## ATTACHMENT 3: CUMULATIVE EFFECTS TABLES

Potential cumulative effects are analyzed by considering the proposed activities in the context of past, present, and reasonably foreseeable actions. For this project activities are considered in the entire Diamond Lake Fifth Field Watershed and in Lake Creek, Poole Creek, and Calamut Lake Sixth Field Subwatersheds of the Lemolo Lake Fifth Field Watershed. These are the areas where cumulative effects have occurred or may occur. In addition, some activities have an influence that may extend downstream of the project area boundary through the North Umpqua River system as far as Rock Creek. This broad area is referred to as the "cumulative effects analysis area" and all alternatives will be considered in the context of relevant past, present, and reasonable foreseeable activities in this area.

The following past management activities have occurred in the cumulative effects analysis area (Table 1).

Table1. Past Management Activities in the Cumulative Effects Analysis Area.

| Activity | Time Period | Location (5th, 6th Field) | Description and Extent of Activity |
|---|---|---|---|
| Sheep Grazing | 1880s – 1943 | Diamond Lake and Lemolo Lake 5th Field Watersheds in their entirety. | Unregulated grazing occurred prior to 1908. After 1908, the McGowan, Kelsay Valley, and Dog Prairie Allotments allowed for regulated grazing within the analysis area. Associated activities and structures included camps, cattle guards, water systems, drift fences, corrals, loading chutes, and stock driveways. |
| Federal Land Designation | 1893 and 1908 | Diamond Lake and Lemolo Lake 5th Field Watersheds in their entirety. | Cascade Range Forest Reserve designated in 1893, which included the analysis area. The Umpqua National Forest was established in 1908. Road building and access increased as a result of National Forest designation. |
| Telephone Line Installation | 1909 – 1965 | Diamond Lake and Lemolo Lake 5th Field Watersheds in their entirety. | A system of telephone lines was installed connecting Big Camas Ranger Station with the outlying guard stations and lookouts, including Diamond Lake, Mount Bailey, Kelsay Valley, Cinnamon Butte, and Windigo Pass. |
| Fish Stocking, Diamond Lake | 1910 – 1939 | Diamond Lake, Diamond Lake | Kamloops rainbow trout fry stocked. 1 or 2 million per year, 32 million total. |
| | 1940 – 1949 | Diamond Lake, Diamond Lake | Kamloops rainbow trout fry stocked. 2 - 4 million per year, 21.3 million total. No fish stocked in 1949. |
| | 1950 – 1959 | Diamond Lake, Diamond Lake | Kamloops rainbow trout legals and fry stocked. 32 – 49,000 legals stocked per year, 177,000 total. 250,000 – 1.014 million fry stocked per year, 3.094 million total. No fish stocked in 1954. |
| | 1960 – 1969 | Diamond Lake, Diamond Lake | Kamloops rainbow trout fry and mixed fingerlings stocked. 1.063 – 1.175 million fry on select years, 2.238 million total. 400 – 500,000 fingerlings on select years, 3.62 million total. |
| | 1970 – 1979 | Diamond Lake, Diamond Lake | Oak Springs rainbow trout fingerlings stocked. 300 – 450,000 stocked per year, 4.82 million total. |
| | 1980 – 1989 | Diamond Lake, Diamond Lake | Oak Springs rainbow trout fingerlings stocked. 350 – 400,000 stocked per year, 3.9 million total. |

