamath River/Hell's Corner Reach (Scenario 2)</u>							
Boyle Bypass Reach Enhanced Trails and Boater Access	232	233	235	236	238	240	241
"Foundations Area" Day Use Area and Trail	1,510	1,520	1,530	1,540	1,550	1,560	1,570
BLM's Upper Klamath River (Spring Island) Boater Access	5,050	5,100	5,150	5,200	5,250	5,300	5,350
BLM's Klamath River Campground	1,200	1,210	1,220	1,230	1,240	1,250	1,260
State Line Take-Out	3,400	3,425	3,450	3,475	3,500	3,525	3,550
Fishing Access Sites 1 - 6	4,900	4,950	5,000	5,050	5,100	5,150	5,200
Subtotal	16,292	16,438	16,585	16,731	16,878	17,025	17,171
<u>Copco Reservoir</u>							
Mallard Cove	9,000	9,050	9,100	9,150	9,200	9,250	9,300
Copco Cove	1,540	1,550	1,560	1,570	1,580	1,590	1,600
Subtotal	10,540	10,600	10,660	10,720	10,780	10,840	10,900
<u>Iron Gate Reservoir</u>							
Fall Creek Trail	400	405	410	415	420	425	430
Fall Creek	2,000	2,025	2,050	2,075	2,100	2,125	2,150
Jenny Creek	3,450	3,500	3,550	3,600	3,650	3,700	3,750
Wanaka Springs	2,300	2,325	2,350	2,375	2,400	2,425	2,450
Camp Creek	28,600	28,800	29,000	29,200	29,400	29,600	29,800
Juniper Point	3,850	3,900	3,950	4,000	4,050	4,100	4,150
Mirror Cove	9,350	9,450	9,550	9,650	9,750	9,850	9,950
Overlook Point	2,275	2,300	2,325	2,350	2,375	2,400	2,425
Long Gulch	2,600	2,625	2,650	2,675	2,700	2,725	2,750
Long Gulch Campground	9,800	9,900	10,000	10,100	10,200	10,300	10,400
Iron Gate Hatchery	2,200	2,210	2,220	2,230	2,240	2,250	2,260
Subtotal	66,825	67,440	68,055	68,670	69,285	69,900	70,515
Study Area Dispersed Sites	2,570	2,590	2,610	2,630	2,650	2,670	2,690
STUDY AREA TOTAL	254,956	257,500	260,093	262,737	265,381	268,024	270,668
STUDY AREA TOTAL	254,666	257,210	259,803	262,447	265,091	267,734	270,378

*****Assumptions:**

J.C. Boyle Reservoir

- The J.C. Boyle Boater Access (upper reservoir) would be completed by Year 4 (2009) of the new license term.
- Day use facilities at Boyle Bluffs would be completed by Year 4 (2009) of the new license. This site would likely not create new use in the area. Rather, some dispersed use (50% of observed J.C. Boyle dispersed use) and some use at other day use facilities (15% of use at Pioneer Park and Topsy Campground) at J.C. Boyle reservoir would be transferred to this site. Camping facilities at Boyle Bluffs would likely be completed 10 years after the day use facilities (2019). Some camping use would likely be transferred from Topsy Campground (approximately 25%) to the new campground at Boyle Bluffs.

Upper Klamath River/Hells' Corner Reach

- The Boyle Bypass Reach Enhanced Trails and Boater Access and the "Foundations Area" Day Use Area and Trail would be completed by Year 4 of the new license. Approximately 25% of use at Spring Island would likely shift to the "Foundations Area."

- Whitewater boater use (currently attributed to the Spring Island Boater Access) would be captured at State Line take-out, Fishing Access Sites 6 and/or 1. It is estimated that 40% of existing whitewater boaters would be captured at State Line, while the remaining 60% would be captured at Fishing Access Sites 6 and/or 1.

