

## CHAPTER 5. IMPLEMENTATION

### Key Points

- Implementation actions are the steps and measures that need to be taken in order to meet the TMDLs, achieve sediment and temperature related water quality objectives, and protect the beneficial uses of water in the Scott River watershed.
- The implementation actions are designed to encourage and build upon on-going, proactive restoration and enhancement efforts, comply with the State Water Board's Nonpoint Source Policy, and comply with the Regional Water Board's Sediment TMDL Implementation Policy.
- The implementation actions address:
  - sediment waste discharges;
  - roads at the private, county, and state levels;
  - grading;
  - dredge mining;
  - water temperature and vegetation;
  - water use;
  - flood control and bank stabilization;
  - timber harvest;
  - activities on U.S. Forest Service land;
  - activities on U.S. Bureau of Land Management land;
  - grazing; and
  - cooperation with Siskiyou Resource Conservation District, Scott River Watershed Council, Natural Resources Conservation District, and California Department of Fish and Game.
- The implementation actions rely entirely upon existing authorities. No new authorities are proposed.
- The Regional Water Board shall take appropriate permitting and enforcement actions should any of the implementation actions fail to be implemented or should the implementation actions prove to be inadequate.

The primary goal and purpose of the Scott River TMDL Action Plan is to meet the TMDLs, achieve the sediment and temperature related water quality objectives, and protect the beneficial uses of water in the Scott River watershed. The following chapter describes the steps necessary to ensure that this goal will be achieved.

The first section of this chapter describes specific implementation actions. These actions apply to individual landowners and responsible parties, as well as agencies on the local, state, and federal levels. Organization is by topic or source, and by responsible party where that party addresses multiple topics or sources. This organization mirrors that of the proposed Basin Plan amendment language and is designed to make it easier for a stakeholder to find the implementation actions that apply to the stakeholder's activities. It is important to note that more than one section may apply.

The second section of this chapter describes the permitting and enforcement actions that the Regional Water Board may take should any of the implementation actions fail to be implemented by the responsible party.

The third section of this chapter describes how the TMDL Action Plan is in compliance with the *State Policy for the Implementation and Enforcement of the Nonpoint Source Pollution Control Program*.

## **5.1 IMPLEMENTATION ACTIONS**

### **5.1.1 Introduction to Implementation Actions**

As mentioned in Section 1.4 of the Introduction Chapter, many individuals, groups, and agencies have been working to restore and enhance fish habitat and water quality in the Scott River watershed. Regional Water Board staff recognize that the proactive efforts of these stakeholders have improved water quality conditions. Staff also recognize that on-the-ground implementation of the Scott River TMDL Action Plan and continued water quality improvement will occur much faster and easier if stakeholders continue their efforts. Therefore, many of the implementation actions described in this section are designed to encourage the continued implementation of on-going watershed restoration and enhancement efforts. For example, the Regional Water Board:

- Encourages parties to address high water temperatures by protecting and restoring riparian vegetation. The Siskiyou Resource Conservation District (SRCD), the Scott River Watershed Council (SRWC), industrial timberland owners, the U.S. Forest Service (USFS), and other proactive stakeholders have already undertaken such actions.
- Encourages water users to develop and implement water conservation practices. The SRCD, SRWC, the California Department of Water Resources, and other proactive stakeholders have already undertaken such actions.
- Encourages parties to address sediment waste discharges from roads and other sources. The SRCD, the SRWC, the French Creek Watershed Advisory Group (WAG), industrial timberland owners, the Five Counties Salmon Conservation Program, the USFWS, and the USFS have already undertaken such actions.

- Suggests the County of Siskiyou use the Five County Salmonid Conservation Program as part of their program for addressing sediment waste discharges from county roads.
- Encourages parties to address sediment waste discharges and elevated water temperatures caused by grazing activities. The SRCD, the SRWC, the USFS, and other proactive stakeholders have already undertaken such actions.
- Will work cooperatively with the National Resources Conservation Service (NRCS), the SRCD, and the SRWC to help provide technical support and information.
- Encourages the SRWC to continue to implement the Strategic Action Plan.
- Will work cooperatively with the CDFG to implement applicable recommendations of the Coho Recovery Strategy.
- Will work cooperatively with the USFWS, USFS and the U.S. Bureau of Land Management (BLM) to build upon the actions these agencies have already taken to fully address sediment waste discharges and elevated water temperatures.

Encouragement may take several forms, including efforts by Regional Water Board staff to work with stakeholders to facilitate the planning and implementation of restoration and enhancement projects, staff providing technical assistance for landowners and stakeholders when such assistance is requested, efforts by staff to make compliance with the Nonpoint Source Policy compatible with restoration and enhancement projects, staff coordinating efforts within the Regional Water Board office to simplify and speed up the permit approval process, and formal recognition by the Regional Water Board of good works that improve water quality in the Scott River watershed.

Although the proactive efforts to restore and enhance water quality in the Scott River watershed are making a difference, it is the responsibility of the Regional Water Board to develop and implement actions that will ensure attainment of the sediment and temperature TMDLs and water quality standards. The Regional Water Board also recognizes that the state Nonpoint Source Policy requires that all nonpoint sources of pollution (including sediment waste discharges and elevated water temperatures) be regulated through prohibitions, permits in the form of waste discharge requirements (WDRs), or waivers of WDRs. Therefore, the following implementation actions are designed to encourage and build upon on-going, proactive restoration and enhancement efforts, comply with the state Nonpoint Source Policy, and – most importantly – ensure that the TMDLs are attained and water quality objectives are achieved.

Several of the implementation actions reflect an adaptive approach that outline the stages of implementation that are expected and the process for fully realizing the actions. For example, the implementation actions relating to Caltrans' storm water program (Section 5.1.5), suction dredge mining (Section 5.1.6), and water use (Section 5.1.8) all include a study program. For each of these implementation actions, a time line for completion of the study program is included.

The following implementation actions rely entirely upon existing authorities. No new authorities are proposed.

#### 5.1.1.1 Prioritization of Implementation Actions

Where reaches of the Scott River and its tributaries are providing suitable freshwater salmonid habitat, including coldwater refugia for coho and other salmonids, protection of these areas should be a priority for restoration efforts. Further discussion with landowners and stakeholders can help determine where restoration efforts are likely to yield the greatest benefit to beneficial uses. Prioritization may be scaled to a sub-watersheds or a stream reach.

#### 5.1.2 Road and Sediment Waste Discharge Implementation Actions for Individual Responsible Parties

This section addresses roads and other miscellaneous sources of sediment waste discharges. Within the Scott River watershed, there are approximately 223 miles of paved roads and approximately 2,468 miles of unpaved roads (see Table 3.4 towards the end of this Staff Report for the mileage of roads at different distances from streams in the watershed). As described in detail in the Sediment Source Analysis (Chapter 3), roads are the source of approximately ten percent of the anthropogenic sediment currently being discharged to the Scott River and its tributaries. Roads discharge sediment through surface erosion, stream crossing failures, gullies, cut and fill failures, and landslides. A road is defined as any vehicle pathway, including, but not limited to, paved roads, dirt roads, gravel roads, public roads and highways, private roads, rural residential roads and driveways, permanent roads, temporary roads, seasonal roads, inactive roads, trunk roads, spur roads, ranch roads, timber roads, skid trails, and landings which are located on or adjacent to a road.

In order to prevent, minimize, and control discharges of sediment waste from roads and other sources to the Scott River and its tributaries, the Regional Water Board shall (1) encourage<sup>1</sup> actions to prevent, minimize, and control road-caused sediment waste discharges; and (2) require the development, submittal, and implementation of Erosion Control Plans and monitoring of sediment waste discharge sites on an as-needed, site-specific basis. Both of these implementation actions are described below. Road-related implementation actions are also addressed in Section 5.1.13, in regards to Scott River Watershed Council; Section 5.1.3, in regards to the County of Siskiyou; and in Section 5.1.4, in regards to the California Department of Transportation.

##### 5.1.2.1 Encouragement of Road-Related Sediment Control Actions

As described in the Sediment Source Analysis (Chapter 3), roads used for timber harvest activities, agricultural purposes, residential access, and other uses within the Scott River watershed are sources of sediment waste discharges. Such roads may be owned by private or public individuals or entities and discharge sediment waste due to improper location, surfacing, drainage, or stream crossing design.

In order to prevent, minimize, and control sediment waste discharges from roads in the Scott River watershed, the Regional Water Board encourages the parties responsible for roads to take

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<sup>1</sup> It is important to note that encouragement does not waive or replace any applicable permitting or enforcement requirements under the Clean Water Act or the Porter-Cologne Water Quality Control Act.

the necessary actions to prevent, minimize, and control road-caused sediment waste discharges. Such actions may include the inventory, prioritization, control, monitoring, and adaptive management of sediment waste discharge sites caused by roads. Such actions may also include proper road inspection and maintenance. Inspection and maintenance is important as roads which are not maintained will likely result in chronic discharges of sediment waste.

#### 5.1.2.2 Erosion Control Plans & Monitoring

The Regional Water Board's Executive Officer shall require individual, private responsible parties/dischargers, on an as-needed, site-specific basis, to develop and submit an Erosion Control Plan and a Monitoring Plan. Should discharges or threatened discharges of sediment waste that could negatively affect the quality of waters of the State be identified in an Erosion Control Plan or by other means, dischargers shall be required to implement their Erosion Control Plan and monitor sediment waste discharge sites. Such requirements shall be specified in waste discharge requirements (WDRs), waivers of WDRs, cleanup and abatement orders, or other appropriate permitting or enforcement action(s). Parties are subject to such requirements if they are responsible for discharging or threatening to discharge sediment waste to water bodies in the Scott River watershed.

An Erosion Control Plan shall describe, in detail, sediment waste discharge sites and how and when those sites are to be controlled and monitored. A sediment waste discharge site is an individual, anthropogenic erosion site that is currently discharging or has the potential to discharge sediment waste to waters of the State. An Erosion Control Plan may be required to include any or all of the elements described in the *Guidance for the Development and Implementation of an Erosion Control Plan* (Appendix D).

The Porter-Cologne Water Quality Control Act (California Water Code, Division 7) provides the Regional Water Board with the primary authority for requiring Erosion Control Plans and monitoring. The authority to require dischargers to identify, assess, and monitor sediment waste discharge sites is found in California Water Code (CWC) Section 13267. The authority to require dischargers to control sediment waste discharge sites is found in CWC Section 13304 (pertaining to cleanup and abatement activities) and Section 13260 (pertaining to WDRs). Additionally, the requirements to implement an Erosion Control Plan through WDRs, waivers of WDRs, cleanup and abatement orders, or other appropriate permitting or enforcement action satisfies the requirements of the State *Policy for the Implementation and Enforcement of the Nonpoint Source Pollution Control Program*.

As stated above, any party responsible for a road or source that is discharging or threatening to discharge sediment waste to a water body in the Scott River watershed is potentially subject to the requirement to develop, submit, and implement an Erosion Control Plan and conduct monitoring. However, the Regional Water Board's Executive Officer shall require an Erosion Control Plan and monitoring on an as-needed, site-specific basis.

Within two years of the date that the TMDL Action Plan takes effect, specific criteria shall be developed for determining when an Erosion Control Plan shall be required. However, nothing precludes the Executive Officer from requiring Erosion Control Plans prior to the establishment

of the criteria. Until specific criteria are developed, erosion control plan requirements shall be focused on roads and other sediment waste discharge sites that are the greatest threat to water quality. The threat to water quality shall be determined by the impacts of the discharge or threatened discharge on the beneficial uses of the Scott River and its tributaries, and the significance of the discharge, including such factors as volume, percent delivery, and the feasibility and reasonability of control.

It is important to note that Erosion Control Plans are not likely to be required in large numbers until after encouragement efforts have the opportunity to prevent, minimize, and control sediment waste discharges. These efforts include the road-related strategic actions developed by the Scott River Watershed Council, a possible grading ordinance for Siskiyou County, and individual actions by parties responsible for roads. Should encouragement efforts fail to be adequate and effective at preventing, minimizing, and controlling sediment waste discharges, the Regional Water Board shall increase the use of existing authorities and regulatory tools, including increasing the number of Erosion Control Plans required of individual responsible parties/dischargers.

Should a responsible party/discharger be required to develop, submit, and implement an Erosion Control Plan and conduct monitoring, the responsible party/discharger will be notified in writing of the requirements. It is likely that, under the authority of CWC 13267, the responsible party/discharger will first be asked to submit any pertinent information on roads, road management, and sediment waste discharge sites that has already been collected by the responsible party/discharger. Following analysis of this information, the Executive Officer shall determine if further information, in the form of an Erosion Control Plan for example, is required. An Erosion Control Plan will likely not be required if the responsible party/discharger has completed a road management plan and/or erosion control plan that is adequate and effective at preventing, minimizing, and controlling sediment waste discharges. Conversely, if an Erosion Control Plan does not identify discharges that could negatively affect the quality of waters of the State, implementation of the Erosion Control Plan will not be required.

An Erosion Control Plan may be required to include any or all of the elements of an Erosion Control Plan described in the *Guidance for the Development of an Erosion Control Plan* (Appendix D). The primary elements of an Erosion Control Plan will likely include (1) an inventory of existing sediment waste discharge sites, roads, stream crossings, and unstable areas; (2) a priority list; (3) a description of sediment control practices; and (4) a schedule for the control of sediment waste discharge sites. These elements are described in detail in the Guidance. The Guidance also includes information on how sediment waste discharge sites can be prioritized for control and that an inventory should focus on sediment waste discharge sites that discharge at least 1 yd<sup>3</sup> per year or 10 yd<sup>3</sup> over ten years.