| Activity | Time Period | Location (5th, 6th Field) | Description and Extent of Activity |
|---|---|---|---|
| | 1990 – 1999 | Diamond Lake, Diamond Lake | Oak Springs rainbow trout fingerlings, Cape Cod rainbow trout legals, Williamson rainbow trout fingerlings, and Kamloops rainbow trout trophies stocked. 350 – 475,000 Oak Springs fingerlings stocked per year, 3.85 million total. 5 – 14,000 Cape Cod legals stocked on select years, 64,700 total. 12 – 50,000 Williamson fingerlings stocked on select years, 162,000 total. 5,000 Kamloops trophies stocked, 1999. |
| Fish Stocking, Diamond Lake | 2000 – 2002 | Diamond Lake, Diamond Lake | Oak Springs rainbow trout fingerlings, Cape Cod rainbow trout legals, Kamloops rainbow trout trophies, and North Umpqua Spring Chinook fingerlings and legals stocked. 50 – 60 thousand Oak Springs fingerlings stocked per year, 160,000 total. 26 – 38,000 Cape Cod legals stocked on select years, 95,000 total. 15,000 Kamloops trophies stocked per year, 45,000 total. 40,000 chinook fingerlings and 24,000 chinook legals stocked in 2002. |
| Diamond Lake Fish Hatchery Construction | 1919 - 1949 | Diamond Lake, Diamond Lake | Hatchery building constructed on Lake Creek with egg-taking stations constructed on Short and Silent Creeks. The Lake Creek facility burned and was reconstructed in 1949. |
| USFS Camps | 1920 – 1965 | Diamond Lake, Diamond Lake | Campgrounds were established and in use by 1920. Facilities eventually included developed campsites, pit/vault toilets, and potable water from springs. |
| Diamond Lake Shoreline Road | 1922 | Diamond Lake, Diamond Lake | A road was constructed around the north, west, and south shores of Diamond Lake. The road was completed in 1922 and graveled in 1928. |
| Diamond Lake Improvement Company | 1922 – 1965 | Diamond Lake, Diamond Lake | Special use permit issued to Diamond Lake Improvement Company to build a resort at the North end of Diamond Lake. The improvements consisted of a lodge, a store, and several tents. |
| Permitted Camps | 1923 – 1959 | Diamond Lake, Diamond Lake | Diamond Lake Boy Scout Camp, 1923 – '38. Civilian Conservation Corp Camp, 1933 – '42. Latter Day Saints Camp, permit terminated in 1959. |
| Diamond Lake Recreation Cabins | 1924 – present | Diamond Lake, Diamond Lake | Permits were issued between 1924 – mid-1950s for a total of 102 cabin sites and associated improvements. |
| North Umpqua Road Construction | 1939 | Diamond Lake, Diamond Lake<br>Lemolo Lake, Lake Creek | The original road connecting Roseburg and Diamond Lake was completed in 1939, based on an old Indian trail. The surface was originally dirt and rock. East of Copeland Creek, the North Umpqua Road was located south of the current Highway 138 route. |
| Mechanical and Chemical Control of Tui Chub | 1946 – 1953 | Diamond Lake, Diamond Lake | Seining and spot rotenone treatments of shallow water areas were implemented to reduce the chub population. Control activities were carried out annually and resulted in the removal of millions of tui chub. |

| Activity | Time Period | Location (5th, 6th Field) | Description and Extent of Activity |
|---|---|---|---|
| Lemolo 1 Hydroelectric Project | 1952 – 1955 | Lemolo Lake,<br>Poole Creek | The Lemolo 1 project was a portion of the North Umpqua Hydroelectric Project. Physical project structures included Lemolo Dam, Lemolo Reservoir (454 acres), 16,705 feet of waterways (canals), 7328 feet of penstock, a power plant, and a substation. Associated improvements included maintenance/access roads, transmission/distribution lines, crew camps, and a school. The plant began operation in June 1955. |
| Rotenone Treatment of Diamond Lake | 1953 – 1954 | Diamond Lake,<br>Diamond Lake | Physical improvements constructed in 1953 included a canal (spanning 1000 feet on land and 900 feet into the lake at a depth of eight feet) and a flow control structure. The rotenone treatment occurred in September 1954 and involved 100 tons of powder rotenone and 275 gallons of liquid rotenone. An estimated 32 million chub that totaled 400 tons were killed. |
| Fish Stocking, Lemolo Lake | 1955 – 1972 | Lemolo Lake,<br>Calamut Lake<br>Poole Creek<br>Lake Creek | Brown trout, rainbow trout, kokanee salmon, and brook trout were stocked in Lemolo Lake and its tributaries. All of the above species, with the exception of rainbow trout, established wild populations, although brown trout are the most common species. |
| Timber Harvest | 1950 – 1959 | Lemolo Lake,<br>Lake Creek<br>Poole Creek | A total of 141 acres of regeneration harvest were completed. Associated activities included road building and slash treatment. |
| | 1960 – 1969 | Diamond Lake,<br>Diamond Lake West<br>Lemolo Lake,<br>Lake Creek<br>Poole Creek | A total of 351 acres of regeneration harvest were completed. Associated activities included road building and slash treatment. |
| | 1970 – 1979 | Diamond Lake,<br>Diamond Lake South<br>Diamond Lake West<br>Silent Creek<br>Lemolo Lake,<br>Lake Creek<br>Poole Creek | A total of 862 acres of regeneration harvest were completed. Associated activities included road building and slash treatment. A portion of these sales was for salvage of timber killed by a mountain pine beetle outbreak in the mid-1970s. This outbreak occurred mostly south of Diamond Lake and posed a significant fire hazard to the Diamond Lake area facilities. |
| | 1980 – 1989 | Lemolo Lake,<br>Lake Creek<br>Poole Creek | A total of 518 acres of regeneration harvest were completed. Associated activities included road building and slash treatment. |
| | 1990 – 1999 | Lemolo Lake,<br>Lake Creek<br>Poole Creek | A total of 292 acres of regeneration harvest were completed. Associated activities included road building and slash treatment. |
| Lemolo Lake Area Improvements | 1963 – 1984 | Lemolo Lake,<br>Poole Creek | A Special Use Permit was issued in 1963 for the Lemolo Lake Resort. Initial facilities included a restaurant, store, four cabins, and a marina, but more cabins, a gas station, and an RV park were added over the years. Poole Creek Campground was issued a water right in 1963 and 40 sites with associated facilities existed. Major reconstruction began in 1982, which included paving, vault toilets, a new well, hydrants, waterlines, a boat launch, and a group campsite. Reconstruction efforts ended in 1984. |
| Highway 138 Improvements | 1964 | Diamond Lake,<br>Diamond Lake East<br>Diamond Lake South | Highway 138 was completely paved from Roseburg to Highway 97. |