- In Scenario 1, peaking flows are assumed to remain similar to current Project operations. In Scenario 2, it is assumed that the reduced peaking flows (below 1,300 cubic feet per second [cfs]) would result in approximately a 15% decrease in existing whitewater boating use.

Copco Reservoir

- No changes, though the existing developed recreation sites would be improved within the first 5 to 10 years of the new license.

Iron Gate Reservoir

- The improvements to the Fall Creek Trail are anticipated to be completed by Year 4 of the new license.

- The new campground at Camp Creek is anticipated to be completed by Year 4 of the new license. Improvements to the other sites and conversion to day use or group sites would occur by Year 5. Based on counts, approximately 55% of existing use at Iron Gate Reservoir recreation sites is overnight use, while the remaining 45% is day use. Approximately 85% of existing overnight use is anticipated to be transferred to Camp Creek Campground, while the remaining 15% would be transferred to the new group sites.

- A fee system would be implemented when all site improvements have been completed. Recreation use is anticipated to decrease by 15% the first year the fee system is implemented (2010), but would rebound in 3 to 5 years.

- The proposed new Long Gulch Campground would be completed in 2025. It is anticipated that approximately 25% of overnight use at Camp Creek Campground would be shifted to Long Gulch Campground (by 2025 it is estimated that 70% of use at Camp Creek will be overnight use). Additionally, the new campground would also attract some new use to the Project area. This additional use is estimated to be equal to approximately 15% of overnight use at Camp Creek.

Provided by EDAW, Inc. 2003

Table 6. Klamath Project Estimated Activity Participation Based on Proposed Project PME Measures.
EDAW, Inc. December 12, 2003