The Executive Officer shall specify in writing the required contents of an Erosion Control Plan. This is necessary to tailor an Erosion Control Plan to the unique characteristics of a watershed or a piece of property. For example, in several areas of the Scott River watershed, unstable areas have not been identified as a significant source of sediment waste discharges. Therefore, it is unlikely that an Erosion Control Plan in some parts of the Scott River watershed would be required to include an inventory of unstable areas.

### **5.1.3 Road Implementation Actions for the California Department of Transportation**

The California Department of Transportation (Caltrans) has jurisdiction over two state highways in the Scott River watershed: State Route 3, of which approximately 42 miles are within the watershed, and State Route 96, of which only 0.5 miles are within the watershed (CSU Sacramento, 2005a, CSU Sacramento, 2005b). State roads can be sources of anthropogenic sediment waste discharges due to improper location, surfacing, drainage, or stream crossing design.

The primary mission of Caltrans is to provide the people of California with a safe, efficient intermodal transportation system. This mission involves planning, designing, constructing, and maintaining large-scale transportation facilities, such as freeways, highways, interchanges, bridges, and tunnels.

Discharges of waste from Caltrans' facilities are regulated by the State Water Board under the National Pollutant Discharge Elimination System (NPDES) Permit, Statewide Storm Water Permit, and Waste Discharge Requirements (WDRs) for the State of California, Department of Transportation (Caltrans) (Order No. 99-06-DWQ and NPDES No. CAS000003), which was adopted on July 15, 1999. This permit, and the program to implement the permit, are generally known as the Caltrans Storm Water Program.

The overall goal of the Storm Water Program is to integrate appropriate storm water control activities into ongoing activities, thus making control of storm water pollution a part of Caltrans' normal business practices. As described by Caltrans (2005), components of the Storm Water Program include:

- Storm Water Management Plan (SWMP). Caltrans developed the SWMP to describe the procedures and practices used to reduce the discharge of pollutants to storm drainage systems and receiving waters.
- Annual Report and Regional Workplans. The Annual Report describes the activities that Caltrans has undertaken in the previous fiscal year to implement the SWMP. The Regional Workplans describe the activities that Caltrans Districts will undertake in the next fiscal year to implement the SWMP.
- Monitoring and Best Management Practice (BMP) Development. The purpose is to identify pollutants of concern in storm water runoff from Caltrans facilities and to describe how Caltrans identifies, evaluates, and approves BMPs.
- Public Education.
- Guidance for Design, Construction and Maintenance Activities. Guidance documents have been developed to implement storm water BMPs in the design, construction and maintenance of highway facilities.

In order to address sediment waste discharges caused by Caltrans roads and facilities, Regional Water Board staff shall evaluate the effect of the Caltrans Storm Water Program to determine if it is adequate and effective at preventing, minimizing, and controlling discharges of sediment waste in the North Coast Region, including the Scott River watershed. The evaluation shall be complete within two years of the date the TMDL Action Plan takes effect. If Regional Water Board staff find that the Caltrans Storm Water Program is inadequate, Regional Water Board and State Water Board staff shall develop specific requirements, for State Water Board consideration, to be incorporated into the Caltrans Storm Water Program at the soonest opportunity, or the Regional Water Board shall take other appropriate permitting or enforcement actions.

#### **5.1.4 Road Implementation Actions for the County of Siskiyou**

There are approximately 270 miles of county roads in the Scott River watershed, sixty-one of which are unpaved. Roads maintained by the County of Siskiyou are public roads that are not under the jurisdiction of the federal government, the State of California, or incorporated cities. County roads can be sources of anthropogenic sediment waste discharges due to improper location, surfacing, drainage, or stream crossing design.

The Siskiyou County Public Works Department's Road Division is responsible for providing safe and driveable public roadways through road resurfacing, rehabilitation, new construction, and routine maintenance (Siskiyou County, 2005). Routine maintenance includes pothole patching and crack filling of asphalt pavements, grading and dust control of unpaved roads, shoulder maintenance, guardrail repair and replacement, snowplowing of mountain roads, traffic sign maintenance and replacement, pavement striping, bridge inspection and repair, and cleaning and maintenance of drainage structures, such as culverts, catch basins, ditches, and gutters. The budget for county road work is inadequate to cover all the work that needs to be accomplished. Therefore, road work is prioritized in order to insure optimum use of available funds. The high priorities are to provide needed maintenance to protect the investment in existing roads and bridges and to provide for improvements to the safety, capacity, and serviceability of the roads (Siskiyou County, 2005).

The County of Siskiyou has been involved in the Five Counties Salmon Conservation Program, which developed the *County Road Maintenance Manual for Northwest California Watersheds. A Water Quality and Stream Habitat Protection Guide* (Sommarstrom et al., 2001). "The purpose of this manual is to provide a user-friendly, fish-friendly guide for County road maintenance staff as part of each county's mission to provide a safe and open road system for the traveling public" (Sommarstrom et al., 2001, p. iii). Through the Five Counties Salmon Conservation Program, the Siskiyou County Road Division has received training on the manual and sediment control practices designed specifically for county roads. Additionally, Siskiyou County has the opportunity with the Five Counties program to inventory their roads for sediment waste discharge sites. This program includes an inventory methodology, guidance, and a database for storing and analyzing the data.

In order to prevent, minimize, and control discharges of sediment waste caused by county roads, the Regional Water Board and the County shall work together to draft and finalize a Memorandum of Understanding (MOU). The MOU shall be drafted and ready for consideration

by the appropriate decision-making body(ies) of the County within two years of the date the Scott River TMDL Action Plan takes effect.

The MOU shall include the following:

- a date for the initiation and completion of an inventory of all sediment waste discharge sites caused by county roads within the Scott River watershed, which can be done with assistance from the Five Counties Salmonid Conservation Program;
- a date for the completion of a priority list of sediment waste discharge sites;
- a date for the completion of a schedule for the repair and control of sediment waste discharge sites;
- a date for the completion of a document describing the sediment control practices to be implemented by the County of Siskiyou to repair and control sediment waste discharge sites, which can be done with assistance from the Five Counties Salmonid Conservation Program;
- a description of the sediment control practices, maintenance practices, and other management measures to be implemented by the County of Siskiyou to prevent future sediment waste discharges, which can be done with assistance from the Five Counties Salmonid Conservation Program;
- a monitoring plan to ensure that the sediment control practices are implemented as proposed and effective at controlling discharges of sediment waste;
- a commitment by the County of Siskiyou to complete the inventory, develop the priority list, develop and implement the schedule, develop and implement sediment control practices, implement the monitoring plan, and conduct adaptive management.

In addition, the Regional Water Board encourages the County to adopt the *County Road Maintenance Manual for Northwest California Watersheds. A Water Quality and Stream Habitat Protection Guide* as County policy.

In developing the MOU, the Regional Water Board shall work with the County to develop time lines that take into consideration county resources and county obligations to provide and maintain safe and driveable county roads.

Through the development, review, and implementation of the MOU, Regional Water Board staff shall determine the appropriate permitting or enforcement actions necessary to prevent, minimize, and control sediment waste discharges and elevated water temperatures caused by county roads in the Scott River watershed. Such actions include, but are not limited to, WDRs, waivers of WDRs, cleanup and abatement orders, or other appropriate permitting or enforcement action.

Should the County fail to or choose not to develop, finalize, or execute a MOU, Regional Water Board staff shall initiate appropriate permitting or enforcement actions on county road work activities in the Scott River watershed, for consideration by the Board, without waiting for cooperative efforts from the County.

### **5.1.5 Ground Disturbance Implementation Actions for the County of Siskiyou**

Sediment waste may be discharged from land that has been improperly graded. Grading activities include excavating, earthwork, road construction, fills and embankments, dredging, diking, and prospecting. Grading ordinances established at the county level are often effective and appropriate means of addressing sediment waste discharges from improperly graded land, including roads. There are several benefits of a county grading ordinance, including improved erosion control, watershed protection, watershed or county-wide consistency, health and safety safeguards, and county-level influence and involvement in such regulation.

The County of Siskiyou currently requires subdivision maps to comply with the Siskiyou County Land Development Manual, including the prevention of sedimentation or damages to off-site property (Siskiyou County Code Sec. 10-4.108). The Land Development Manual (County of Siskiyou, 1975) includes standards and specifications for the construction, repair, or alteration of streets, roadways, alleys, concrete structures, drainage, sewerage, and water supply facilities.

In order to prevent, minimize, and control sediment waste discharges from road construction and maintenance, land disturbance, and grading activities outside of subdivisions in the Scott River watershed, the Regional Water Board encourages the County of Siskiyou to develop a more comprehensive ground disturbance ordinance or equivalent County-enforceable mechanism. The ordinance or mechanism may be specific to the Scott River watershed or county-wide in scope. Should the County fail to develop and adopt an ordinance or mechanism within a two years of the date the Scott River TMDL Action Plan takes effect, and in the absence of a grading ordinance or equivalent mechanism, the Regional Water Board shall use existing authorities and regulatory tools to ensure ground disturbance and grading activities are not discharging sediment waste on an individual, responsible party basis. This may include an increase in the number of Erosion Control Plans (Section 5.1.2.2) or WDRs required of individual responsible parties/dischargers. Should the County of Siskiyou adopt and approve an effective grading ordinance or equivalent mechanism, Regional Water Board staff is likely to develop, for Board consideration, a waiver of WDRs for ground-disturbing activities in the area covered by the ordinance or mechanism.

### **5.1.6 Dredge Mining Implementation Actions**

Current mining activities in the Scott River watershed primarily consist of recreational stream bank mining and suction dredge mining in select tributaries and certain reaches of the mainstem Scott River. Most of these activities take place on USFS land in the lower Scott River watershed (USFS, 2000). According to the USFS (2000, 1997), there are no permitted commercial mining operations on public land in the Scott River watershed. No information could be found regarding commercial mining operations on private land.

Suction dredging is an instream, motorized mining technique that uses a flexible hose to vacuum up river sediment for processing. Once sediments are sorted, the potential gold bearing materials are retained in a sluice while the remainder of the dredge sediments (tailings) are discharged downstream. The discharged tailings generally sort out as instream piles of larger particles that quickly settle close to the dredge and a plume of suspended sediment that is usually transported further downstream.

In regards to the effects of suction dredging on the beneficial uses associated with the cold water fishery, existing research is limited and available literature provides conflicting opinions. Suction dredging operations may cause sediment waste discharges through the following mechanisms (U.S. District Court, 2004):

1. Streambed and bank destabilization resulting from channel excavations and the hand-sorting by divers of cobble too large to pass through the dredge may increase scour and fill in areas previously unaffected by dredging.
2. Changes to surface substrate composition potentially affects fish, macroinvertebrates, and floral components of stream ecosystems. For example, fish eggs and larvae could be buried, and/or potential spawning gravels could become embedded with fine sediment after settling out downstream of dredged areas.
3. Replacement of natural spawning gravels by unstable dredge tailings that salmonids may use for egg deposition.
4. Destruction and/or redistribution of existing spawning riffles.

In the Scott River, field observations showed that only 12 of 372 salmon redds were built on dredge tailings because there is much more natural substrate available for redd construction (Kilgore, unpublished in Harvey and Lisle, 1999). However, Harvey and Lisle state that if natural spawning substrate is limited, redd building could take place on undesirable dredge tailings. In a literature review previous to the latter publication, Harvey and Lisle (1998) postulate that dredging near riffle crests can cause riffle crests to erode, leading to spawning site destabilization and, possibly, upstream pools becoming shallower. The authors also state that dredge tailings are likely to wash away during the first peak flows prior to upstream migration and spawning by salmonids, thus leaving no long-term impacts on salmonid habitat.

In contrast, some researchers theorize that in some watercourses, spawning substrate may be enhanced by suction dredging operations at locations where such substrate is lacking. For example, in reaches where an armor substrate layer exists, favorable spawning gravel may be exposed by mining activities (Kondolf et al., 1991, in Harvey and Lisle, 1998). However, the benefits of instream substrate redistribution from dredging could be negated if any newly exposed spawning substrate is loose and unstable, leaving it prone to washing downstream during the first peak flows prior to salmonid spawning activity. It has also been suggested that the depressions left after suction dredging provide cooler, deep-water habitat that was unavailable before dredging was initiated. Harvey and Lisle suggest that more research is needed regarding the effects of motorized suction dredging activities relative to the redistribution of instream substrates, and the possible instability of dredge tailings that could potentially be used for spawning by salmonids.

The literature suggests that the effects of active dredging on macroinvertebrate populations are also mixed. In a field study in Fortymile River and Resurrection Creek funded by the EPA (Royer et al., 1999), results showed that there are little to no long-term effects to macroinvertebrate populations downstream from gold dredging operations. There were, however, short-term losses of populations of macroinvertebrates at, and for some distance downstream of, dredging activity. Royer et al. showed that after dredging ceased at two sites, macroinvertebrate abundance losses were as high as 97% and taxa richness was reduced by 88%.

However, the abundance and diversity of macroinvertebrates were soon reestablished to levels near that prior to dredging. Royer et al. go on to state that the cumulative effects of multiple dredging operations on instream biota at these sites cannot be fully assessed, and may depend on the number of dredges operating, the efficiency of operations, and the rate and extent of macroinvertebrate re-colonization.