| Activity | Time Period | Location (5th, 6th Field) | Description and Extent of Activity |
|---|---|---|---|
| | | Lemolo Lake,<br>Lake Creek | |
| Diamond Lake RV Park | 1965 – present | Diamond Lake,<br>Diamond Lake | A special use permit was issued by the USFS to create a privately operated RV park near the southwest corner of Diamond Lake. |
| Pesticide Use for Mosquito Abatement | Mid-1960s – 1982 | Diamond Lake 5th Field in its entirety | Douglas County officials, permittees, and later the USFS used malathion and MLO-FLIT for mosquito abatement in the Diamond Lake area. Chemicals were applied to South Shore Marsh and to areas around the lakeshore. |
| Diamond Lake Area Improvements | 1968 – 1972 | Diamond Lake,<br>Diamond Lake East<br>Diamond Lake South<br>Diamond Lake West<br>Silent Creek<br>Lemolo Lake,<br>Lake Creek | Major water and sewer facilities were constructed to reduce water quality impacts to Diamond Lake. Improvements included: deep wells and storage for potable water supply, 13 miles of water lines, flush restrooms and fire hydrants, 11 miles of underground electrical lines, sewage pump stations and treatment lagoons, and fish cleaning and trailer dump stations. Diamond Lake Resort and RV Park connected to the sewage treatment system at this time also. Diamond Lake Resort also began full year operation in 1968, increasing winter recreation opportunities in the area. |
| Water Rights Issued | 1970s | Diamond Lake,<br>Diamond Lake | Water rights were issued to Diamond Lake Resort, Diamond Lake RV Park, and the US Forest Service of not more than 0.30 cfs for domestic use, emergency use, and use in the campgrounds. Oregon Dept. of Fish and Wildlife was issued a right to hold up to 5800 acre-feet of water in Diamond Lake to mitigate the effects of the Rock Creek Hatchery diversions. |
| Sediment Coring | 1972 and 1996 | Diamond Lake,<br>Diamond Lake | Sediment coring was done in Diamond Lake to assess water quality changes over time. |
| Highway 138 Reconstruction | 1977 – 1978 | Diamond Lake,<br>Diamond Lake East<br>Diamond Lake South<br>Lemolo Lake,<br>Lake Creek | A bypass was constructed so that traffic on Hwy 138 would not be congested due to recreational activities at Diamond Lake. The result of the construction effort is present day Highway 138. Pit Lake #1, near Lake Creek, was excavated to provide rock for this project. The "pit" eventually filled with water and was stocked by ODF&W with 200 rainbow trout fingerlings in 1979. Stocking levels increased and continued over time. The related Pit Lake #2 was excavated in 1982. |
| Herbicide Use for Road Maintenance Purposes | 1980 – 1983 | Diamond Lake,<br>Diamond Lake East<br>Diamond Lake South | Herbicides were used by Douglas County officials along Highway 138 to clear vegetation from road shoulders. Chemicals used included Cimizine, 2, 4 Dichlorophenol, and Trichlopyr. |
| Snowcat Skiing | 1981 – present | Diamond Lake,<br>Diamond Lake West<br>Silent Creek | A snowcat skiing operation was created to offer expert skiers the finest backcountry skiing experience in the Northwest. |