Reserve Area/Primary Activities	Activity Distribution Percentage	Activity Distribution																														
		2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036
Link River/Lake Ewauna/Keno Reservoir																																
Resting/relaxing	24%	20,350	20,600	20,850	21,100	21,350	21,600	21,850	22,100	22,350	22,600	22,850	23,100	23,400	23,700	24,000	24,300	24,600	24,900	25,200	25,500	25,800	26,100	26,400	26,700	27,000	27,300	27,650	28,000	28,350	28,700	29,050
Hiking	15%	12,700	12,850	13,000	13,150	13,300	13,450	13,600	13,750	13,900	14,050	14,200	14,350	14,500	14,650	14,800	14,950	15,100	15,250	15,400	15,550	15,700	15,850	16,000	16,150	16,300	16,450	16,600	16,750	16,900	17,050	17,200
Wildlife viewing	14%	11,850	12,000	12,150	12,300	12,450	12,600	12,750	12,900	13,050	13,200	13,350	13,500	13,650	13,800	13,950	14,100	14,250	14,400	14,550	14,700	14,850	15,000	15,150	15,300	15,450	15,600	15,750	15,900	16,050	16,200	16,350
Sightseeing	12%	10,200	10,300	10,400	10,500	10,600	10,700	10,800	10,900	11,000	11,100	11,200	11,300	11,400	11,500	11,600	11,700	11,800	11,900	12,000	12,100	12,200	12,300	12,400	12,500	12,600	12,700	12,800	12,900	13,000	13,100	13,200
Fishing	12%	10,200	10,250	10,300	10,350	10,400	10,450	10,500	10,550	10,600	10,650	10,700	10,750	10,800	10,850	10,900	11,000	11,100	11,200	11,300	11,400	11,500	11,600	11,700	11,800	11,900	12,000	12,100	12,200	12,300	12,400	12,500
Tent camping	9%	7,650	7,700	7,750	7,800	7,850	7,900	7,950	8,000	8,050	8,100	8,150	8,200	8,250	8,300	8,350	8,400	8,450	8,500	8,550	8,600	8,650	8,700	8,750	8,800	8,850	8,900	8,950	9,000	9,050	9,100	9,150
RV camping	6%	5,100	5,150	5,200	5,250	5,300	5,350	5,400	5,450	5,500	5,550	5,600	5,650	5,700	5,750	5,800	5,850	5,900	5,950	6,000	6,050	6,100	6,150	6,200	6,250	6,300	6,350	6,400	6,450	6,500	6,550	6,600
Waterskiing	5%	4,250	4,300	4,350	4,400	4,450	4,500	4,550	4,600	4,650	4,700	4,750	4,800	4,850	4,900	4,950	5,000	5,050	5,100	5,150	5,200	5,250	5,300	5,350	5,400	5,450	5,500	5,550	5,600	5,650	5,700	5,750
Power boating	3%	2,550	2,600	2,650	2,700	2,750	2,800	2,850	2,900	2,950	3,000	3,050	3,100	3,150	3,200	3,250	3,300	3,350	3,400	3,450	3,500	3,550	3,600	3,650	3,700	3,750	3,800	3,850	3,900	3,950	4,000	4,050
Subtotal		84,850	85,750	86,650	87,550	88,500	89,450	90,400	91,350	92,300	93,250	94,200	95,150	96,200	97,250	98,350	99,450	100,550	101,650	102,750	103,850	105,000	106,150	107,300	108,450	109,650	110,850	112,100	113,350	114,600	115,850	117,100
J.C. Boyle Reservoir																																
Resting/relaxing	25%	9,050	9,150	9,250	9,350	9,450	9,550	9,650	9,750	9,850	9,950	10,050	10,150	10,250	10,350	10,450	10,600	10,750	10,900	11,050	11,200	11,350	11,500	11,650	11,800	11,950	12,100	12,250	12,400	12,550	12,700	12,850
Fishing	18%	6,500	6,550	6,600	6,650	6,700	6,750	6,800	6,850	6,900	6,950	7,000	7,050	7,100	7,150	7,200	7,250	7,300	7,350	7,400	7,450	7,500	7,550	7,600	7,650	7,700	7,750	7,800	7,850	7,900	7,950	8,000
Swimming	18%	6,500	6,550	6,600	6,650	6,700	6,750	6,800	6,850	6,900	6,950	7,000	7,050	7,100	7,150	7,200	7,250	7,300	7,350	7,400	7,450	7,500	7,550	7,600	7,650	7,700	7,750	7,800	7,850	7,900	7,950	8,000
Target Shooting	15%	5,450	5,470	5,490	5,510	5,530	5,550	5,570	5,590	5,610	5,630	5,650	5,670	5,690	5,710	5,730	5,750	5,770	5,790	5,810	5,830	5,850	5,870	5,890	5,910	5,930	5,950	5,970	5,990	6,010	6,030	6,050
RV Camping	14%	5,050	5,100	5,150	5,200	5,250	5,300	5,350	5,400	5,450	5,500	5,550	5,600	5,650	5,700	5,750	5,800	5,850	5,900	5,950	6,000	6,050	6,100	6,150	6,200	6,250	6,300	6,350	6,400	6,450	6,500	6,550
Waterskiing	10%	3,600	3,650	3,700	3,750	3,800	3,850	3,900	3,950	4,000	4,050	4,100	4,150	4,200	4,250	4,300	4,350	4,400	4,450	4,500	4,550	4,600	4,650	4,700	4,750	4,800	4,850	4,900	4,950	5,000	5,050	5,100