Fine sediment is also carried downstream in suspension during dredging operations. It appears that there is a dearth of scientifically documented information regarding the downstream effects of sediment re-suspension from suction dredging activities in gold-bearing watercourses, such as the Scott River. The cumulative effects of simultaneous multiple dredging operations on the Scott River are largely unknown but should warrant further scrutiny and monitoring (U.S. District Court, 2004; Harvey and Lisle, 1999).

The Karuk Tribe (U.S. District Court, 2004) describes possible impacts to the fishery from suction dredging operations may also occur through one of the following mechanisms not associated with sediment discharges:

1. Entrainment can cause direct and indirect mortality of fish, fish eggs, and other early life stages, particularly of salmonids.
2. Entrainment can cause direct and indirect mortality of benthic macroinvertebrates that are the primary prey species of salmonids.
3. Frightening of adult and juvenile summer steelhead or spring Chinook salmon, possibly inhibiting fish migration.
4. Synergy with existing high stream temperatures and other cumulative watershed effects are increased, further stressing salmonid populations.

According to the limited available literature on the subject, the effects of suction dredging on water quality are not fully known. However, the Rogue River and Siskiyou National Forests in Oregon, operating under the umbrella of the Northwest Forest Plan, determined in an Environmental Impact Statement that such mining activities may cause unavoidable adverse effects to the local resources (USFS, 2001).

In order to address potential impacts from dredge mining, both USFS district offices in the Scott River watershed request a Notice of Intent from dredge applicants. If the Notice of Intent indicates significant surface disturbance from proposed activities, then the USFS requires dredge miners to submit a Plan of Operations. There are a number of laws, regulations, policies, and plans directing the USFS to allow mining, including instream suction dredging operations, on Forest Service lands. In essence, all that is needed to prospect and mine for minerals, such as gold, is the designation and registration of a valid claim under the 1872 Mining Law and, as previously mentioned, the submittal of a Plan of Operations by the mine claimant to the local USFS district office (USFS, 2001). Plans of Operations allow the USFS to track claims and require the miner to remediate any adverse effects caused by their mining activities on USFS lands.

The CDFG is also involved with regulating suction dredge mining activities. The CDFG requires an annually renewable permit that limits suction dredging in the Scott River watershed

to the period of time between the fourth Saturday in May and September 30. The permit also restricts equipment, so that the upper size limit of the intake orifice at the end of the flexible hose that vacuums up river sediment is 8 inches (CDFG, 2005).

Currently, the U.S. Army Corps of Engineers is not requiring permits for suction dredge mining activities under Section 404 of the Clean Water Act. Since permits under Section 404 are not required, permits issued by the Regional Water Board under Section 401 of the Clean Water Act are also not required. However, if a proposed project does not require a federal permit, but does involve dredge or fill activities that may result in a discharge to "Waters of the State," the Regional Water Board has the option to regulate the project under the California Water Code in the form of waste discharge requirements (WDRs) or a waiver of WDRs. Currently, the Regional Water Board has not chosen to pursue WDRs for suction dredge mining activities.

In order to prevent, minimize, and control possible discharges of sediment waste, the Regional Water Board shall review laws and regulations that address water quality effects of suction dredge mining and shall investigate the impact of dredge mining activities on sediment and temperature loads in the Scott River watershed. Regional Water Board staff shall investigate the impacts of such activities on sediment redistribution and habitat modification from the re-deposition of larger, more settleable particles; the impacts of fine sediment particles; the impacts on instream biota from multiple plumes of suspended sediment; and the impacts of the day-to-day disturbances of motorized suction dredging. The investigation shall be completed within three years of the date the TMDL Action Plan takes effect. If Regional Water Board staff find that dredge mining activities are discharging deleterious sediment waste and/or causing elevated water temperatures, staff shall propose the regulation of such discharges through appropriate permitting or enforcement actions, including, but not limited to, WDRs or waivers of WDRs.

#### **5.1.7 Implementation Actions to Address Water Temperature and Vegetation that Provides Shade to a Water Body**

The Basin Plan contains a temperature water quality objective, which in part states that: "The natural receiving water temperature of intrastate waters shall not be altered unless it can be demonstrated to the satisfaction of the Regional Water Board that such alteration in temperature does not adversely affect beneficial uses" (NCRWQCB, 2005, p. 3-3.00).

The Basin Plan also states that: "Controllable water quality factors shall conform to the water quality objectives contained [in the Basin Plan]. When other factors result in the degradation of water quality beyond the levels or limits established [in the Basin Plan] as water quality objectives, then controllable factors shall not cause further degradation of water quality. Controllable water quality factors are those actions, conditions, or circumstances resulting from man's activities that may influence the quality of waters of the State and that may be reasonably controlled" (NCRWQCB, 2005, p. 3-1.00).

As described in the Temperature Source Analysis (Chapter 4), the shade provided to a water body by vegetation, especially riparian vegetation, has a dramatic, beneficial effect on stream temperatures. The removal of vegetation decreases shade, which increases solar radiation levels, which, in turn, increases stream temperatures. Additionally, the removal of vegetation increases

ambient air temperatures, can result in bank erosion, and can result in changes to the channel geometry in the form of wider and shallower stream channels, all of which increase water temperatures. Therefore, in order to maintain natural receiving water temperatures, natural shade conditions provided by vegetation must also be maintained. The natural receiving water temperatures are the temperatures that result when the environmental factors that influence stream temperature have not be altered by human activities. In the case of the Scott watershed, a key component of achieving such temperatures is achieving mature riparian forest conditions.

Riparian vegetation also provides other benefits to water quality, such as large woody debris recruitment, contributions to a cooler microclimate, stream bank stability, and food production for macroinvertebrates.

Establishing and maintaining riparian vegetation in support of temperature objectives may lead to consideration of other riparian conditions or functions, including for example channel form and sinuosity, surface water/groundwater connection, and low flow channel and flood plain connectivity. In general, it is expected that restoring or mimicking natural channel processes will lead to channel and riparian conditions that are supportive of water quality attainment, including meeting water quality objectives.

The need to retain vegetation that provides shade to a water body is paramount to attaining the temperature TMDL and temperature-related water quality standards in the Scott River watershed. In order to prevent, minimize, and control elevated water temperatures in the Scott River watershed, the Regional Water Board and staff shall take the following three actions.

First, the Regional Water Board encourages parties responsible for vegetation that provides shade to a water body in the Scott River watershed to preserve and restore such vegetation. This may include planting riparian trees, minimizing the removal of vegetation that provides shade to a water body, and minimizing activities that might suppress the growth of new or existing vegetation (e.g., allowing cattle to eat and trample riparian vegetation). The Regional Water Board also encourages the planting of native, non-invasive plants and understands that the removal of invasive, exotic species may be necessary to improve the long-term health of the riparian ecosystem. Restoration and enhancement projects that cause a short-term reduction in the amount of shade may be acceptable if, in the long-term (perhaps ten years) shade has increased and there is a net beneficial effect on stream temperatures.

Second, the Regional Water Board shall develop and take appropriate permitting and enforcement actions to address the human-caused removal and suppression of vegetation that provides shade to a water body in the Scott River watershed. Permitting actions may include, but are not limited to, general waste discharge requirements (WDRs) or waivers of WDRs for grazing and rangeland activities, farming activities near water bodies, stream bank stabilization activities, and other land uses that may remove and/or suppress vegetation that provides shade to a water body. Should general WDRs be developed, they may apply to the entire North Coast Region or just to the Scott River watershed. The Regional Water Board's Executive Officer shall report to the Board on the status of the preparation and development of appropriate permitting actions within [insert timeline to be determined] years of the date that the TMDL Action Plan takes effect.

Third, the Regional Water Board shall address the removal and suppression of vegetation that provides shade to a water body through the up-coming Stream and Wetland Protection Policy. During the 2004 Triennial Review of the Basin Plan, the Regional Water Board determined that the development of a Stream and Wetland Protection Policy is a high priority. The Policy will be a comprehensive, region-wide riparian policy that will address the importance of shade on instream water temperatures and will potentially propose riparian set-backs and buffer widths. The Policy will likely propose new rules and regulations, and will therefore take the form of an amendment to the Basin Plan. Regional Water Board staff are currently scheduled to develop this Policy by 2007, with funding available through a grant from the U.S. EPA.

The Regional Water Board also encourages and supports the use of conservation easements, land trusts, or similar mechanisms as tools to support the preservation and enhancement of riparian vegetation.

**5.1.8 Water Use Implementation Actions**

Groundwater and surface water use is intense in the Scott River watershed, particularly in the Scott Valley. All surface water rights in the Scott River watershed above the USGS gage station and groundwater within a delineated interconnected groundwater area are adjudicated. There are three adjudications in the Scott River watershed, the largest of which, the Scott River Adjudication, was established by a decree of the Superior Court of Siskiyou County (1980), based on findings and determinations by the State Water Board and its Division of Water Rights. The Scott River Adjudication was initiated by stakeholders in the watershed.

Groundwater and surface water use in the Scott River watershed has a significant effect on stream temperatures. As detailed in the Temperature Source Analysis (Chapter 4), changes in groundwater accretion and instream flows in the Scott River and its tributaries affect water temperatures. Groundwater accretion provides a stream with a source of cold water that dilutes the thermal energy in the stream, which increases a stream’s capacity to assimilate heat. Additionally, groundwater accretion increases the volume of water, which increases the thermal mass and velocity of the water. In the mainstem Scott River for example, as groundwater accretion is reduced, both the rate of heating and cooling and the maximum water temperatures increase dramatically. As groundwater accretion decreases, the temperature of the river becomes more responsive to shade and cold tributaries. Surface water diversions also impact stream temperatures - by reducing the velocity and thermal mass of a river which ultimately causes it to heat faster. Beneficial uses associated with the cold water fishery may not be achieved and protected without addressing these issues.

<b>Table 5.1 Water Rights Adjudications</b>			
<b>Adjudication</b>	<b>Year</b>	<b>Decree #</b>	<b>Approx. # of Water Rights Holders</b>
Shackleford Creek	1950	13775	45
French Creek	1958	14478	50
Scott River	1980	30662	680

**5.1.8.1 Water Conservation Implementation Actions**

Water conservation practices implemented by water users throughout the Scott River watershed can be an effective way of increasing groundwater accretion and instream flows in the Scott River and its tributaries. Water conservation practices include watering at night, soil moisture gauging, and tail-water reuse, groundwater percolation, and storage (USEPA, 2003b).

In order to prevent, minimize, and control elevated water temperatures in the Scott River and its tributaries, the Regional Water Board shall encourage water users to develop and implement water conservation practices. However, it is possible that, under the current structure of the Scott River Adjudication, simply saving water from one or more users may not result in benefits to water quality because other water right holders may divert more water if more water is available. Water conservation should be watershed-wide to be the most effective. Therefore, more study is needed, as discussed in the following section.

#### 5.1.8.2 Water Use Implementation Actions

Although the Temperature Source Analysis found that changes in groundwater accretion and surface water flow can have a deleterious effect on stream temperatures and the beneficial uses associated with the cold water fishery,<sup>2</sup> the analysis was not sufficient to determine whether groundwater use has caused a decrease in groundwater accretion rates. Is groundwater pumping and use affecting accretion rates? If yes, by how much? The analysis also did not indicate how surface water use is affecting groundwater accretion rates. Is water from leaking surface water diversion ditches infiltrating back into the groundwater aquifer? If yes, by how much?

Therefore, the Regional Water Board has determined that additional research must be conducted to study the connection between groundwater and surface water in the Scott River watershed, the impacts of groundwater use on surface flow and the beneficial uses associated with the cold water fishery, and the impacts of groundwater levels on the health of riparian vegetation. The study should consider groundwater that is located both inside and outside of the interconnected groundwater area delineated in the Scott River Adjudication (Superior Court of Siskiyou County, 1980) and the amount of water transpired by trees and other riparian vegetation. Should the study find deleterious impacts to beneficial uses, then the study should also identify potential solutions including mitigation measures and changes to management practices.

The Regional Water Board requests that the County of Siskiyou, in cooperation with the Quartz Valley Indian Community, Siskiyou Resource Conservation District (SRCD), and other appropriate stakeholders, conduct the above mentioned study. Regional Water Board staff have determined that working with the County and other stakeholders will be an effective means of conducting the study mentioned above, especially in the Scott Valley where existing forward momentum exists and stakeholders have demonstrated through past efforts their willingness to restore and enhance the Scott River and its tributaries. Additionally, as stated by County Supervisor Armstrong, “The County of Siskiyou intends to retain jurisdiction of its groundwater resources under its primary police powers to protect the public health, safety and morals of its citizens” (Armstrong, 2005, p. 6). The County has also instituted community dialogues and ad hoc workshops to offer assistance regarding possible strategies and objectives for developing groundwater management plans (Armstrong, 2005).

Should the County determine that it and its stakeholders are able to commit to conducting the above mentioned study, the County, in coordination with other appropriate stakeholders shall develop a detailed study plan within one year from the date the Scott River TMDL Action Plan takes effects. The study plan shall include: (1) a description of the study’s goals and objectives; (2) data collection methods and procedures; (3) the general locations of data collection sites; (4) data analysis methods and procedures; (5) quality control and quality assurance protocols; (6) the parties responsible for data collection, data analysis, and reporting; (7) timelines and due dates for data collection, data analysis, and reporting; (8) financial resources to be used; and

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<sup>2</sup> The beneficial uses associated with the cold water salmonid fishery in the Scott River watershed include the Cold Freshwater Habitat (COLD); Commercial or Sport Fishing (COMM); Rare, Threatened, and Endangered Species (RARE); Migration of Aquatic Organisms (MIGR); and the Spawning, Reproduction, or Endangered Species (SPWN) beneficial uses.