| Activity | Time Period | Location (5th, 6th Field) | Description and Extent of Activity |
|---|---|---|---|
| Herbicide Use for Silvicultural Purposes | 1982 | Lemolo Lake,<br>Lake Creek | Herbicides were used by the USFS to reduce competition between conifers and early successional plants. Hand application of glyphosate on seven acres in Cinnamon Butte Timber Sale Unit #1. |
| Diamond Lake Area Improvements | Mid-1980s – early-1990s | Diamond Lake 5th Field in it's entirety | Over three million dollars of improvements were made to meet demands, afford resource protection, and upgrade campgrounds and facilities. Improvements included: paving all campground roads, paving and improving boat ramps and South Shore Picnic Area, construction of the paved Dellenback Bike Trail, adding two shower facilities and an amphitheater, improving handicapped accessibility, removing some lakeshore campsites, reducing the total amount of roads, and adding barriers to keep vehicles in designated areas. Diamond Lake Resort also increased the size of its facility at this time by adding more cabins and expanding the main lodge. |
| Diamond Lake Paving Project (Phase I) | 1995 | Diamond Lake,<br>Diamond Lake South<br>Diamond Lake West<br>Silent Creek | The Diamond Lake Loop Road was widened and paved all the way around the Lake. |
| Lemolo Fuels Reduction Project | 1998 – 2002 | Lemolo Lake,<br>Calamut Lake<br>Lake Creek<br>Poole Creek | A fuels reduction project was completed by the Diamond Lake RD Fire Staff. A total of 1,432 acres were treated on Bunker Hill and along roads #2610, 2614, 2612, and 60. |
| Diamond Lake Fuels Reduction Project (Phase I) | 1998 – 2002 | Diamond Lake,<br>Diamond Lake | A fuels reduction project was completed by the Diamond Lake RD Fire Staff. A total of 876 acres were treated in the vicinity of Diamond Lake, mostly focusing around the campgrounds, the Lodge, the RV Park, and Summer Homes. |
| Mechanical Removal of Tui Chub | 2000 | Diamond Lake,<br>Diamond Lake | A commercial herring seiner was contracted to remove tui chub from Diamond Lake for four days. A total of 40,000 chub (1,200 pounds) were removed from the lake and destroyed. Carcasses were buried off-site. The cost of the project was approximately $25,000. |
| Lake Use Restrictions | 2001 – 2002 | Diamond Lake,<br>Diamond Lake | Various restriction levels were imposed due to particularly large blooms of Anabaena phytoplankton. Restrictions ranged from posting information to no boating or water contact. |

There are multiple ongoing activities that contribute to cumulative effects for the Diamond Lake Restoration project. Table 2 displays relevant present activities within the cumulative effects analysis area.

Table 2. Present Management Activities in the Cumulative Effects Analysis Area.

