Source or Land Use Activity	Responsible Parties	Actions to Address Dissolved Oxygen and Water Temperature Impairment	Action Workplan
1) Range and Riparian Land Management	 Parties Conducting Grazing Activities Landowners and managers owning and operating property adjacent to the Shasta River and its tributaries 	 Landowner/User Actions: Landowners should employ land stewardship practices and activities that minimize, control, and preferably prevent discharges of fine sediment, nutrients and other oxygen consuming materials from affecting waters of the Shasta River and tributaries. Landowners should also employ land stewardship practices and activities that minimize, control, and preferably prevent elevated solar radiation loads from affecting waters of the Shasta River and its Class I and II tributaries. Those that oversee and manage grazing and range land activities in the Shasta River watershed should implement the applicable management measures for agriculture and grazing from the following sources: <i>Policy for the Implementation and Enforcement of the Nonpoint Source Pollution Control Program</i> (NPS Policy) (SWRCB, 2004 or as amended). <i>Shasta Watershed Restoration Plan</i> (November 1997). <i>Shasta Valley Resource Conservation District Master Incidental Take Permit</i> (ITP) <i>Application</i> (Shasta RCD 2005). <i>Recovery Strategy for California Coho Salmon</i> (Coho Recovery Strategy) (CDFG 2004). See Appendix A of this Action Plan for examples of some of these applicable measures. Landowners may need to develop and implement management measures in addition to those specified 	Short Term (2007) -send notification letter to all Shasta landowners advising them of their responsibilities under the Shasta Implementation TMDL, including requirements for: *Range and Riparian Management *Tailwater Return Flows *Water Use and Flow *Irrigation Control Structures, Flashboards, Dams, and other minor impoundments *Annual compliance reporting

Source or Land Use Activity	Responsible Parties	Actions to Address Dissolved Oxygen and Water Temperature Impairment	Action Workplan	
Range and Riparian Land Management (cont.)	 Shasta Valley Resource Conservation District (Shasta Valley RCD) Shasta Coordinated Resource Management and Planning Committee (Shasta CRMP) 	 above to address site-specific conditions. This may include determining appropriate riparian widths for tree planting activities such that the appropriate width buffer is created to ensure effective stream shading and oxygen consuming material discharge elimination. Landowners shall submit annually to the Regional Water Board a written summary of all range and riparian management actions taken to achieve compliance with water quality standards, the TMDLs, and the NPS Policy, either individually or through the Shasta Valley RCD and its CRMP or through the CDFG coho ITP. RCD Actions: The Shasta Valley RCD and its CRMP should: Assist landowners in developing and implementing management practices that minimize, control and preferably prevent discharges of fine sediment, nutrients and other oxygen consuming materials, as well as elevated solar radiation loads from affecting waters of the Shasta River and tributaries. Assist landowners in developing and implementing a monitoring program to evaluate and document implementation and effectiveness of the range and riparian management actions taken by the landowner. 	Medium Term/Ongoing (FY 07/08 and beyond) -RWB staff will review annual compliance reports and take appropriate followup action, including progressive enforcement action for nonsubmittal of reports Ongoing – as we implement specific tasks in this workplan, we will be working with the RCD and the CRMP	

 Table 4: Shasta River Dissolved Oxygen and Temperature TMDL Implementation Actions