(9) provisions for adaptive change to the study plan and to the study based on additional study data and results, as they are available.

The Scott River Watershed Council (SRWC) is also addressing groundwater issues in the Scott River watershed. To the extent possible, Regional Water Board staff hope these efforts can dovetail with the above mentioned study. Cooperation and collaboration will likely greatly increase the effectiveness of all these efforts, reduce duplication, reduce any inconvenience landowners may experience, and produce a better product.

Should the County not succeed in conducting a groundwater study, the Regional Water Board would recommend and request the State Water Board and its Division of Water Rights perform an appropriate study and act in accordance with the results of the study to protect and restore the instream beneficial uses of the Scott River and its tributaries, with particular focus on those beneficial uses associated with the cold water fishery. Depending on the findings of the research, it may be appropriate for the State Water Board to ensure changes be made in how water is used in the Scott River watershed. For example, it may be appropriate to change how existing water rights are managed, perhaps through the employment of a water master. It may be appropriate to develop a requirement or target condition for the elevation of groundwater levels at key locations in the watershed. Such a requirement or target could vary depending on ambient groundwater conditions at the start of the irrigation season and/or precipitation from the previous winter. It may also be appropriate for the State Water Board to consider seeking modifications of the three adjudications in the watershed, to consider conducting proceedings under the public trust doctrine, and/or to consider conducting proceedings under the waste and unreasonable use provisions of the California Constitution and the California Water Code.

### **5.1.9 Flood Control and Bank Stabilization Implementation Actions**

Since the 1930s, extensive flood control structures have been built along the mainstem Scott River and the lower reaches of several tributaries. As stated in the Strategic Action Plan:

“Following a serious flood in the winter of 1937-38, Siskiyou County requested the U.S. Army Corps of Engineers to ‘clear the rivers throughout Scott Valley of debris from flooding.’ This work began in August 1938, and included constructing flood levees along the middle channel near Black Bridge (Etna *Western Sentinel*, 8/10/38). The Corps’ ‘debris clearing’ also removed much of the remaining riparian vegetation through the middle of the valley (Lewis, personal communication). Aerial photos of the river from 1944 reveal little or no vegetation along the Scott River’s banks” (SRWC, 2004, p. 5-7).

Additionally, as a result of a series of damaging floods from 1940 to 1974, earthen flood control levees were built along lower Etna, Kidder, and Moffett Creeks. Permanent bank stabilization structures were also designed and tested by the U.S. Soil Conservation Service (now the NRCS). Large rock structures proved to be the most flood-proof and, as a result, rock riprap has been placed along much of the Scott River and its tributaries to prevent the loss of farmland (SRWC, 2004).

The Corps and the NRCS do not retain jurisdiction or ownership over these levees and flood control structures. The responsible parties are often the owners of the property on which the flood control structures are located.

As stated earlier, the removal of vegetation decreases shade which increases solar radiation. Many of the existing flood control and bank stabilization structures in place in the Scott River watershed have caused or prevented abatement of elevated water temperatures, both cumulatively and on an individual project basis, through the removal and suppression of vegetation. First, the removal of vegetation for the installation of flood control structures often results in elevated water temperatures. Second, the presence of riprap and other hard surfaces along a stream bank can suppress vegetation and the establishment of potential vegetation conditions. Third, flood control and bank stabilization projects can change the geomorphology of a stream channel so that downcutting occurs. As the level of the stream channel drops, the level of the water table also drops. When the water table falls below the root zone of existing vegetation, vegetation survivability is reduced. Fourth, emergency responses after major floods may not support the reestablishment of riparian vegetation or of channel conditions supportive of the establishment and persistence of riparian vegetation.

It is important to note that flood control and bank stabilization projects can be done in a manner that does not result in elevated water temperatures. For example, a bank stabilization project that incorporates willows and other riparian vegetation can provide both bank stability and shade. Flood control and bank stabilization projects can also significantly modify the morphology of the channel. Results of models runs indicate that a reduction in channel widths along would result in moderate reductions in water temperatures in the mainstem Scott River (see Section 4.3.1.7).

In order to prevent, minimize, and control elevated water temperatures due to flood control and bank stabilization projects in the Scott River watershed, the Regional Water Board shall take the following actions. First, Regional Water Board staff shall encourage<sup>3</sup> parties responsible for levees and other flood control structures to plant and restore stream banks on and around existing flood control structures. Second, the Regional Board proposes an inter-agency working group to address issues of standards and protocols for responding to post-flood emergency response issues, as a means of identifying regulatory issues and resolving them prior to a flood emergency. Third, the Regional Water Board shall rely on existing authorities and regulatory tools, such as the 401 Water Quality Certification program,<sup>4</sup> to ensure that future flood control and bank stabilization activities in the Scott River watershed do not remove or suppress

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<sup>3</sup> It is important to note that encouragement does not waive or replace any applicable permitting or enforcement requirements under the Clean Water Act or the Porter-Cologne Water Quality Control Act.

<sup>4</sup> The 401 Water Quality Certification program is authorized by Section 401 of the federal Clean Water Act. Under this program, anyone proposing to conduct a project that requires a federal permit or involves dredge or fill activities that may result in a discharge to U.S. surface waters and/or "Waters of the State" are required to obtain a 401 Certification and/or Waste Discharge Requirements from the Regional Water Board, verifying that the project activities will comply with state water quality standards. The most common federal permit for dredge and fill activities is a CWA Section 404 permit issued by the Army Corps of Engineers. Additionally, if a proposed project does not require a federal permit, but does involve dredge or fill activities that may result in a discharge to "Waters of the State," the Regional Water Board has the option to regulate the project under the State Porter-Cologne Water Quality Control Act in the form of Waste Discharge Requirements or a Waiver of Waste Discharge Requirements.

vegetation that provides shade to a water body and minimize changes in channel morphology that could increase water temperatures.

### **5.1.10 Timber Harvest Implementation Actions**

As described in detail in the Sediment Source Analysis (Chapter 3), timber harvest activities discharge approximately 24% of the anthropogenic sediment currently being discharged to the Scott River and its tributaries (7% from harvest-related landslides and 17% from harvest-related small discrete streamside features). Current timber harvest activities discharge smaller volumes of sediment waste than past practices.

Timber harvest activities are defined as commercial and non-commercial activities relating to forest management and timberland conversions. These activities include the cutting or removal of both timber and other solid wood forest products, including Christmas trees. These activities include, but are not limited to, construction, reconstruction and maintenance of roads, fuel breaks, firebreaks, watercourse crossings, landings, skid trails, or beds for the falling of trees; fire hazard abatement and fuel reduction activities; burned area rehabilitation; and site preparation that involves disturbance of soil or burning of vegetation following timber harvesting activities; but excluding preparatory tree marking, surveying, or road flagging.

In order to prevent, minimize, and control sediment waste discharges and elevated water temperatures caused by timber harvest activities in the Scott River watershed, the Regional Water Board shall use existing permitting and enforcement tools, such as the timber harvest project approval process and the timber harvest general waste discharge requirements (WDRs) and waivers of WDRs. Additionally, the Regional Water Board shall coordinate efforts through habitat conservation plans and work with other agencies and organizations that are actively addressing water quality issues. These actions are described in detail below.

#### **5.1.10.1 Timber Harvest Project Approval Process**

The Regional Water Board, the California Department of Forestry and Fire Protection (CDF), and the Board of Forestry and Fire Protection all have direct authority and responsibility to oversee timber harvest activities on private and state-owned lands in California under the Z' Berg-Nejedley Forest Practice Act and the California Environmental Quality Act (CEQA). The Regional Water Board is active in the review of timber harvest plans (THPs), Non-Industrial Timber Management Plans (NTMPs), and other timber harvest projects throughout the North Coast Region.

The CDF and the State Water Resources Control Board (State Water Board) entered into a Management Agency Agreement (MAA) in 1987 to oversee water quality protection on timber harvest operations on non-federal lands in California. Under the MAA, the Board of Forestry and CDF are designated as the primary management agencies for timber harvest activities. However, as of 2003 under Senate Bill 810, a THP may not be approved if the Regional Water Board finds that the proposed timber harvest operations will result in (1) a discharge to a water body impaired by sediment or (2) in a violation of the Basin Plan.

Regional Water Board staff perform the following activities in relation to the timber harvest project review process: pre-harvest, active and post-harvest inspections; review team meetings; Habitat Conservation Plan/Sustained Yield Plan review; watershed analysis; stream monitoring; CDF and Board of Forestry meeting attendance; U.S. Forest Service meetings and review; enforcement and complaints; hillside vineyard conversions, and use of Senate Bill 810 authority.

In order to prevent, minimize, and control sediment waste discharges and elevated water temperatures in the Scott River watershed, the Regional Water Board shall continue to use existing permitting and enforcement tools to regulate discharges from timber harvest activities, including, but not limited to, cooperation with, and participation in, the California Department of Forestry and Fire Protection’s timber harvest project approval process.

5.1.10.2 Timber Harvest General Waste Discharge Requirements and Waivers

Waste discharge requirements are authorized in Division 7, Article 4 of the California Water Code. Section 13260 of the California Water Code states that persons discharging or proposing to discharge waste that could affect the quality of waters of the State, other than to community sewer systems, shall file a report of waste discharge. WDRs may take the form of individual or project-specific WDRs, watershed-wide WDRs, general WDRs, or waivers of WDRs.

In order to prevent, minimize, and control sediment waste discharges and elevated water temperatures from timber harvest activities on private and public lands in the Scott River watershed, the Regional Water Board shall continue to use WDRs, general WDRs, and waivers of WDRs to regulate timber harvest activities. The following two sections describe how WDRs and waivers are used on private versus public land.

Timber Harvest Activities on Private (Non-Federal) Lands

In 2004, to regulate the discharge of waste from timber harvest activities on private lands, the Regional Water Board adopted the Categorical Waiver of Report of Waste Discharge (Order R1-2004-0016) and the General Waste Discharge Requirements (Order R1-2004-0030) for Timber Harvest Activities in the North Coast Region. Both the Categorical Waiver and the General WDR program use the CDF timber-harvest, functional equivalent review process for THPs and NTMPs to ensure compliance with the California Environmental Quality Act.

The Categorical Waiver (R1-2004-0016) waives the requirement to submit a Report of Waste Discharge (ROWD), annual fee, and inspection and reporting requirements for a specific set of timber harvest activities, including fire-safe projects, exemption and emergency notices, projects in conformance with Regional Water Board adopted TMDL Action Plans, modified THPs, NTMPs with Erosion Control Plans, and THPs that meet specific eligibility criteria. These waiver categories are summarized in Table 5.2. Although the

<b>Table 5.2 Waiver Categories</b>	
Waiver Category A	Fire safe projects.
Waiver Category B	Emergencies and exemption projects.
Waiver Category C	Projects in conformance with adopted TMDL Action Plans.
Waiver Category D	Modified THPs.
Waiver Category E	NTMPs with Erosion Control Plans.
Waiver Category F	Timber harvest activities that meet specific eligibility criteria.

Categorical Waiver specifically lists such projects as eligible for the waiver, timber harvest activities in the Scott River watershed are not eligible for the waiver under Category C simply through the adoption of this TMDL Action Plan. In other words, Categorical Waiver C does not apply to timber harvest activities in the Scott River watershed. This is due to the fact that Categorical Waiver C is based on the assumption, as discussed in the Initial Study (NCRWQCB, 2004), that timber harvest activities in conformance with an adopted TMDL Action Plan would be subject to criteria and requirements of that TMDL Action Plan, including targets or goals to ensure recovery and restoration of instream biological resources, prescriptions to address geologic stability, and prescriptions to address hydrology and water quality. The Scott River TMDL Action Plan does not include such criteria, requirements, and prescriptions (such as Erosion Control Plan requirements, sediment waste discharge control requirements, and riparian vegetation retention requirements) for all timber harvest activities on non-federal lands in the Scott River watershed, except where such requirements may be specifically developed for an individual responsible party. It is important to note, however, that timber harvest projects in the Scott River watershed are still eligible for the Categorical Waiver under Waiver Categories A, B, D, E, and F, as appropriate. Timber harvest projects in the Scott River watershed are also eligible for individual waivers of WDRs, the general WDRs, individual WDRs, and ownership-wide WDRs as would be appropriate.

The General WDR provides an expedited program for the enrollment of the remainder of THPs in the region. Under the General WDR process, enrollment of THPs into the program is delegated to the Executive Officer so that each THP does not go through a new public notice process, Regional Water Board hearing, and Board vote on conformance with applicable requirements. Additionally, the General WDR requires that timber harvest operations be planned and designed to comply with water quality requirements through prevention and minimization techniques. The General WDR also requires the preparation of an erosion control plan, which includes an inventory of sediment discharge sources and a plan and schedule for the implementation of sediment discharge prevention and minimization measures.

The process of enrolling in either the Categorical Waiver or the General WDR is incorporated into the timber harvest project approval process. For those timber harvest activities not regulated by the Categorical Waiver or the General WDR, individual WDRs must be obtained.