| Activity | Location (5th, 6th Field) | Description and Extent of Activity |
|---|---|---|
| Diamond Lake Fuels Reduction Project | Diamond Lake,<br>Diamond Lake | An ongoing fuels reduction project is being completed by the Diamond Lake RD Fire Staff. The project will total 876 acres of treatment in the vicinity of Diamond Lake, mostly focusing around the campgrounds, the Lodge, the RV Park, and Summer Homes. |
| Diamond Lake Paving Project (Phase II) | Diamond Lake,<br>Diamond Lake South<br>Silent Creek<br>Lemolo Lake,<br>Lake Creek | A paving overlay is planned for the south end of the Diamond Lake Loop Road and at the Lake Creek crossing. |
| Fire Camp Improvements | Diamond Lake,<br>Diamond Lake South | Improvements were made to the Broken Arrow Campground Overflow Area to provide a site for expanded fire camps. Improvements included rocking existing roads, spreading woodchips on high use areas, and clearing areas for parking. The fire camp area was used for the Kelsay Fire in 2003. |
| Fishery Monitoring | Diamond Lake,<br>Diamond Lake<br>Lemolo Lake,<br>Lake Creek | ODF&W is monitoring the Diamond Lake fishery in several ways: trap netting on Diamond Lake, creel surveys at Diamond Lake, a screw trap at the outlet of Diamond Lake, and a Passive Integrated Transponder (PIT) tagging system to monitor the migration of spring chinook salmon through Lake Creek. |
| Fish Stocking, Diamond Lake | Diamond Lake,<br>Diamond Lake | The "Experimental Fish Stocking Plan" was developed by ODF&W and is being implemented. It involves stocking 60,000 spring Chinook, 24,000 Eagle Lake rainbow trout, 27,000 Fishwich rainbow trout, 15,000 Kamloops rainbow trout, and 50,000 Oak Springs rainbow trout per year. |
| Hazard Tree Removal | Diamond Lake and Lemolo Lake 5th Field Watersheds in their entirety | A Title II (PAYCO) funded project is being implemented in Fall, 2003. This project will remove approximately 2,000 trees in the Diamond Lake area. Hazard trees will continue to be removed from areas of high recreational use and when localized events (blowdown, bugkill, fire, etc.) require tree removal for safety and/or structure protection purposes. |
| Herbicide Use for Noxious Weeds | Diamond Lake,<br>Diamond Lake East<br>Diamond Lake South<br>Lemolo Lake,<br>Lake Creek<br>Poole Creek | The herbicide Pickloram is being used by the Oregon Department of Agriculture along roadsides to control spotted and diffuse knapweed populations. Pickloram is spot-sprayed on individual plants or groups of plants. |
| Hydrologic Monitoring of Diamond Lake | Diamond Lake,<br>Diamond Lake | Various monitoring activities include: primary productivity (1x/month), nutrients, chemical profile, algae, and zooplankton (3x/month), secchi disk (daily), secchi disk and chemical profile (weekly), fish netting (intermittently), algae and toxins (as needed), temperature and light intensity profile (continuous), aeration test (as needed), and gas sampling (as needed). |
| Hydrologic Monitoring of Groundwater | Diamond Lake,<br>Diamond Lake East<br>Diamond Lake South | Groundwater monitoring is being assessed at 18 sites on a weekly basis. Monitoring includes drilling to the water table then documenting stage, temperature, and major ions and |

| Activity | Location (5th, 6th Field) | Description and Extent of Activity |
|---|---|---|
| | Diamond Lake West | nutrients. |
| Hydrologic Monitoring of Lake Creek | Lemolo Lake,<br>Lake Creek | Lake stage, temperature, and discharge are monitored continuously. |
| Hydrologic Monitoring of Silent and Short Creeks | Diamond Lake,<br>Diamond Lake | Nutrient load, field chemistry, major ions, and discharge are monitored three times per month. |
| Lake Use Restrictions | Diamond Lake,<br>Diamond Lake | Various restriction levels were imposed due to particularly large blooms of Anabaena phytoplankton. Restrictions ranged from posting information to no water contact. |
| Lemolo Lake Fuels Reduction Project | Lemolo Lake,<br>Calamut Lake<br>Lake Creek<br>Poole Creek | An ongoing fuels reduction project is being completed by the Diamond Lake RD Fire Staff. The project will total 1,432 acres of treatment on Bunker Hill and along roads #2610, 2614, 2612, and 60. |
| Maintenance Activities | Diamond Lake and Lemolo Lake 5th Field Watersheds in their entirety | Maintenance activities are ongoing. Maintenance is required for trails, roads, culverts, buildings, water and sewer systems, campground facilities, and signs. |
| PacifiCorp Operations | Lemolo Lake,<br>Poole Creek | Lemolo 1 project is a portion of the North Umpqua Hydroelectric Project. Physical project structures include Lemolo Dam, Lemolo Reservoir (454 acres), 16,705 feet of waterways (canals), 7328 feet of penstock, a power plant, and a substation. Associated improvements include maintenance/access roads and transmission/distribution lines. |
| Recreational Use | Diamond Lake and Lemolo Lake 5th Field Watersheds in their entirety | Recreational use in the area is down from historic levels, but is the highest on the Umpqua National Forest. USFS campgrounds, Diamond Lake Resort, Diamond Lake RV Park, and the Summer Homes have a total capacity of 780 available units. The most common recreational activities include sightseeing, hiking, camping, fishing, bicycling, boating, swimming, hunting, backcountry skiing, and snowmobiling. |
| Water Rights | Diamond Lake,<br>Diamond Lake<br>Lemolo Lake,<br>Lake Creek | Water rights issued in the past are being utilized. Water rights were issued to Diamond Lake Resort, Diamond Lake RV Park, and the US Forest Service of not more than 0.30 cfs for domestic use, emergency use, and use in the campgrounds. Oregon Dept. of Fish and Wildlife was issued a right to hold up to 5800 acre-feet of water in Diamond Lake to mitigate the effects of the Rock Creek Hatchery diversions. The Oregon Department of Transportation continues to utilize water from Lake Creek, not to exceed 0.01 cfs, for shop uses and sanitary facilities. |