Responsible PartiesActions to Address Dissolved Oxygen and Water Temperature Impairment	Action Workplan	
 California Department of Fish and Game (CDFG) 	 State Actions: CDFG will: Assist landowners in developing and implementing management practices that minimize, control, and, preferably prevent discharges of fine sediment, nutrients and other oxygen consuming materials, as well as elevated solar radiation loads from affecting waters of the Shasta River and tributaries. Administer the Coho Recovery Strategy and the ITP (when approved). 	Ongoing – as we implement specific tasks in this workplan, we will be working with the DFG, including participation as a member of the Scott/Shasta Coho Recovery Team
Regional Water Board	 The Regional Water Board will: Work cooperatively with the Shasta Valley RCD and its CRMP to: Provide technical support and information to individuals, landowners, and community members in the Shasta River watershed, Coordinate monitoring, educational and outreach efforts, and Develop a monitoring program to evaluate and document implementation and effectiveness of the range and riparian management actions taken by the landowners. Should efforts fail to be implemented or 	Short/Medium Term (FY 06/07 and 07/08) -Work cooperatively with RCD and CRMP to identify current conservation efforts and needs, to develop a strategy and implementation schedule to address water quality impacts associated with grazing, and to develop a monitoring plan by 2008.
	 California Department of Fish and Game (CDFG) Regional 	Parties Actions to Address Dissolved Oxygen and water Temperature Impairment • California Department of Fish and Game (CDFG) State Actions: CDFG will: Assist landowners in developing and implementing management practices that minimize, control, and, preferably prevent discharges of fine sediment, nutrients and other oxygen consuming materials, as well as elevated solar radiation loads from affecting waters of the Shasta River and tributaries. Administer the Coho Recovery Strategy and the ITP (when approved). Regional Water Board will: Work cooperatively with the Shasta Valley RCD and its CRMP to: Provide technical support and information to individuals, landowners, and community members in the Shasta River watershed, Coordinate monitoring, educational and outreach efforts, and Develop a monitoring program to evaluate and document implementation and effectiveness of the range and riparian management actions taken by the landowners.

Source or Land Use Activity	Responsible Parties	Actions to Address Dissolved Oxygen and Water Temperature Impairment	Action Workplan
Range and Riparian Land Management (cont.)		 Officer shall require, on a site specific asneeded basis, the appropriate responsible parties to develop, submit, and implement a ranch management plan designed to prevent discharges of fine sediment, nutrients and other oxygen consuming materials, as well as elevated solar radiation loads from affecting waters of the Shasta River and tributaries. The ranch management plan shall describe in detail: Locations discharging and/or with the potential to discharge nutrients and other oxygen consuming materials, and elevated solar radiation loads to watercourses which are caused by livestock grazing or related activities. How and when identified sites are to be controlled and monitored, and management practices that will be implemented to prevent and reduce future discharges of nutrients and other oxygen consuming materials, and elevated solar radiation loads to be controlled and monitored. 	-Implement progressive enforcement action on specific sites, as needed.
		Group and/or individual ranch management plans shall be implemented upon review, comment, and approval by Regional Water Board staff and their Executive Officer for compliance with water quality standards, the TMDLs, and the NPS Policy.	Short/Medium Term (FY 06/07 and 07/08) -Regional Water Board staff are currently developing a Wetland and Riparian Protection Policy to be presented to the Board for decision in late 2007.

 Table 4: Shasta River Dissolved Oxygen and Temperature TMDL Implementation Actions

Source or Land Use Activity	Responsible Parties	Actions to Address Dissolved Oxygen and Water Temperature Impairment	Action Workplan
Range and Riparian Land Management (cont.)		 In addition, the Regional Water Board shall address the removal and suppression of vegetation that provides shade to a water body through development of a Stream and Wetland System Protection Policy. This will be a comprehensive, region-wide riparian policy that will address the importance of shade on instream water temperatures and will potentially propose riparian setbacks 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. Other actions under this section may be modified for consistency with this policy, once adopted. With funding already available through a grant from the U.S. EPA, Regional Water Board staff are scheduled to develop this Policy for Regional Water Board consideration and adoption by the end of 2007. Within two years of EPA approval of the TMDL Action Plan, the Regional Water Board's Executive Officer shall report to the Regional Water Board on the status of the preparation and development of appropriate permitting actions. The Regional Water Board shall take appropriate permitting actions as necessary to address the removal and suppression of vegetation that provides shade to a water body in the Shasta River watershed. Such actions 	 -Evaluate and determine appropriate regulatory mechanism(s), based on extent of grazing and water quality impacts associated with grazing activities and the level of proactive involvement on the part of responsible parties. Medium Term (FY 08/09) -Report to Board on status of development of appropriate permitting actions. Long Term (FY 09/10 and beyond) -Present proposed permitting action(s) to the Regional Board -Oversee implementation of appropriate action(s) to ensure compliance with water quality standards within ten years of USEPA approval

 Table 4: Shasta River Dissolved Oxygen and Temperature TMDL Implementation Actions