#### Timber Harvest Activities on Federal Lands

In 2004, the Regional Water Board adopted the Categorical Waiver for Discharges Related to Timber Activities on Federal Lands Managed by the United States Department of Agriculture (Order R1-2004-0015). Timber Activities on federal lands must meet several conditions to qualify for the Categorical Waiver. These conditions include, among other provisions, conducting an environmental review of the project pursuant to the National Environmental Protection Act (NEPA), the maintenance of a water quality program consistent with the Basin Plan, and a verification system acceptable to the Regional Water Board, including, but not limited to, inspection, surveillance, enforcement, and monitoring of management practices.

##### 5.1.10.3 Habitat Conservation Plans

A habitat conservation plan (HCP) is a document that must accompany an application for an incidental take permit. An incidental take permit is required when non-federal activities will result in the take<sup>5</sup> of a threatened or endangered species, in accordance with Section 10 of the federal Endangered Species Act. An HCP describes how activities will be conducted so that effects on the species are adequately minimized and mitigated. Aquatic HCPs that focus on endangered or threatened anadromous salmonids are likely to include management practices and control measures that affect water quality, including sediment waste discharges and elevated water temperatures.

The Regional Water Board recognizes that HCPs may be effective and appropriate mechanisms to prevent, minimize, and control sediment waste discharges and elevated water temperatures in the Scott River watershed. Therefore, where a HCP is developed, Regional Water Board staff shall work with the HCP holder to develop, for Board consideration, ownership-wide waste discharge requirements (WDRs) for activities covered by the HCP, with any additional restrictions necessary to protect water quality and beneficial uses. If appropriate, ownership-wide WDRs may be specific to the entire Scott River Hydrologic Area, or to individual hydrologic sub-areas, super planning watersheds, or planning watersheds. In the absence of ownership-wide WDRs, timber harvest activities shall continue to adhere to the timber harvest project review process and the General WDRs or Categorical Waiver, as appropriate. Within the Scott River watershed, Fruit Grower's Supply Company, LLC (FGS) is currently developing a HCP that will address management activities for their timber harvest operations, roads, hillslope practices, and riparian management practices. FGS is the second largest timberland owner in the Scott River watershed, after the USFS. Regional Water Board staff are now working with, and shall continue to work with, FGS to incorporate necessary anthropogenic sediment waste discharge control measures, riparian protection measures, other water temperature related measures, monitoring, and adaptive management into the HCP.

### **5.1.11 Implementation Actions for the United States Forest Service**

The U.S. Forest Service (USFS) controls approximately forty one percent (213,000 acres) of land in the Scott River watershed. Timber harvest activities and roads on USFS land are sources of both sediment waste discharges and elevated water temperatures. This section discusses USFS efforts to address sediment waste discharges from roads and other sources, elevated water temperatures caused by timber harvest activities, and both sediment and temperature issues related to grazing of livestock. The section concludes with a discussion of implementation actions to address sediment waste discharges and elevated water temperatures.

#### **5.1.11.1 Sediment-Related Efforts**

The USFS conducted an inventory of sediment waste discharge sources, including roads, as part of the Lower Scott and Callahan Ecosystem Analyses (USFS, 2000b; USFS, 1997). Through this process, the USFS has inventoried at least twenty percent of their roads. The inventories

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<sup>5</sup> Per the federal Endangered Species Act, take is defined as harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect any threatened or endangered species. Harm may include significant habitat modification where it actually kills or injures an listed species through impairment of essential behavior, such as reproduction (USFWS 2004).

identified roads, stream crossings, and unstable areas that require sediment reduction, temperature moderations, and/or restoration. The inventory methodology is described in the *Field Guide. Explanations & Instructions for Klamath National Forest Road Sediment Source Field Inventory Form* (USFS, 2000a). Inventoried roads types include roads used for general public access, roads used for timber harvest activities, and cooperative roads that are the shared responsibility of the USFS and another responsible party. The USFS has also prioritized each site into high, medium, and low categories based on the assessed risk to the most sensitive resource possibly impacted if no restoration or remediation is implemented. The Ecosystem Analyses, however, do not describe how and when sediment waste discharge sites are to be repaired and managed.

5.1.11.2 Temperature-Related Efforts

The USFS administers the Klamath National Forest Land & Resource Management Plan (KLRMP). The KLRMP provides the overall management direction for lands within the Klamath National Forest (KNF), which includes the Scott River watershed. The President's Forest Plan for the Pacific Northwest, which includes an Aquatic Conservation Strategy, is applicable to the KNF. The Aquatic Conservation Strategy elucidates the *Standards and Guidelines for Riparian Reserves* that, for the most part, provide no-harvest and reduced-harvest buffers around fish bearing streams, other wildlife sensitive streams, unstable slopes, and other sensitive features.

In simplest terms, the USFS defines Riparian Reserves as forest land allocations intended to protect riparian areas. Riparian Reserves are also defined as lands along streams, unstable areas, and potentially unstable areas where special standards and guidelines direct land use (USDA-USDI BLM 1994, USDA 2004). Each USFS management district can tailor the riparian reserve buffers of the President's Aquatic Conservation Strategy to conform to local conditions. The Riparian Reserve buffer widths proposed by the USFS for the Lower Scott River and Callahan management areas, specific to reserve types, are included in Table 5.3 and Table 5.4.

Within the Riparian Reserve buffers, timber harvest is prohibited unless consistent with attaining Aquatic Conservation Strategy objectives, and there are restrictions and management practices pertaining to road use and construction, livestock grazing, mineral extraction, and recreation. Additionally, prohibitions for fuel wood cutting apply, with a few exceptions. The USFS must retain a Riparian Reserve that is sufficient to assure protection of aquatic and riparian function, as well as consider the benefits to riparian dependent and associated species.

Regional Water Board staff has determined that the Interim Riparian Reserves in the Scott River Ranger Districts (Tables 5.3 and 5.4) appear to adequately protect the beneficial uses of water from temperature related effects of timber harvest operations. The Riparian Reserve buffers

<b>Table 5.3 Recommended Interim Riparian Reserve Buffer Widths for the Lower Scott River Management Area<sup>1</sup></b>	
<b>Riparian Reserve Type</b>	<b>Interim Buffer Widths</b>
Fish-bearing streams.	340 feet or two site potential trees. <sup>2</sup>

Permanent, flowing, non-fish bearing streams; wetlands >1-acre; intermittent streams; marshes and springs.	170 feet or one site potential tree.
Unstable or potentially unstable lands, including dormant landslide toe zones.	340 feet or two site potential trees.

<sup>1</sup> Lower Scott Ecosystem Analysis, June 2000, p.3-8; 5-11.

<sup>2</sup> One site potential tree is 170 feet.

<b>Table 5.4 Recommended Interim Riparian Reserve Buffer Widths for the Callahan Management Area<sup>1</sup></b>	
<b>Riparian Reserve Type</b>	<b>Interim Buffer Widths</b>
Fish-bearing streams, lakes and natural ponds.	300 feet or two site potential trees. <sup>2</sup>
Permanent, flowing, non-fish bearing streams; wetlands >1-acre; intermittent streams; marshes and springs; constructed ponds and reservoirs.	150 feet or one site potential tree.
Wetlands <1-acre.	One-half tree height beyond riparian vegetation.
Unstable or potentially unstable lands, including dormant landslide toe zones.	Included in Riparian Reserve, subject to local interpretation.

<sup>1</sup> Callahan Ecosystem Analysis, March 1997, p. X-13.

<sup>2</sup> One site potential tree determined for the Callahan Management Area is 150 feet.

should, over time, result in increases in the riparian canopy, which will decrease high water temperatures. The buffers will also encourage the unfettered growth of riparian vegetation toward a late-seral community. The buffers will also be beneficial in controlling sediment waste discharges as riparian vegetation provides a filter to slow down and trap sediment before it is discharged to a water body.

### 5.1.11.3 Grazing-Related Efforts

Nearly all of the grazing of range cattle in the Scott River watershed involves driving and dispersing livestock to advantageous forage areas: from private ranches to forested lands managed by the USFS during late spring, summer, and early fall, and then back to private ranches, mostly on the valley floor, for the intervening time periods (USFS, 1997; USFS, 2000b). Past free range livestock grazing, mostly from the mid-1800s up to the mid-1900s, by cattle, sheep, horse and mule resulted in damage to aquatic resources in the Scott River watershed. This damage is most notably reflected in increased erosion, siltation, and habitat declines in riparian areas and associated watercourses (USFS, 2000b).

To manage the amount of cattle grazing on public land, the USFS has contracts for six allotments with cattle ranchers to allow grazing on 29,885 acres. Four of these allotments are entirely within the Scott River watershed, while two allotments span the watershed boundary. The number of cattle allowed for all six allotments is approximately 350 head of cattle, compared to an estimated 2,000 animals of all types prior to 1905, the date when the national forest and the concept of forest reserves were established (USFS, 2000b).

The USFS implements best management grazing strategies designed to lessen impacts to water quality that are detailed in a joint management agency document titled: *Riparian Area Management 1997* (USDA/USDI, 1997). In general, although livestock grazing is much reduced compared to historic conditions, the USFS is concerned that in some grazing allotments riparian shrub habitat may continue to be impacted by cattle where shrub utilization is high. In response to these concerns, the USFS monitors riparian areas in allotments in cooperation with allotment lessees. Some of the implemented mitigations in riparian corridors include deferred and rotational livestock grazing and riparian exclusionary fencing (USFS, 2000b).

#### 5.1.11.4 Implementation Actions

In order to prevent, minimize, and control sediment waste discharges and elevated water temperatures on federal land in the Scott River watershed, the Regional Water Board shall work with the USFS to draft and finalize a Memorandum of Understanding (MOU). The MOU shall be drafted and ready for consideration by the appropriate decision-making body(ies) of the USFS within two years of the date the TMDL Action Plan takes effect. The MOU shall address the following contents:

##### Contents Related to Sediment Waste Discharges:

1. A date for the completion of an inventory of all sediment waste discharge sites and all roads on USFS land within the Scott River watershed.
2. A date for the completion of a priority list of sediment waste discharge sites. Prioritization criteria may be based off the threat to water quality from each individual sediment waste discharge site or the benefit to beneficial uses and water quality from focusing control activities within a planning watershed or along a stream reach.
3. A date for the completion of a schedule for the repair and control of sediment waste discharge sites.
4. A date for the completion of a document describing the sediment control practices to be implemented by the USFS to repair and control sediment waste discharge sites.
5. A description of sediment control practices, road maintenance practices, and other management measures to be implemented by the USFS to prevent future sediment waste discharges.
6. A monitoring plan to ensure that sediment control practices are implemented as proposed and effective at controlling discharges of sediment waste.
7. A commitment by the USFS to complete the inventory, develop the priority list, develop and implement the schedule, develop and implement sediment control practices, implement the monitoring plan, and conduct adaptive management.

##### Contents Related to Elevated Water Temperatures:

1. A commitment by the USFS to make permanent and implement the Riparian Reserve buffers width requirements.
2. A monitoring plan to ensure that the Riparian Reserve buffer widths are effective at preventing or minimizing effects on natural shade.
3. A commitment by the USFS to implement the monitoring plan and conduct adaptive management.

#### Contents Related to Grazing Activities:

1. A date for the completion of a description of existing grazing management practices and riparian monitoring activities implemented in grazing allotments.
2. A commitment by the USFS and the Regional Water Board to determine if existing management practices and monitoring activities are adequate and effective at preventing, reducing, and controlling sediment waste discharges and elevated water temperatures.
3. A commitment by the USFS to develop revised management practices and monitoring activities should existing measures be inadequate or ineffective, subject to the approval of the Regional Water Board's Executive Officer.
4. A commitment by the USFS/BLM to implement adequate and effective grazing management practices and monitoring activities and to conduct adaptive management.

In developing the MOU, the Regional Water Board shall work with the USFS to develop time lines that take into consideration USFS resources.

Through the development, review, and implementation of the MOU, Regional Water Board staff shall determine the appropriate permitting or enforcement actions necessary to prevent, minimize, and control sediment waste discharges and elevated water temperatures from USFS lands in the Scott River watershed. Such actions include, but are not limited to, WDRs, waivers of WDRs, cleanup and abatement orders, or other appropriate permitting or enforcement action(s).

Additionally, the Regional Water Board shall continue to implement *Order No. R1-2004-015, Categorical Waiver for Discharges Related to Timber Activities on Federal Lands Managed by the United States Department of Agriculture*. When the waiver expires on March 24, 2009, the Regional Water Board maintains the option of renewing the order. If it is determined that the prescriptions of the MOU are implemented and effective at controlling sediment waste discharges and elevated water temperatures, Regional Water Board staff may recommend that an ownership-wide (in lieu of project-specific) waiver of WDRs be considered as part of an adaptive management approach to TMDL implementation.

Should the USFS choose not to participate in the development, finalization, and implementation of a MOU, Regional Water Board staff shall initiate appropriate permitting or enforcement actions on timber harvest activities on USFS land within the Scott River watershed, for consideration by the Board, without waiting for cooperative efforts from the USFS. Again, such actions include, but are not limited to, the development of WDRs for Board consideration.

#### **5.1.12 Implementation Actions for the United States Bureau of Land Management**

The United States Bureau of Land Management's (BLM) manages approximately 200 acres of land (< 1%) in the Scott River watershed, which consists mostly of dry foothills with ephemeral streams in the east-side portions of the watershed. The primary land use on BLM lands in the Scott River watershed is cattle grazing, although timber harvest, road use, and other activities are present or may occur in the future. Grazing activities include grazing allotments. Given the ecological characteristics and the dispersed nature of BLM land in the east side of the watershed, cattle grazing is expected to have a smaller impact to water quality on BLM lands than in the more temperate south and west areas of the watershed managed by the USFS. In order to lessen

impacts to water quality from grazing activities, BLM implements best management grazing strategies that are detailed in a joint management agency document titled: *Riparian Area Management 1997* (USDA/USDI, 1997).