Reasonably foreseeable actions in these areas can also contribute to cumulative effects (Table 3). No private land is located in the Diamond Lake or Lemolo Lake Watersheds. For the Umpqua National Forest, the following activities are likely to occur over the next five years.

Table 3. Reasonably Foreseeable Management Activities in the Cumulative Effects Analysis Area.

| Activity | Time Period | Location (5th, 6th Field) | Description and Extent of Activity |
|---|---|---|---|
| Boat Ramp Improvements | 2004 | Diamond Lake,<br>Diamond Lake | Boat ramp improvements for the South Shore Boat Ramp are scheduled to occur in 2004. Improvements will involve adding fill to the shoreline to access deeper water for the ramp. The project is funded but does not yet have a signed decision. |
| Campground Improvements | 2004 – 2009 | Diamond Lake and Lemolo Lake 5th Field Watersheds in their entirety | Campground improvements will be made as funding from PAYCO, Fee Demo, PacifiCorp, and other sources becomes available. The area occupied by the current facilities will not increase as a result of improvements. |
| Diamond Drive | 2005 – 2009 | Lemolo Lake,<br>Calamut Lake<br>Lake Creek<br>Poole Creek | The project will involve a paving overlay on the 2610 and 2614 roads. There is currently no signed decision for this project. |
| Diamond Lake Fuels Reduction Project (Phase II) | 2004 – 2007 | Diamond Lake,<br>Diamond Lake | Approximately 500 acres are planned to be treated for hazardous fuels. Treatment will likely involve mechanical thinning, chipping, and handpiling. Project areas are to include stands north of the Hilltop Shop and south and west of Broken Arrow Campground. |
| Diamond Lake Viewpoint | 2005 | Diamond Lake,<br>Diamond Lake East | A Scenic Byway Enhancement Project is planned to allow visitors a place to enjoy the scenery and rest, picnic, etc. The Environmental Assessment has been signed and the project is funded. |
| Fire Camp | 2004 – 2009 | Diamond Lake,<br>Diamond Lake South | The recently improved South Diamond Firecamp will be used if large fires occur in the area and extensive suppression efforts are applied. |
| Fishery Monitoring | 2004 – 2006 | Diamond Lake,<br>Diamond Lake<br>Lemolo Lake,<br>Lake Creek | ODF&W will monitor the Diamond Lake fishery in several ways: trap netting on Diamond Lake, creel surveys at Diamond Lake, a screw trap at the outlet of Diamond Lake, and a Passive Integrated Transponder (PIT) tagging system to monitor the migration of spring chinook salmon through Lake Creek. |
| Fish Stocking, Diamond Lake | 2004 – 2006 | Diamond Lake,<br>Diamond Lake | Fish stocking activities are largely dependant on the outcome of the Diamond Lake Restoration Project. The current plan involves stocking 60,000 spring Chinook, 24,000 Eagle Lake rainbow trout, 27,000 Fishwich rainbow trout, 15,000 Kamloops rainbow trout, and 50,000 Oak Springs rainbow trout per year. |