Source or Land Use Activity	Responsible Parties	Actions to Address Dissolved Oxygen and Water Temperature Impairment	Action Workplan
		 may include, but are not limited to, prohibitions, 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 prohibitions, waivers or WDRs be developed, they may apply to the entire North Coast Region or just to the Shasta River watershed. Within ten years of EPA approval of the TMDL, all identified discharges associated with riparian land use activities shall be in compliance with water quality standards, the TMDLs, and the NPS Policy. 	
2) Tailwater Return Flows	Irrigators	Landowner Actions: Those that oversee and manage tailwater discharges from irrigated lands in the Shasta River watershed, which may include landowners, lessees, and land managers (collectively referred to as irrigators), should employ land stewardship and irrigation management practices and activities that minimize, control, and preferably prevent discharges of fine sediment, nutrients and other oxygen consuming materials, and elevated water temperatures from affecting waters of the Shasta River and its tributaries.	Short Term (2007) -send notification letter described under Item 1, above.
Tailwater Return Flows	Irrigators (cont.)	Irrigators should implement the applicable management measures for tailwater return flows from the following sources:	

 Table 4: Shasta River Dissolved Oxygen and Temperature TMDL Implementation Actions

Source or Land Use Activity	Responsible Parties	Actions to Address Dissolved Oxygen and Water Temperature Impairment	Action Workplan
(cont.)		 Policy for the Implementation and Enforcement of the Nonpoint Source Pollution Control Program (NPS Policy) (SWRCB 2004 or as amended). Shasta Watershed Restoration Plan (November 1997). Shasta Valley Resource Conservation District Master Incidental Take Permit (ITP) Application (Shasta RCD 2005). Recovery Strategy for California Coho Salmon (Coho Recovery Strategy) (CDFG 2004). See Appendix B of this Action Plan for examples of some of these tailwater return flow measures. In addition, landowners may develop and implement management measures suitable for their site-specific conditions. 	
	Shasta Valley	Irrigators should submit annually to the Regional Water Board a written summary of all tailwater return flow management actions taken to help achieve compliance with water quality standards, the TMDLs, and the NPS Policy, either individually or through the Shasta Valley RCD and its CRMP or through the CDFG coho ITP. RCD Actions: The Shasta Valley RCD and its CRMP should:	Medium Term/Ongoing (FY 07/08 and beyond) -RWB staff will provide guidance regarding reporting requirements. -RWB staff will review annual compliance reports and take appropriate followup action, including progressive enforcement action for nonsubmittal of reports
Tailwater Return Flows	Shasta CRMP	 Assist irrigators in developing and implementing management practices that minimize, control and preferably prevent discharges of fine sediment, nutrients and other oxygen consuming materials, and elevated water temperatures from affecting 	Ongoing – as we implement specific tasks in this workplan, we will be working with the RCD on appropriate actions.

 Table 4: Shasta River Dissolved Oxygen and Temperature TMDL Implementation Actions

Source or Land Use Activity	Responsible Parties	Actions to Address Dissolved Oxygen and Water Temperature Impairment	Action Workplan
(cont.)		 waters of the Shasta River and its tributaries. Implement the recommended actions specified in the Shasta Watershed Restoration Plan, Coho Recovery Strategy and the ITP (when approved). Assist irrigators in developing and implementing a monitoring program to evaluate and document implementation and effectiveness of the tailwater management actions taken by the irrigators. 	
	• CDFG	 State Actions: CDFG will: Assist irrigators in developing and implementing management practices that minimize, control, and preferably prevent discharges of fine sediment, nutrients and other oxygen consuming materials, and elevated water temperatures from affecting waters of the Shasta River and its tributaries. Administer the Coho Recovery Strategy and the ITP (when approved). 	Ongoing – as we implement specific tasks in this workplan, we will be working with the DFG, including participating as a member of the Coho Recovery Team.
Tailwater Return Flows	 Regional Water Board Regional Water Board (cont.) 	 Regional Water Board will: Work with the Shasta Valley RCD and its CRMP to develop a monitoring program to evaluate and document implementation and effectiveness of the tailwater management actions taken by the irrigators. Evaluate the effectiveness of tailwater management actions and develop recommendations 	-Short/Medium Term (FY 06/07 and 07/08) -Work cooperatively with RCD and CRMP to develop a monitoring program -Medium Term (FY 07/08 and 08/09) Evaluate effectiveness and develop recommendations to achieve compliance.