In order to prevent, minimize, and control sediment waste discharges and elevated water temperatures from BLM lands in the Scott River watershed, the Regional Water Board shall work with the BLM to draft and finalize a Memorandum of Understanding (MOU). The MOU shall be drafted and ready for consideration by the appropriate decision-making body(ies) of the BLM within two years of the date the Scott River TMDL Action Plan takes effect. The MOU shall address the following contents:

#### Contents Related to Sediment Waste Discharges:

1. A date for the completion of an inventory of all sediment waste discharge sites and all roads on BLM land within the Scott River watershed.
2. A date for the completion of a priority list of sediment waste discharge sites.
3. A date for the completion of a schedule for the repair and control of sediment waste discharge sites.
4. A date for the completion of a document describing the sediment control practices to be implemented by the BLM to repair and control sediment waste discharge sites.
5. A description of sediment control practices, road maintenance practices, and other management measures to be implemented by the BLM to prevent future sediment waste discharges.
6. A monitoring plan to ensure that sediment control practices are implemented as proposed and effective at controlling discharges of sediment waste.
7. A commitment by the BLM to complete the inventory, develop the priority list, develop and implement the schedule, develop and implement sediment control practices, implement the monitoring plan, and conduct adaptive management.

#### Contents Related to Elevated Water Temperatures

1. A commitment by the BLM to make permanent and implement the Riparian Reserve buffers width requirements.
2. A monitoring plan to ensure that the Riparian Reserve buffer widths are effective at preventing or minimizing effects on natural shade.
3. A commitment by the BLM to implement the monitoring plan and conduct adaptive management.

#### Contents Related to Grazing Activities

1. A date for the completion of a description of existing grazing management practices and riparian monitoring activities implemented in grazing allotments.
2. A commitment by the BLM and the Regional Water Board to determine if existing management practices and monitoring activities are adequate and effective at preventing, reducing, and controlling sediment waste discharges and elevated water temperatures.
3. A commitment by the BLM to develop revised management practices and monitoring activities should such measures be inadequate or ineffective, subject to the approval of the Regional Water Board's Executive Officer.

4. A commitment by the BLM/BLM to implement adequate and effective grazing management practices and monitoring activities and to conduct adaptive management.

In developing the MOU, the Regional Water Board shall work with the BLM to develop time lines that take into consideration BLM resources.

Through the development, review, and implementation of the MOU, Regional Water Board staff shall determine the appropriate permitting or enforcement actions necessary to prevent, minimize, and control sediment waste discharges and elevated water temperatures from BLM lands in the Scott River watershed. Such actions include, but are not limited to, WDRs, waivers of WDRs, cleanup and abatement orders, or other appropriate permitting or enforcement action(s).

Should the BLM choose not to participate in the development, finalization, and implementation of a MOU, Regional Water Board staff shall initiate appropriate permitting or enforcement actions on timber harvest activities on BLM land within the Scott River watershed for consideration by the Board without waiting for cooperative efforts from the BLM.

### **5.1.13 Grazing Implementation Actions**

In general, the U.S. EPA lists agriculture, particularly livestock management, as having greater impacts on river contamination than any other non-point pollution source (USEPA, 2005). In the Scott River watershed, grazing and related activities discharge sediment waste and cause elevated water temperatures, especially in locations where grazing animals have direct access to a water body. Although not quantified in the Sediment Source Analysis, grazing animals discharge sediment waste through direct soil disturbance. Additionally, when grazing animals trample, eat, and suppress vegetation, soil stability is reduced. Water temperature is affected when grazing animals trample, eat, and suppress vegetation that would otherwise provide shade to a water body, thereby causing an increase in water temperatures.

#### **5.1.13.1 Encouragement of Grazing-Related Sediment and Temperature Control Actions**

The Regional Water Board encourages the parties responsible for grazing activities to take the necessary actions to prevent, minimize, and control sediment waste discharges and elevated water temperatures. Examples of recommended grazing management practices are listed in Table 5.5.

#### **5.1.13.2 Grazing and Riparian Management Plans**

In order to further prevent, minimize, and control sediment waste discharges and elevated water temperatures from grazing activities on private lands in the Scott River watershed, the Regional Water Board's Executive Officer shall require responsible parties, on an as-needed, site-specific basis, to develop and submit a Grazing and Riparian Management Plan and a Monitoring Plan. Should human activities that will likely result in sediment waste discharges and/or elevated water

temperatures be proposed or identified, through a Grazing and Riparian Management Plan or by other means, the responsible party(ies) shall be required to implement their Grazing and Riparian Management Plans through appropriate permitting or enforcement actions. Such requirements shall be specified in waste discharge requirements (WDRs), waivers of WDRs, cleanup and abatement orders, or other appropriate permitting or enforcement action(s). Responsible parties are subject to such requirements if livestock grazing activities on their property(ies) are discharging or threatening to discharge sediment waste and/or causing or threatening to cause elevated water temperatures to water bodies in the Scott River watershed.

A Grazing and Riparian Management Plan shall describe, in detail, (1) sediment waste discharges and sources of elevated water temperatures caused by livestock grazing, (2) how and when such discharges are to be controlled and monitored, and (3) management practices that will prevent and reduce future discharges.

The Porter-Cologne Water Quality Control Act (California Water Code, Division 7) provides the Regional Water Board with the primary authority for requiring Grazing and Riparian Management Plans and monitoring. The authority to require dischargers to identify, assess, and monitor sediment waste and/or elevated water temperatures is found in California Water Code

<b>Table 5.5 Recommended Grazing Management Practices</b>	
<b>Timing &amp; Location Practices</b>	Defer grazing. Postpone grazing or rest grazing land for a prescribed period of time.
	Planned grazing systems. Use two or more grazing units and alternatively rest a unit in sequence for a period of time, generally years, with shorter rest periods throughout the year or growing season.
	Use improved upland forage if available. This practice can lure cows away from the riparian corridor (Ehrhart & Hansen, 1998, as cited by Oregon State, 2005).
	Proper grazing use. Select an intensity of grazing that maintains sufficient pasture and field cover crops to protect the soil and nearby sensitive areas, such as riparian corridors and instream habitat.
	Proper woodland grazing. Select an intensity of grazing in wooded-forested areas that maintains adequate cover to protect the soil and nearby sensitive areas, such as riparian corridors and instream habitat.
<b>Water Supply/Use Practices</b>	Water troughs. Install water troughs or tanks for stock watering outside of riparian areas, where possible.
	Stock Water Conveyances. To minimize water losses from evaporation to the atmosphere and subsurface infiltration via porous or fractured diversion ditches and canals, replace earthen and open ditch stock watering conveyance systems with enclosed pipe.
	Wells. Construct new wells or make improvements to existing wells to keep livestock away from sensitive areas.

	Springs. Develop existing springs located outside of sensitive areas. Care should be taken so that spring development does not impact existing beneficial uses.
	Water Use. To accurately gage water rights allotments of water users, install flow meters or other proven and reasonably economical flow measurement technology to surface and groundwater diversions at the point of diversion from the parent watercourse and/or the wellhead.
Livestock Access Limitation Practices	Manage stock watering and livestock movement so that incursions into riparian areas and stream channels are minimized.
	Fencing. When other management practices fail to reduce livestock from riparian areas and watercourses, fencing and/or other permanent structures should be constructed as a barrier to control livestock access to such areas.
	Salt Licks. Locate salt licks away from riparian areas and water bodies. A distance of 1/3 mile is ideal (Ehrhart & Hansen, 1998).
	Stream Crossings. Provide a stabilized area to control access, for both livestock and machinery, and reduce erosion.
	Herding and riding of livestock. If passive grazing strategies fail to keep livestock out of sensitive areas, forcibly herd livestock from such areas.
General Practices	Develop a Ranch Water Quantity-Quality Conservation Plan.

(CWC) Section 13267. The authority to require dischargers to control such discharges is found in CWC Section 13304 (pertaining to cleanup and abatement activities) and Section 13260 (pertaining to WDRs). Additionally, the requirements to implement a Grazing and Riparian Management Plan through WDRs, waivers of WDRs, cleanup and abatement orders, or other appropriate permitting or enforcement action satisfies the requirements of the State *Policy for the Implementation and Enforcement of the Nonpoint Source Pollution Control Program*.

As stated above, any responsible party is potentially subject to the requirement to develop, submit, and implement a Grazing and Riparian Management Plan if livestock grazing activities on their property(ies) are discharging or threatening to discharge sediment waste and/or causing or threatening to cause elevated water temperatures to a water body in the Scott River watershed. However, the Regional Water Board’s Executive Officer shall require a Grazing and Riparian Management Plan and monitoring on an as-needed, site-specific basis.

Within two years of the date that the TMDL Action Plan takes effect, specific criteria shall be developed for determining when a Grazing and Riparian Management Plan shall be required. However, nothing precludes the Executive Officer from requiring Grazing and Riparian Management Plan prior to the establishment of the criteria. Until specific criteria are developed, grazing and riparian management plan requirements shall be focused on grazing activities that are the greatest threat to water quality. The threat to water quality shall be determined by the impacts of the discharge or threatened discharge on the beneficial uses of the Scott River and its tributaries, and the significance of the discharge, including such factors as volume, percent delivery, and the feasibility and reasonability of control.

It is important to note that Grazing and Riparian Management Plans are not likely to be required in large numbers until after encouragement efforts have the opportunity to prevent, minimize,

and control discharges. These efforts include encouraging the Siskiyou Resource Conservation District and the Scott River Watershed Council to implement the grazing management practices listed in Table 5.5. Should encouragement efforts fail to be adequate and effective at preventing, minimizing, and controlling discharges, the Regional Water Board shall increase the use of existing authorities and regulatory tools, including increasing the number of Grazing and Riparian Management Plans required of individual responsible parties/dischargers.

Should a responsible party/discharger be required to develop, submit, and implement a Grazing and Riparian Management Plan and conduct monitoring, the responsible party/discharger will be notified in writing of the requirements. It is likely that, under the authority of CWC 13267, the responsible party/discharger will first be asked to submit any pertinent information on grazing-caused discharges and management practices that has already been collected by the responsible party/discharger. Following analysis of this information, the Executive Officer shall determine if further information, in the form of a Grazing and Riparian Management Plan for example, is required. A Grazing and Riparian Management Plan will likely not be required if the responsible party/discharger has already developed and is implementing grazing practices that are adequate and effective at preventing, minimizing, and controlling sediment waste discharges and elevated water temperatures. Additionally, the Executive Officer shall specify in writing the required contents of a Grazing and Riparian Management Plan.

#### **5.1.14 Implementation Actions for the Scott River Watershed Council and the Siskiyou Resource Conservation District**

The Siskiyou Resources Conservation District (SRCD), like other resource conservation districts, is a local unit of government established under state law to carry out natural resource management programs at the local level. Resource conservation districts help landowners manage and protect land and water resources on nearly ninety-eight percent of the private lands in the United States (National Association of Resource Conservation Districts 2005). The SRCD seeks funding and provides technical assistance for landowners throughout the Scott River watershed. Past efforts include stream restoration projects, irrigation water application and water diversion management, low-flow management studies, stock water conservation management practices, and other programs. The SRCD cannot regulate responsible parties and other stakeholders in land use practices that may be related to TMDLs or other local, state, or federal regulatory mandates. However, the continued participation by the SRCD in the Scott River watershed is valuable for water quality and TMDL-related efforts. The experience of the SRCD with outreach and education to landowners is particularly valuable.

The Scott River Watershed Council (SRWC) is sponsored by the SRCD and provides a multi-interest effort to cooperatively seek solutions, to help manage local resources, and to solve related problems. The SRWC is composed of a diverse group of community members. State and local agency representatives act in an advisory capacity. The SRWC's primary role is to inform the community on resource issues, to aid in resource management, and to recommend prioritized project opportunities in the Scott River watershed to the SRCD for funding and implementation. Together, the SRCD and the SRWC work cooperatively to monitor the effectiveness of implemented programs, plans, and projects.

This section discusses one of the SRWC’s primary efforts, the Strategic Action Plan, which addresses multiple sources of sediment waste discharges and elevated water temperatures. Additionally, grazing and historic mining activities are discussed. This section concludes with implementation actions to address discharge sources through the SRCD and the SRWC.

The SRCD is also working with the California Department of Fish and Game to develop a watershed-wide Incidental Take Permit to address the listing of coho salmon as a threatened species under the state Endangered Species Act. See Section 5.1.16.4 for more information.