Subtotal		36,150	36,470	36,790	37,110	37,430	37,750	38,070	38,390	38,710	39,030	39,350	39,670	39,990	40,310	40,630	41,000	41,370	41,740	42,110	42,480	42,850	43,220	43,590	43,960	44,330	44,700	45,070	45,440	45,810	46,180	46,550
Upper Klamath River/Hell's Corner Reach (Scenario 1)																																
Whitewater Boating	45%	5,800	5,850	5,900	5,950	6,000	6,050	6,100	6,150	6,200	6,250	6,300	6,350	6,400	6,450	6,500	6,550	6,600	6,650	6,700	6,750	6,800	6,850	6,900	6,950	7,000	7,050	7,100	7,150	7,200	7,250	7,300
Fishing	35%	4,500	4,525	4,550	4,575	4,600	4,625	4,650	4,675	4,700	4,725	4,750	4,775	4,800	4,825	4,850	4,875	4,900	4,925	4,950	4,975	5,000	5,025	5,050	5,075	5,100	5,125	5,150	5,175	5,200	5,225	5,250
Tent camping	10%	1,300	1,310	1,320	1,330	1,340	1,350	1,360	1,370	1,380	1,390	1,400	1,410	1,420	1,430	1,440	1,450	1,460	1,470	1,480	1,490	1,500	1,510	1,520	1,530	1,540	1,550	1,560	1,570	1,580	1,590	1,600
Resting/relaxing	10%	1,300	1,320	1,340	1,360	1,380	1,400	1,420	1,440	1,460	1,480	1,500	1,520	1,540	1,560	1,580	1,600	1,620	1,640	1,660	1,680	1,700	1,720	1,740	1,760	1,780	1,800	1,820	1,840	1,860	1,880	1,900
Subtotal		12,900	13,005	13,110	13,215	13,320	13,425	13,530	13,635	13,740	13,845	13,950	14,055	14,160	14,265	14,370	14,475	14,580	14,685	14,790	14,895	15,000	15,105	15,210	15,315	15,420	15,525	15,630	15,735	15,840	15,945	16,050
Upper Klamath River/Hell's Corner Reach (Scenario 2)																																
Whitewater Boating	45%	5,400	5,450	5,500	5,550	5,600	5,650	5,700	5,750	5,800	5,850	5,900	5,950	6,000	6,050	6,100	6,150	6,200	6,250	6,300	6,350	6,400	6,450	6,500	6,550	6,600	6,650	6,700	6,750	6,800	6,850	6,900
Fishing	35%	4,200	4,225	4,250	4,275	4,300	4,325	4,350	4,375	4,400	4,425	4,450	4,475	4,500	4,525	4,550	4,575	4,600	4,625	4,650	4,675	4,700	4,725	4,750	4,775	4,800	4,825	4,850	4,875	4,900	4,925	4,950
Tent camping	10%	1,200	1,210	1,220	1,230	1,240	1,250	1,260	1,270	1,280	1,290	1,300	1,310	1,320	1,330	1,340	1,350	1,360	1,370	1,380	1,390	1,400	1,410	1,420	1,430	1,440	1,450	1,460	1,470	1,480	1,490	1,500
Resting/relaxing	10%	1,200	1,210	1,220	1,230	1,240	1,250	1,260	1,270	1,280	1,290	1,300	1,310	1,320	1,330	1,340	1,350	1,360	1,370	1,380	1,390	1,400	1,410	1,420	1,430	1,440	1,450	1,460	1,470	1,480	1,490	1,500
Subtotal		12,000	12,095	12,190	12,285	12,380	12,475	12,580	12,685	12,790	12,895	13,000	13,105	13,210	13,315	13,420	13,525	13,630	13,735	13,840	13,945	14,050	14,155	14,260	14,365	14,470	14,575	14,680	14,785	14,890	14,995	15,100
Copco Reservoir																																
Fishing	80%	7,300	7,350	7,400	7,450	7,500	7,550	7,600	7,650	7,700	7,750	7,800	7,850	7,900	7,950	8,000	8,050	8,100	8,150	8,200	8,250	8,300	8,350	8,400	8,450	8,500	8,550	8,600	8,650	8,700	8,750	8,800
Sightseeing	10%	900	910	920	930	940	950	960	970	980	990	1,000	1,010	1,020	1,030	1,040	1,050	1,060	1,070	1,080	1,090	1,100	1,110	1,120	1,130	1,140	1,150	1,160	1,170	1,180	1,190	1,200
Resting/relaxing	10%	900	910	920	930	940	950	960	970	980	990	1,000	1,010	1,020	1,030	1,040	1,050	1,060	1,070	1,080	1,090	1,100	1,110	1,120	1,130	1,140	1,150	1,160	1,170	1,180	1,190	1,200
Subtotal		9,100	9,170	9,240	9,310	9,380	9,450	9,520	9,590	9,660	9,730	9,800	9,870	9,940	10,010	10,080	10,150	10,220	10,290	10,360	10,430	10,500	10,570	10,640	10,710	10,780	10,850	10,920	10,990	11,060	11,130	11,200
Iron Gate Reservoir																																
Fishing	36%	19,450	19,600	19,750	19,900	20,050	20,200	20,350	20,500	20,650	20,800	20,950	21,100	21,250	21,400	21,550	21,700	21,850	22,000	22,150	22,300	22,450	22,600	22,750	22,900	23,050	23,200	23,350	23,500	23,650	23,800	23,950
Waterskiing	25%	13,500	13,650	13,800	13,950	14,100	14,250	14,400	14,550	14,700	14,850	15,000	15,150	15,300																		