Table 4: Shasta River Dissolved	Oxygen and	Temperature	TMDL Implementation Actions

Source or Land Use Activity	Responsible Parties	Actions to Address Dissolved Oxygen and Water Temperature Impairment	Action Workplan
(cont.)		for the most effective regulatory vehicle to bring tailwater discharges into compliance with water quality standards, the TMDLs, and the NPS Policy.	-Manage grant for Shasta Valley Water Users' Association tailwater return flow project -Ongoing
		• Should efforts fail to be implemented or effective, the Regional Water Board's Executive Officer may require irrigators, on a site specific as-needed basis, to develop, submit, and implement, upon review, comment and approval by the Regional Water Board's Executive Officer, a tailwater management plan designed to prevent discharges of fine sediment, nutrients and other oxygen consuming materials and elevated solar radiation loads from affecting waters of the Shasta River and its tributaries.	As needed require irrigators to submit and implement tailwater management plans on a site-specific basis.
		• Within one year of EPA approval of the TMDL, the Regional Water Board's Executive Officer shall report to the Regional Water Board on the status of the preparation and development of appropriate permitting actions to bring the discharge into compliance with water quality standards, the TMDLs, and the NPS Policy.	Medium Term (FY 08/09) -Report to Board on status of development of appropriate permitting actions.
		• Within five years of EPA approval of the TMDL and based on Regional Water Board staff recommendation(s) derived from the evaluation phase for tailwater management, the Regional Water Board shall adopt prohibitions, WDRs, waivers of WDRs, or any combination, thereof, as appropriate.	Long Term (FY 12/13 and beyond) -Present proposed permitting action(s) to the Regional Board
Tailwater Return Flows		 Within ten years of EPA approval of the TMDL, the discharge of all tailwater return flow shall be in 	-Oversee implementation of appropriate action(s) to ensure compliance with water quality standards, the TMDL, and

 Table 4: Shasta River Dissolved Oxygen and Temperature TMDL Implementation Actions

Source or Land Use Activity	Responsible Parties	Actions to Address Dissolved Oxygen and Water Temperature Impairment	Action Workplan
(cont.)		compliance with water quality standards, the TMDLs and the NPS Policy.	NPS policy within ten years of USEPA approval
3) Water Use and Flow	Water Diverters	 Water Diverter(s) Actions: Water diverters should employ water management practices and activities that result in increased dedicated cold water instream flow in the Shasta River and its tributaries. Water diverters should participate in and implement applicable flow-related measures outlined in the following sources: Policy for the Implementation and Enforcement of the Nonpoint Source Pollution Control Program (NPS Policy) (SWRCB 2004 or as amended). Shasta Watershed Restoration Plan (November 1997). Shasta Valley Resource Conservation District Master Incidental Take Permit (ITP) Application (Shasta RCD 2005). Recovery Strategy for California Coho Salmon (Coho Recovery Strategy) (CDFG 2004). 	Short Term (2007) -send notification letter described under Item 1, above.
Water Use and Flow		See Appendix C of this Action Plan for examples of flow related measures.	

Table 4: Shasta River Dissolved Oxygen and	Temperature TMDL Implementation Actions
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Source or Land Use Activity	Responsible Parties	Actions to Address Dissolved Oxygen and Water Temperature Impairment	Action Workplan
(cont.)			
	Water Diverters (cont.)	In addition, landowners may develop and implement management measures suitable for their site-specific conditions.	
		Within two years, and again within four years, of EPA approval of the TMDL, water diverters shall report in writing to the Regional Water Board, either individually or through the Shasta Valley RCD and its CRMP, on the measures taken to increase the dedicated cold water instream flow in the Shasta River by 45 cfs or alternative flow regime that achieves the same temperature reductions from May 15 to October 15.	Short/Medium Term -RWB staff will provide guidance on reporting requirements. -RWB staff will review reports on measures taken to achieve temperature reductions, and take appropriate followup action, including progressive enforcement action for nonsubmittal of reports
		Within five years of EPA approval of the TMDL, water diverters shall provide a final report to the Regional Water Board, either individually or through the Shasta Valley RCD and its CRMP, on documenting dedicated cold water instream flow in the Shasta River in relation to the 45 cfs goal or alternative flow regime that achieves the same temperature reductions from May 15 to October 15.	Medium Term -RWB staff will review final report documenting measures taken to achieve temperature reductions, and take appropriate followup action, including progressive enforcement action for nonsubmittal of reports.
		This recommended flow measure does not alter or reallocate water rights in the Shasta or Klamath River watersheds, nor bind the Regional Water Board in future TMDLs, the State Water Board, Division of Water Rights in any water rights decision, or state and federal courts.	
Water Use and Flow	Shasta Valley RCD	RCD Actions: The Shasta Valley RCD and its CRMP should:	