#### 5.1.14.1 Strategic Action Plan

The SRWC completed the Scott River Watershed Council Strategic Action Plan in 2004. The Strategic Action Plan forms the basis for setting priorities for future projects and management practices to be supported by the SRWC, the communities within the watershed, and the available funding sources. Included in the Strategic Action Plan are identified goals, priorities, and strategic actions that apply to fisheries, vegetation and habitat restoration, geology and soils, hydrology and water supply, water quality, land use, fire, community resources and socio-economics, community relations and education, and monitoring. Table 5.6 includes just several examples of the ninety-three strategic actions listed in the Strategic Action Plan. Table 5.10, located towards the end of this Staff Report, compares the actions of the Strategic Action Plan,

<b>Table 5.6</b>
<b>Strategic Actions from the Strategic Action Plan (SRWC 2004)</b>
Identify, prioritize and seek funding for fish habitat riparian restoration opportunities (F-1-B.b).
Evaluate locations where historic side channels/braids/wetlands can be connected to the floodplain without negatively impacting existing land uses, and work to implement feasible projects (F-2-C.a).
Establish artificial beaver dams where appropriate (F-2-C.b).
Evaluate riparian planting projects and make recommendations to improve planting programs. Include in the evaluations an assessment of why projects failed and modify accordingly (F-2-E.a).
Evaluate the geomorphology of the mainstem Scott River channel to identify potential demonstration projects (F-2-F.a).
Identify locations of thermal refugia (F-2-G.a).
Evaluate and recommend enhancements to expand thermal refugia (F-2-G.b).
Evaluate the ground and surface water recharge effects of irrigation ditches (W-1-A.a).
Working on the development of a groundwater study.
Where feasible, construct water storage on- and off-channel (W-1-B.a).
Investigate the feasibility and potential level of cooperation to temporarily dedicate water for instream flows during emergency situations. If feasible and acceptable, implement ongoing program (W-1-B.f).
Develop a manual to educate users about potential water conservation practices and why they are needed during low flow years (W-1-C.a).
Facilitate compliance with water rights as contained in the three adjudications in Scott Valley (W-1-C.b).
Where feasible, install systems that reuse tail or end water or percolate it through the ground to cool it (W-2-A.d).

Educate road users about road-related erosion problems and remedies (W-2-B.b).
Identify and correct existing drainage and erosion problems within the road prism, attempting to mitigate those sites with the greatest potential for impacting the stream system (W-2-B.c).
Develop an information handbook and work with livestock owners and land managers on timing and movement of grazers to minimize stream impacts (L-2-B.a).
Develop a standardized monitoring protocol for pre- and post-project monitoring that can be used by any party (M-1-D.a).
Offer photo monitoring seminars (M-2-C.a).
Develop a MOU with landowners and agencies on data sharing (M-2-E.a).

the Coho Recovery Strategy, the Incidental Take Permit, and the TMDL Action Plan. The strategic actions listed in both of these tables are those actions that most directly apply to sediment and temperature issues.

Many of the strategic actions will be of direct benefit to water quality in the Scott River watershed and will address sediment waste discharges and elevated water temperatures. Additionally, the community-based nature of the SRWC, their accomplishments to date, their history in the watershed, and the trust they have established with a diverse group of interested individuals and community members make the SRWC highly suited to implement sediment and temperature control practices. Because of their unique standing in the watershed, the SRWC is also in the valuable position of being able to effectively encourage and assist individuals in developing and implementing management practices that prevent, minimize, and control discharges.

#### 5.1.14.2 Grazing Management Practices

In regards to grazing activities, many management practices have already been developed by the Farm Bureau, the University of California Cooperative Extension, the SRCD, and the NRCS, among others. Several of these management practices are listed in Table 5.5 as recommended actions for those that oversee and manage grazing activities in the Scott River watershed.

#### 5.1.14.3 Historic Mining Issues

Within the Scott River watershed, historic gold mining activities primarily consisted of large scale dredging, hydraulic, and sluice mining activities. Such activities largely occurred along the mainstem Scott River downstream of Callahan, in Quartz Valley, in Oro Fino Creek, Shackelford Creek, and Mill Creek watersheds, with lesser activity in French Creek and the East Fork Scott River (USFS, 2000). The effects of these historic mining activities are still evident to this day.

The most persistent legacy effects are those of a large “Yuba Dredge” that dredged river and valley floor alluvium to bedrock and then deposited extensive tailing (spoils) piles behind the dredge as it moved forward searching for gold. This environmentally destructive method of mining left a five to six mile long reach of gravel-cobble sized tailing piles in the upper mainstem Scott River and its floodplain from Callahan to just above Fay Lane, and also in portions of McAdams and Wildcat Creeks (SRWC, 2004; Quigley et al., 2001).

Historic tailing piles in the Scott River watershed, and especially the tailing piles around Callahan, have caused and/or are causing elevated sediment loads and water temperatures in the Scott River and its tributaries. First, the historic mining left sediment deposits that remain in the system today, cutting off tributary streams from the mainstem Scott River. This results in tributary reaches that dewater and prevent salmonid passage. Second, the tailing piles have confined and constricted the Scott River, which encourages high energy, flushing storm water events to pass quickly downstream. As a consequence, during storm events, the rapidly moving flows uproot and carry shade producing riparian vegetation that may have been established during low flow conditions, either naturally or through restoration projects (SRWC, 2004). Additionally, the rapidly moving flows prevent the anchoring of large wood and other channel modifying structures that could provide necessary instream salmonid habitat (Quigley, 2003). Finally, historic mining activities included the building of unscreened diversion channels, dams often used to store water for diversions, and inadequate road-stream crossings. Fortunately, these problems have largely been eliminated through efforts of the CDFG, the USFS, and local watershed groups such as the SRWC (SRWC, 2004; USFS, 2000).

The Strategic Action Plan (2004) includes a discussion on vegetation and habitat restoration that incorporates recommended strategic actions pertinent to the dredge tailings. Several of these strategic actions are listed in Table 5.6.

#### 5.1.14.4 Implementation Actions

In order to prevent, minimize, and control sediment waste discharges and elevated water temperatures from a variety of sources in the Scott River watershed, the Regional Water Board shall take the following two actions.

First, the Regional Water Board and staff shall increase efforts to work cooperatively with the SRCD to provide technical support and information to willing individuals, landowners, and community members in the Scott River watershed and to coordinate educational and outreach efforts.

Second, the Regional Water Board shall encourage the SRWC to (1) implement the strategic actions specified in the Strategic Action Plan and (2) assist landowners in developing and implementing management practices that are adequate and effective at preventing, minimizing, and controlling sediment waste discharges and elevated water temperatures. Such actions should address almost all sources of sediment waste and elevated water temperatures in the watershed, including grazing management activities and dredge tailing restoration specifically mentioned above. By implementing the strategic actions, the SRWC will greatly aid in the attainment of sediment and temperature water quality standards in the Scott River watershed. Additionally, implementing the strategic actions will likely result in a higher priority ranking for the SRWC when applying for grant funding from the Regional and State Water Boards.

#### **5.1.15 Implementation Actions for the Natural Resources Conservation Service and University of California Cooperative Extension**

The Natural Resources Conservation Service (NRCS) provides aid in securing financial assistance and provides technical support for the implementation of beneficial management practices throughout the United States. Several programs may be available to agricultural interests in the Scott River watershed, including an Irrigation and Water Management Program under the umbrella of the NRCS Conservation Planning Program.

The NRCS does not get involved in a regulatory capacity directing responsible parties and other stakeholders in administering recommendations for land use practices that may be related to TMDLs or other local, state, or federal regulatory mandates. However, the continued participation by the NRCS in the Scott River watershed is valuable for water quality and TMDL-related efforts. The technical resources available to responsible parties and stakeholders through the NRCS is particularly useful for preventing, minimizing, and controlling sediment waste discharges and high water temperatures. Therefore, the Regional Water Board shall increase efforts to work cooperatively with the NRCS to provide technical support and information to willing responsible parties and stakeholders in the Scott River watershed and to coordinate educational and outreach efforts. The Regional Water Board encourages the NRCS to consult with other agencies, including the Regional Water Board, on activities that may affect water quality and compliance with water quality objectives.

University of California Cooperative Extension also provides advice and support to the agricultural community, including on issues related to compliance with water quality regulation and regulatory programs. The Rangeland Water Quality Management planning process is an example of such advice and support. The Regional Water Board will continue to work cooperatively with UCCE to provide technical support and information to willing responsible parties and stakeholders in the Scott River watershed and to coordinate educational and outreach efforts.

### **5.1.16 Implementation Actions for the California Department of Fish and Game**

The California Department of Fish and Game (CDFG) is involved in water quality issues in the Scott River watershed through several programs, including 1600 permits, outreach efforts, and the Coho Recovery Strategy. These programs are discussed below.

#### **5.1.16.1 1600 Permits**

The CDFG reviews and inspects activities on private land for compliance with California Fish and Game Code Sections 1600-1616. These sections apply to all land management activities that may or will result in alterations to watercourses. Section 1602 states paraphrastically that an entity may not substantially divert or obstruct the natural flow of, or substantially change or use any material from the bed, channel, or bank of, any river, stream, or lake, or deposit or dispose of debris, waste, or other material containing crumbled, flaked, or ground pavement where it may pass into any river, stream, or lake, unless the permit applicant has prescribed measures that either avoid, and/or mitigate altering or damaging the bed, channel, or bank of watercourses so as not to harm the beneficial uses of water. Section 1611 is specific to timber harvest operations and to developing mitigations for stream crossings, culverts, bridges, etc., that are necessary for vehicular and other traffic. Additionally, Section 1611 requires that timber harvest plans detail

what steps will be taken if water from a nearby watercourse is diverted or impounded for activities such as road watering for dust abatement and other uses associated with harvesting timber.

#### 5.1.16.2 Outreach Efforts

The CDFG works in partnerships with the SRCD, private stakeholders, and other responsible parties. Their funding and cooperation with stakeholders has been instrumental in the implementation of stream restoration and enhancement projects in the Scott River watershed. In addition to providing funds and in-kind contributions, partners have been given support and funding by participating in SRWC planning and working committee meetings. Coordination of the SRWC is also supported through funding provided by the CDFG's California Coastal Salmon Recovery Program.

#### 5.1.16.3 Coho Recovery Strategy

The CDFG has also developed a statewide *Recovery Strategy for California Coho Salmon* (Coho Recovery Strategy), which includes descriptions of the Scott River watershed and recommendations for the recovery of coho salmon that are specific to both the Scott River and Shasta River watersheds (CDFG, 2004). Implementation actions in the Coho Recovery Strategy are mostly of a general nature, but in many instances, address individual streams and reaches, and near-stream and upslope areas when deemed critical to the recovery of coho salmon habitat. Several actions from the Coho Recovery Strategy are paraphrased in Table 5.7.

**Table 5.7**  
**Tasks and Actions from the Coho Recovery Strategy (CDFG, 2004)**

Topic/Source	Action/Recommendation	Impairment(s)and/or Resource(s) Primarily (X) and Secondly (x)		
		Sediment	Temperature	Habitat
Riparian Vegetation	Encourage riparian restoration projects using locally native vegetation (HM-1-1c).	x	X	x
Riparian Vegetation	Continue riparian easement programs (HM-1-1d).	x	X	x
Riparian Vegetation	Educate non-agricultural landowners on the importance of not removing riparian vegetation (HM-4c).	x	X	x
Riparian Vegetation	Promote and encourage protection of riparian zones that are important for coho salmon through fencing or other measures (P-2).	x	X	x
Sediment	Improve spawning gravel quantity and quality. Develop a sediment budget. Design, secure funding, and implement projects (HM-4d).	X	x	x
Sediment	Identify, quantify, and remedy sources of fine sediment (HM-3d and HM-4c).	X	x	x
Roads	Where agricultural roads have a potential effect on coho salmon, conduct roads inventory and assessment. Implement remediation actions and monitor effectiveness (MA-1a).	X	x	X
Water Use	Determine unused diversion rights and approach those diverters about providing flows for instream use without impacting the water rights of others (WM-5b).	x	X	x
Water Use	Seek funding to conduct instream flow studies to determine flow-habitat relationships (WM-9).	x	X	X
Water Use	Provide a structured process for willing participants to donate, sell, or lease water or water rights to provide improved stream flow (WA-1).	x	X	X
Water Use	Acquire water rights that shall be dedicated to instream flow (WA-7).	x	X	X
Water Use	Initiate study on options for a tailings rehabilitation and water storage project (WA-5).	X	X	X
Groundwater	Prepare a comprehensive study to determine the current status of groundwater in the Scott Valley and its relationship to surface flows (WM-10b).	x	X	x
Dredge Tailings	Restore the Scott River flood plain in the Callahan Dredge Tailings reach (Scott HM-2c).	X	X	X

#### 5.1.16.4 Incidental Take Permits

Section 1602 of the California Endangered Species Act prohibits the unauthorized take<sup>6</sup> of threatened species, including coho salmon. “The [CDFG] may authorize take of a listed species by issuing a permit, known as an ‘Incidental Take Permit,’ if the take is incidental to otherwise lawful activity, such as a permitted agricultural diversion, and any take is minimized and fully mitigated” (CDFG, 2005, p. 1). Parties whose activities may result in a take of coho can comply with Section 1602 by individually applying for an Incidental Take Permit.

Additionally, in order to ease possible burdens on landowners conducting certain activities in the Scott River watershed, the CDFG is currently working with the Siskiyou Resource Conservation District (SRCD) on a watershed-wide permitting approach. The activities covered by the Watershed-wide Incidental Take Permit include water diversion and irrigation activities, livestock management, fishery restoration projects, and vehicular use associated with the aforementioned activities.

Under the Watershed-wide Incidental Take Permit, the SRCD will be the permit holder allowing individual landowners to enroll in the program as sub-permittees. The sub-permittees will work directly with the SRCD, avoid a CDFG fee, and be protected from enforcement action under the Endangered Species Act.