| Activity | Time Period | Location (5th, 6th Field) | Description and Extent of Activity |
|---|---|---|---|
| Fish Stocking, Lemolo Lake | 2004 – 2006 | Lemolo Lake,<br>Calamut Lake<br>Lake Creek<br>Poole Creek | Fish stocking will continue with rainbow trout hatchery catchables, as needed, to provide a recreational fishery during the mid-summer months when brown trout are hard to catch. |
| Hazard Tree Removal | 2004 – 2009 | Diamond Lake and Lemolo Lake 5th Field Watersheds in their entirety | Hazard trees will continue to be removed in the future from areas of high recreational use and when localized events (blowdown, bugkill, fire, etc.) require tree removal for safety and/or structure protection purposes. |
| Herbicide Use for Noxious Weeds | 2004 – 2009 | Diamond Lake,<br>Diamond Lake East<br>Diamond Lake South<br>Lemolo Lake,<br>Lake Creek<br>Poole Creek | Herbicides will continue to be used by the Oregon Department of Agriculture along roadsides to control spotted and diffuse knapweed populations. The chemical used in the past has been Pickloram and has been spot-sprayed on individual plants or groups of plants. |
| Hydrologic Monitoring of Diamond Lake | 2004 - 2005 | Diamond Lake,<br>Diamond Lake | Various monitoring activities include: primary productivity (1x/month), nutrients, chemical profile, algae, and zooplankton (3x/month), secchi disk (daily), secchi disk and chemical profile (weekly), fish netting (intermittently), algae and toxins (as needed), temperature and light intensity profile (continuous), aeration test (as needed), and gas sampling (as needed). |
| Hydrologic Monitoring of Groundwater | 2004 | Diamond Lake,<br>Diamond Lake West<br>Silent Creek<br>Lemolo Lake,<br>Lake Creek | Groundwater characteristics will be monitored at 18 sites, on a weekly basis. Monitoring includes stage, temperature, and major ions and nutrients. |
| Hydrologic Monitoring of Lake Creek | 2004 – 2009 | Lemolo Lake,<br>Lake Creek | Lake stage, temperature, and discharge will be monitored continuously. |
| Hydrologic Monitoring of Silent and Short Creeks | 2004 – 2005 | Diamond Lake,<br>Diamond Lake | Nutrient load, field chemistry, major ions, and discharge will be monitored three times per month. |
| Lake Closures | 2004 – 2009 | Diamond Lake,<br>Diamond Lake | Lake use restrictions will continue to be implemented if conditions warrant potential safety concerns. |
| Lemolo Watershed Project Activities | 2004 – 2009 | Lemolo Lake,<br>Calamut Lake<br>Lake Creek<br>Poole Creek | The Lemolo Watershed Projects involve several timber sales and associated road building and restoration. The proposed action would harvest timber on 1617 acres, construct or reconstruct 49.1 miles of road, decommission 10.7 miles of road, build 3.5 miles of temporary road, subsoil 232 acres, and treat fuels on 282 acres. In addition to the proposed action, a wide range of alternatives exists. An environmental impact statement is currently being prepared for these projects. Work is scheduled to begin in 2004 or 2005. |
| Maintenance Activities | 2004 – 2009 | Diamond Lake and Lemolo Lake 5th Field Watersheds in their entirety | Maintenance activities will continue at current levels. Maintenance activities include trails, roads, culverts, buildings, water and sewer systems, campground |

| Activity | Time Period | Location (5th, 6th Field) | Description and Extent of Activity |
|---|---|---|---|
| | | | facilities, and signs. |
| PacifiCorp Operations | 2004 – 2009 | Lemolo Lake,<br>Poole Creek | Lemolo 1 project is a portion of the North Umpqua Hydroelectric Project. Physical project structures include Lemolo Dam, Lemolo Reservoir (454 acres), 16,705 feet of waterways (canals), 7328 feet of penstock, a power plant, and a substation. Associated improvements include maintenance/access roads and transmission/distribution lines. |
| Recreational Use | 2004 – 2009 | Diamond Lake and Lemolo Lake 5th Field Watersheds in their entirety | Recreational use in the area is likely to continue at or above current levels, which is the highest on the Umpqua National Forest. USFS campgrounds, Diamond Lake Resort, Diamond Lake RV Park, and the Summer Homes have a total capacity of 780 available units. The most common recreational activities include sightseeing, hiking, camping, fishing, bicycling, boating, swimming, hunting, backcountry skiing, and snowmobiling. |
| Water Rights | 2004 – 2009 | Diamond Lake,<br>Diamond Lake<br>Lemolo Lake,<br>Lake Creek | Water rights issued in the past will continue to be utilized. Water rights were issued to Diamond Lake Resort, Diamond Lake RV Park, and the US Forest Service of not more than 0.30 cfs for domestic use, emergency use, and use in the campgrounds. Oregon Dept. of Fish and Wildlife was issued a right to hold up to 5800 acre-feet of water in Diamond Lake to mitigate the effects of the Rock Creek Hatchery diversions. The Oregon Department of Transportation will continue to utilize water from Lake Creek, not to exceed 0.01 cfs, for shop uses and sanitary facilities. |