 Table 4: Shasta River Dissolved Oxygen and Temperature TMDL Implementation Actions

Source or Land Use Activity	Responsible Parties	Actions to Address Dissolved Oxygen and Water Temperature Impairment	Action Workplan
(cont.)	Shasta CRMP	 Assist water diverters in developing and implementing management practices that increase dedicated cold water instream flows in the Shasta River and tributaries. Assist water diverters in developing and implementing a monitoring program to evaluate and document implementation and effectiveness of the actions taken to increase dedicated cold water instream flows in the Shasta River. 	
	• CDFG	 State Actions: CDFG will: Assist water diverters in developing and implementing management practices that increase dedicated cold water instream flows in the Shasta River and tributaries. Administer the Coho Recovery Strategy and the ITP (when approved). Assist in developing and implementing a monitoring program to evaluate and document implementation and effectiveness of the actions taken by the water diverters to increase dedicated 	
Water Use and Flow	 Department of Water Resources 	 cold water instream flows in the Shasta River. DWR should: Coordinate and assist water diverters in developing and implementing a monitoring 	

 Table 4: Shasta River Dissolved Oxygen and Temperature TMDL Implementation Actions

Source or Land Use Activity	Responsible Parties	Actions to Address Dissolved Oxygen and Water Temperature Impairment	Action Workplan
(cont.)	(DWR)	program through a watermaster service to evaluate and document implementation and effectiveness of the actions taken by the water diverters to increase dedicated cold water instream flows in the Shasta River.	
	 Regional Water Board 	 The Regional Water Board will: Work cooperatively with water diverters, the Shasta Valley RCD, its CRMP, CDFG and DWR, wholly or in part, to establish monitoring and reporting programs to gauge implementation and effectiveness of the actions taken by responsible parties. 	Short/Medium Term (06/07 through 11/12) -Work cooperatively with RCD, CRMP, CDFG, and/or DWR to establish implementation and effectiveness monitoring programs. Ongoing
		• If the Executive Officer receives credible evidence that the Shasta River flows are diminishing, the Executive Officer shall promptly report this to the Regional and State Water Board.	-advise the State and Regional Board at any time if credible evidence shows that seasonal Shasta River flows are diminishing over time. Medium Term (FY 11/12)
Water Use and	State Water Resources Control Board (State Water Board)	• If after five years, the Regional Water Board's Executive Officer finds that the above-measures have failed to be implemented or are otherwise ineffective, the Regional Water Board may recommend that the State Water Board consider seeking modifications to the decree (<i>In re</i> Waters of Shasta River and its Tributaries, No. 7035 (Super. Ct. Siskiyou County Dec.29, 1932)), conducting proceedings under the public trust doctrine, and/or conducting proceedings under the waste and unreasonable use provisions of the	-Assess implementation and effectiveness of temperature reduction measures, including dedicated coldwater instream flow, and identify and present to the Regional Water Board recommendations regarding appropriate followup action, including but not limited to recommending that the State Water Board modify decree No. 7035.
Flow		waste and unreasonable use provisions of the California Constitution and the California Water	