In order to fully avoid, minimize, and mitigate for incidental take of coho salmon under the Watershed-wide Incidental Take Permit, the SRCD developed avoidance, minimization, and mitigation measures. The SRCD has also developed a plan to monitor effectiveness and compliance. The avoidance, minimization, and mitigation measures proposed by the SRCD as permit requirements are included in Table 5.8. For more information and details on these measures, please see the Incidental Take Permit application (SRCD, 2005c) available from the SRCD. Table 5.8 is a summary for information purposes only and is not intended to be a comprehensive or exhaustive list of all the measures included in the application.

As of the time of this writing, the SRCD has submitted their application to CDFG for their Watershed-wide Incidental Take Permit for Coho Salmon, and CDFG is reviewing the application. Changes to the scope of the permit and the avoidance, minimization, and mitigation measures may yet occur. The following information on the Watershed-wide Incidental Take Permit is based on the permit application (SRCD, 2005c).

A summary of the avoidance, minimization, and mitigation measures of the Watershed-wide Incidental Take Permit Application and the implementation actions of the Scott River TMDL Action Plan are listed in Table 5.9. A more extensive version of Table 5.9 can be found towards the back of this Staff Report in Table 5.10.

#### 5.1.16.5 Implementation Actions

In order to prevent, minimize, and control sediment waste discharges and elevated water temperatures in the Scott River watershed, the Regional Water Board shall encourage the CDFG

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<sup>6</sup> Take means to hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill.

and aid, where appropriate, in the implementation of necessary tasks, actions, and recovery recommendations as specified in the Coho Recovery Strategy. This process will likely involve the creation of an inter-agency working group. Such a working group would likely include representatives from other agencies as well. Regional Water Board staff also intend to work with CDFG staff in the development of the Watershed-wide Incidental Take Permit, especially in relation to criteria for watercourse crossings and the requirements for the grazing management plan.

<b>Table 5.8 Incidental Take Permit Application's Avoidance, Minimization, and Mitigation Measures</b>	
<b>Topic</b>	<b>Measures</b>
In-stream Habitat Improvement	<ul style="list-style-type: none"> <li>• The SRCD shall identify, design, and install spawning area enhancement structures in areas where spawning gravels are not plentiful.</li> <li>• The SRCD shall install 20 in-stream structures, such as large woody debris and boulder structures to improve pools and cover.</li> </ul>
Fish Rescue	<ul style="list-style-type: none"> <li>• The sub-permittee shall provide reasonable access to CDFG for fish rescue operations.</li> </ul>
Fish Passage	<ul style="list-style-type: none"> <li>• The sub-permittee shall modify or replace water diversion structures to allow for fish passage.</li> <li>• The SRCD shall modify or replace at least 5 diversion structures per year (35 – 40 existing structures currently impede fish passage).</li> <li>• The SRCD shall install a fish ladder at the Scott Valley Irrigation District diversion head to provide for juvenile coho passage.</li> <li>• The SRCD shall install a boulder weir and improved head works at Farmers Ditch.</li> <li>• The SRCD shall develop a project to provide fish passage over an existing pond on Rail Creek.</li> </ul>
Fish Screens	<ul style="list-style-type: none"> <li>• The sub-permittee shall fit each water diversion structure with an appropriate fish screen.</li> <li>• The sub-permittee shall use and maintain fish screens.</li> </ul>
Water Use	<ul style="list-style-type: none"> <li>• The sub-permittee shall install head gates and/or devices to measure/control diverted water.</li> <li>• The SRCD shall install at least 5 head gates and/or devices to measure/control diverted water per year (40 active diversions are currently in need of such structures).</li> <li>• The sub-permittee shall adhere to water rights.</li> <li>• The SRCD shall develop a water diversion verification method (e.g., watermaster service).</li> <li>• The SRCD has requested the permit include a condition that any measure specified in the permit be modified so as to eliminate any significant risk of a sub-permittee losing a portion or all of their water right if such a risk should exist.</li> </ul>

**Table 5.8  
Incidental Take Permit Application's  
Avoidance, Minimization, and Mitigation Measures**

Topic	Measures
In-stream Flow	<ul style="list-style-type: none"> <li>• In French and lower Shackleford creeks, the sub-permittee shall make diverted water usually used for agricultural purposes available for in-stream flow if connectivity with the Scott River is about to be broken prior to June 15. The SRCD shall pay the sub-permittee for the otherwise diverted water that is used for in-stream flow.</li> <li>• The SRCD shall develop the necessary legal steps and funding sources to allow for payments to sub-permittees for the otherwise diverted water that is used for in-stream flow.</li> <li>• The SRCD shall work with CDFG and water users to develop a water-saving solution to Fay Ditch, with saved water going to in-stream flow.</li> <li>• The SRCD shall develop and implement a contingency plan for dry and critically dry water years. The contingency plan will include measures to augment stream flow with groundwater, a plan to monitor irrigation starts and stops to minimize rapid reductions in stream flows, and a pilot program to evaluate the effectiveness of relocating rescued juvenile fish to upstream locations.</li> <li>• The SRCD shall work with sub-permittees diverting water for livestock to minimize the amount of water diverted.</li> <li>• The SRCD shall install an average of 3 livestock water systems per year that use groundwater instead of surface water, with saved water going to in-stream flow.</li> </ul>
Riparian Fencing & Planting	<ul style="list-style-type: none"> <li>• The sub-permittee shall install riparian fencing within a schedule specified by the SRCD.</li> <li>• The sub-permittee shall allow riparian fencing and planting to occur on their property.</li> <li>• The SRCD shall develop a riparian planting program.</li> <li>• The SRCD shall prioritize riparian fencing and planting activities.</li> </ul>
Grazing Activities	<ul style="list-style-type: none"> <li>• The sub-permittee shall ensure there is no intentional grazing of livestock within the bed, bank, or channel of the water bodies within the Scott River watershed without a grazing management plan approved and monitored by CDFG.</li> </ul>
Roads	<ul style="list-style-type: none"> <li>• From November 1 to April 15, the sub-permittee shall cross flowing streams only at prepared crossing sites with livestock and vehicles. These crossing shall meet specific criteria (see the permit application for details).</li> <li>• From November 1 to April 15, for the mainstem Scott River upstream of Young's Point Dam, including the East Fork Scott River, the sub-permittee shall cross flowing streams with livestock and vehicles only when redds are found to not be present.</li> </ul>

<b>Table 5.9 Summary Comparison of the Incidental Take Permit and the Scott River TMDL Action Plan</b>		
<b>Topic</b>	<b>Incidental Take Permit Application</b>	<b>Scott River TMDL Action Plan</b>
<b>Primary Focus</b>	Agricultural water use and livestock management.	All land uses in the watershed.
<b>In-stream Habitat Improvement</b>	Addresses through specific habitat improvement projects.	Does not address.
<b>Fish Rescue</b>	Addresses by allowing access to CDFG.	Does not address.
<b>Fish Passage</b>	Addresses through the modification / replacement of water diversion structures, fish screens, and specific fish passage projects.	Does not address.
<b>Water Rights</b>	Addresses through the use of water diversion measuring/control devices and adherence to water rights.	Addresses by requesting the County to study the groundwater and surface water issues.
<b>In-Stream Flow</b>	Addresses through water banking, planning for dry years, and specific water conservation projects.	Addresses by encouraging water conservation.
<b>Riparian Fencing &amp; Planting</b>	Addresses through the use of riparian fencing and planting programs.	Addresses by encouraging the retention and restoration of vegetation and through the use of permitting and enforcement actions.
<b>Grazing Activities</b>	Addresses by ensuring no grazing in the bed, bank, or channel without a CDFG grazing management plan.	Addresses through the use of a Grazing and Riparian Management Plan, permitting and enforcement actions, and through MOUs with the USFS and BLM.
<b>Roads</b>	Addresses stream crossings.	Addresses all private roads in the watershed through the use of Erosion Control Plans and permitting and enforcement actions. Addresses County and State roads through MOUs.
<b>Timber Activities</b>	Does not address.	Addresses through the use of existing permitting programs and through MOUs with the USFS and BLM.
<b>Flood Control &amp; Bank Stabilization</b>	Does not address.	Addresses by encouraging planting and stream bank restoration and through the use of existing permitting programs.
<b>Dredge Mining</b>	Does not address.	Addresses by investigating potential impacts.
<b>Cooperative Efforts</b>	Does not address.	Addresses through commitments to work cooperatively with SRCD, SRWC, NRCS, and CDFG.

## **5.2 PERMITTING AND ENFORCEMENT ACTIONS**

Although the Regional Water Board prefers to pursue the implementation actions described in Section 5.1, the Regional Water Board shall take appropriate permitting and enforcement actions should any of the implementation actions described in Section 5.1 above fail to be implemented by the responsible party(ies) or should the implementation actions prove to be inadequate. The federal Clean Water Act and the California Water Code (CWC) authorize the Regional Water Board to use permitting and enforcement tools to control waste discharges and ensure attainment of water quality standards.

### **5.2.1 Permitting**

Permitting tools that may be applicable include, but are not limited to:

1. The authority to require technical reports and reports on the conditions and operation of a facility, in accordance with CWC §13267.
2. The authority to require monitoring reports, in accordance with CWC §13267.
3. The authority to inspect a facility, in accordance with CWC §13267.
4. The permitting of the discharge of waste, or proposed discharge of waste, to waters of the state through Waste Discharge Requirements (WDRs), in accordance with Article 4 of the CWC. WDRs may take the form of individual or project-specific WDRs, watershed-specific WDRs, or general WDRs that are applicable to a specific activity.
5. The authority to waive the requirements for a WDR, in accordance with CWC §13269.
6. The permitting of a discharge of waste to waters of the United States through National Pollution Discharge Elimination System (NPDES) permits, in accordance with Section 402 of the Clean Water Act and CWC §13370.
7. The certification that a proposed activity which requires a federal permit or license complies with water quality standards, in accordance with Section 401 of the Clean Water Act.

### **5.2.2 Enforcement**

Enforcement tools that may be applicable include, but are not limited to:

1. The authority to require a time schedule of specific actions to be taken, in accordance with CWC §13300.
2. The issuance of a cease and desist order, in accordance with CWC §13301.
3. The issuance of a cleanup and abatement order, in accordance with CWC §13304.

4. The authority to impose monetary liabilities or fines (administrative civil liabilities), in accordance with CWC §13268 and §13350.

Additionally, enforcement actions should be consistent with the State Water Board's *Water Quality Enforcement Policy*, adopted February 19, 2002, as SWRCB Res. No. 2002-0040, and as subsequently amended. The Enforcement Policy has been codified in 23 CCR §2910. The Enforcement Policy promotes a fair, firm, and consistent enforcement approach appropriate to the nature and severity of a violation.

### **5.3 COMPLIANCE WITH THE NON-POINT SOURCE POLICY**

The *Policy for the Implementation and Enforcement of the Nonpoint Source Pollution Control Program* was adopted by the State Water Board on May 20, 2004. As explained in the Policy, the *Plan for California's Nonpoint Source Pollution Control Program* is to be implemented and enforced through California Water Code mandates and authorities, outreach, education, technical assistance, financial incentives, and collaborative efforts with other agencies and non-governmental organizations. The Policy formally eliminates the previous "three-tiered approach" of self-determined implementation of management measures, regulatory-based encouragement, and enforcement.

The Policy states that all current and proposed non-point source discharges must be regulated under waste discharge requirements (WDRs), waivers of WDRs, a basin plan prohibition, or some combination of these administrative tools. The Scott River TMDL Action Plan is in compliance with the Policy as the implementation actions described in this Chapter regulate and address non-point sources of sediment waste loads and elevated water temperatures through WDRs, waivers of WDRs, or some combination thereof.

#### **5.3.1 Non-Point Source Pollution Control Implementation Programs and the Five Key Elements**

The Policy describes a non-point source pollution control implementation program as a program developed to comply with WDRs, waivers of WDRs, or basin plan prohibitions. In regards to the Scott River TMDL Action Plan, a non-point source pollution control implementation program may take the form of an Erosion Control Plan, a Grazing and Riparian Management Plan, WDRs, waiver of WDRs, or some combination thereof.

The Policy requires that a non-point source pollution control implementation program include five key elements as simplified in Table 5.11. The first four key elements are the responsibility of the discharger and are to be described in their Erosion Control Plan, Grazing and Riparian Management Plan, WDRs, or waiver of WDRs. The fifth key element, to make clear the potential consequences for failure to achieve a non-point source pollution control program's stated purposes, is the responsibility of the Regional Water Board. Should a program's stated purpose(s) not be attained, the Regional Water Board and staff shall take appropriate enforcement actions. Enforcement actions shall be consistent with the State Water Board's

*Water Quality Enforcement Policy* (SWRCB Resolution No. 2002-0040), adopted February 19, 2002, and as it may be amended from time to time. This enforcement policy promotes a fair, firm, and consistent enforcement approach appropriate to the nature and severity of a violation.

<b>Table 5.11</b> <b>Summary of the Five Key Elements</b> <b>of the Policy for the Implementation and Enforcement</b> <b>of the Nonpoint Source Pollution Control Program</b>	
Key Element 1	The non-point source pollution control program’s ultimate purpose shall be explicitly stated.
Key Element 2	A description of management practices and other program elements that are expected to be implemented to ensure attainment of the purpose shall be included.
Key Element 3	When it is necessary to allow time to achieve water quality requirements, a specific time schedule and milestones shall be included.
Key Element 4	Sufficient feedback mechanisms shall be included.
Key Element 5	The potential consequences for failure shall be included.