Table 7. Klamath Project Estimated Recreation Facility Construction Costs and Labor.
EDAW, Inc. December 12, 2003

Resource Area	Total Construction Costs	Labor Costs	Average Number of Employees	Construction Material Costs	O&M Costs	Seasonal Recreation O&M Employees
J.C. Boyle Reservoir	\$1,363,000	\$586,000	8	\$777,000	\$225,000	1
Upper Klamath River/Hell's Corner Reach	\$305,000	\$143,000	4	\$162,000	\$75,000	
Copco Reservoir	\$259,000	\$110,000	3	\$149,000	\$246,000	1
Iron Gate Reservoir	\$8,210,000	\$3,320,000	39	\$4,890,000	\$1,726,000	4
TOTAL	\$10,137,000	\$4,159,000	54	\$5,978,000	\$2,272,000	6

*****Assumptions:**

- All estimates are cumulative over the anticipated term of the new license (estimated to be 30 years). However, many construction-related projects will occur during the first 5 years of the new license. One exception is the construction of the Long Gulch Campground, which is anticipated to be needed approximately 15 to 20 years into the new license. The Long Gulch Campground is estimated to cost \$3,800,000 (approximately \$1,520,000 in labor costs) and to employ about 21 people during a 2-year period (assuming an average annual salary of \$35,000).
- Construction projects at J.C. Boyle reservoir are anticipated to occur during a 2-year period. As such, the Average Number of Employees represents the total number of employees during a 2-year period.
- Construction projects at the Upper Klamath River/Hell's Corner reach are anticipated to occur over a 1-year period. As such, the Average Number of Employees represents the total number of employees during a 1-year period.
- Construction projects at the Copco reservoir are anticipated to occur during a 1-year period. As such, the Average Number of Employees represents the total number of employees during a 1-year period.
- Construction projects at the Iron Gate reservoir are anticipated to occur during a 3-year period (existing site enhancements and improvements) and a 2-year period (proposed new Long Gulch campground). As such, the Average Number of Employees represents the total number of employees during both the 3-year and 2-year periods.
- It is assumed that construction at the upper Project (J.C. Boyle reservoir area) would be completed by a qualified firm out of the Klamath Falls area, OR (Klamath County). No permanent construction worker relocation is anticipated.
- It is assumed that construction at the lower Project (State Line take-out to Iron Gate fish hatchery) would be completed by a qualified firm out of the Medford area, Oregon (Jackson County). No permanent construction worker relocation is anticipated.
- All design, permitting, and compliance costs are included in the Construction Material Costs.
- Operations and maintenance (O&M) costs represent costs that are above and beyond current O&M costs.
- All O&M labor is assumed to be local (Klamath and Jackson counties in Oregon and Siskiyou County in California). All additional O&M labor is assumed to be seasonal (May through September) and in addition to existing O&M staff. Most seasonal O&M would be needed when major construction projects are completed by Year 5 of the new license. One additional seasonal O&M position would be filled when the Long Gulch Campground is completed, approximately 15 to 20 years into the new license.

Provided by EDAW, Inc.