Source or Land Use Activity	Responsible Parties	Actions to Address Dissolved Oxygen and Water Temperature Impairment	Action Workplan
(cont.)		Code.	
4) Irrigation Control Structures, Flashboard Dams, and other minor impoundments (Collectively referred to as minor impoundments)	 Individual Irrigators Irrigation Districts DWR Others owning, operating, managing, or anticipating construction of minor impoundments Shasta Valley RCD 	 Irrigator(s) Actions: Irrigation districts, individual irrigators, and others that own, operate, manage, or anticipate construction of instream minor impoundments, or other structures capable of blocking, impounding, or otherwise impeding the free flow of water in the Shasta River system shall comply with one or more of the following measures: Permanently remove minor impoundments in the Shasta River mainstem. Re-engineer existing impoundments to decrease surface area of impoundments unless they can be shown to have positive effects to the beneficial uses of water relative to water quality compliance and the support of beneficial uses, including the salmonid fishery, in the Shasta Valley. Within one year of EPA approval of the TMDL, report in writing to the Regional Water Board methods and management practices they shall implement that will reduce sediment oxygen demand rates by 50% from baseline behind all minor impoundments. 	Short Term (2007) -send notification letter described under Item 1, above, including guidance on reporting requirements. Short/Medium Term -RWB staff will review reports on measures taken to reduce sediment oxygen demand rates, and take appropriate followup action, including progressive enforcement action for nonsubmittal of reports.
	Shasta CRMP	design work for compliance with water quality	

Source or Land Use Activity	Responsible Parties	Actions to Address Dissolved Oxygen and Water Temperature Impairment	Action Workplan
Minor impoundments		standards, the TMDLs, and the NPS Policy.	
(cont.)		 Implement the recommended actions specified in the Shasta Watershed Restoration Plan and the ITP (when approved). 	
		• Assist in developing and implementing a monitoring program to evaluate and document implementation and effectiveness of the actions taken to remove, re-engineer or limit construction of minor impoundments on the mainstem Shasta River.	
	• CDFG	 State Actions: CDFG will: Assist in developing and implementing removal, re-engineering or limitation on the construction of minor impoundments in the Shasta River mainstem. 	
		• Administer the Coho Recovery Strategy and the ITP (when approved).	
		• Assist in the development and implementation of a monitoring program to evaluate and document implementation and effectiveness of the actions taken to remove, re-engineer or limit construction of minor impoundments on the mainstem Shasta River.	Short/Medium Term (06/07 through
	 Regional Water Board 	 The Regional Water Board will: Work with CDFG to establish monitoring and reporting elements of their programs in order to gage 	11/12) -Work cooperatively with RCD, CRMP, and CDFG to establish implementation

 Table 4: Shasta River Dissolved Oxygen and Temperature TMDL Implementation Actions

Source or Land Use Activity	Responsible Parties	Actions to Address Dissolved Oxygen and Water Temperature Impairment	Action Workplan
Minor impoundments (cont.)		 their effectiveness. Work with the Shasta Valley RCD and its CRMP to establish monitoring and reporting programs to gage the implementation and effectiveness of the Shasta Watershed Restoration Plan. Include appropriate conditions in Clean Water Act water quality certification permits for minor impoundment removal or re-engineering activities that comply with water quality standards, the TMDL, and the NPS Policy. 	and/or effectiveness monitoring programs. -Manage grant for Araujo dam demobilization project. Ongoing -As 401 WQ certifications are developed for minor impoundments, Regional Water Board staff will include appropriate conditions.
5) Dwinnell Dam	 Montague Water Conservation District (MWCD) 	Within 2 years of EPA approval of the TMDL, the MWCD shall report in writing to the Regional Water Board on a plan to bring the discharge from Dwinnell Dam into compliance with water quality standards, the TMDLs, and the NPS Policy.	Medium Term (09/10) -RWB staff will review the MWCD's plan and provide feedback. Staff will recommend appropriate followup action to the RWB; this may include progressive enforcement action for nonsubmittal of the required plan
6) Lake Shastina	 MWCD City of Weed County of Siskiyou Caltrans Communiti es of Lake 	 Within 2 years of EPA approval of the TMDL, the responsible parties shall complete a study of water quality conditions and factors affecting water quality conditions in Lake Shastina, and develop a plan for addressing factors affecting water quality conditions to bring Lake Shastina into compliance with water quality standards, the TMDLs, and the NPS Policy. The study and plan shall be submitted to the Regional Water Board Executive Officer for review, comment and approval. Within 5 years of EPA approval of the TMDL, the responsible parties shall begin implementing the 	Medium Term (09/10) -RWB staff will review and comment on the study and plan and provide feedback. Staff will recommend appropriate followup action to the RWB; this may include progressive enforcement action for nonsubmittal of the required study and plan. Long Term (12/13 and beyond) -RWB staff will review implementation of the plan and identify and recommend

 Table 4: Shasta River Dissolved Oxygen and Temperature TMDL Implementation Actions

Source or Land Use Activity	Responsible Parties	Actions to Address Dissolved Oxygen and Water Temperature Impairment	Action Workplan
Lake Shastina (cont.)	Shastina U.S. Forest Service (USFS) U.S. Bureau of Land Management (BLM) Private timberland owners 	plan. (See above)	to the Regional Water Board appropriate followup action(s).
7) City of Yreka Wastewater Treatment Facility (Yreka WWTF)	 City of Yreka Regional Water Board 	 Yreka Wastewater Treatment Facility Actions: The Yreka WWTF shall comply with existing Regional Water Board Orders and Monitoring and Reporting Programs. Regional Water Board Actions: The Regional Water Board will: Pursue aggressive compliance with Order No 96-69, and CAO No.R1-2004-0037. Continue vigorous oversight and enforcement of Monitoring and Reporting Program No. R1-2003- 0047 to ensure timely submittal of sampling and analytical results from the operators of the Yreka WWTF. 	Ongoing -pursue aggressive compliance with WDRs and CAO -Continue vigorous oversight and enforcement of Monitoring and Reporting Program No. R1-2003-0047, and any future Orders and Monitoring and Reporting Programs.

 Table 4: Shasta River Dissolved Oxygen and Temperature TMDL Implementation Actions

Source or Land Use Activity	Responsible Parties	Actions to Address Dissolved Oxygen and Water Temperature Impairment	Action Workplan
8) Urban and Suburban Runoff Urban and Suburban Runoff (cont.)	 City of Yreka City of Weed City of Montague Community of Edgewood 	Actions: The cities of Yreka, Weed, Montague, the communities of Lake Shastina, and other landowners with suburban runoff should identify possible pollutants, their sources, and volumes of polluted runoff from urban and suburban sources within their spheres of influence that may discharge, directly or indirectly, to waters of the Shasta River watershed. Cities and other landowners with suburban runoff should implement the applicable measures from the NPS	
	 Communiti es of Lake Shastina Other landowners with suburban runoff 	 Policy. See Appendix D of this Action Plan for examples of some of these applicable measures. Within two years of EPA approval of the TMDL, cities and landowners with suburban runoff shall develop a plan to minimize, control, and preferably prevent discharges of fine sediment, nutrients and other oxygen consuming materials and elevated temperature waste discharge from affecting waters of the Shasta River and its tributaries. The plan shall be submitted to the Regional Water Board's Executive Officer for review, comment and approval. Within 5 years of EPA approval of the TMDL, cities and landowners with suburban runoff shall begin implementing the plan. 	Medium Term (09/10) -RWB staff will provide guidance regarding reporting requirements -RWB staff will review and comment on the plans, and take appropriate followup action, including progressive enforcement action for nonsubmittal of the required plans. Long Term (12/13 and beyond) -RWB staff will review implementation of the plans and identify and recommend to the Regional Water Board appropriate followup action(s).
	 Regional Water Board 	 State Actions: The Regional Water Board will: Work cooperatively with responsible parties to implement their plan, including appropriate 	Ongoing -work cooperatively with various cities and communities in their TMDL compliance efforts.

Source or Land Use Activity	Responsible Parties	Actions to Address Dissolved Oxygen and Water Temperature Impairment	Action Workplan
		management measures and reasonable time schedules which minimize, control, and preferably prevent discharges of fine sediment, nutrients and other oxygen consuming materials and elevated temperature waste discharge from affecting waters of the Shasta River and its tributaries.	

 Table 4: Shasta River Dissolved Oxygen and Temperature TMDL Implementation Actions

Source or Land Use Activity	Responsible Parties	Actions to Address Dissolved Oxygen and Water Temperature Impairment	Action Workplan
9) Activities on Federal Lands	USFS Regional Water Board	 USFS Actions: The USFS should consistently implement the best management practices for timber harvest activities, grazing and other activities included in the: <i>Klamath National Forest Land and Resource</i> <i>Management Plan</i> (USFS 1995) or as amended as long as equivalent or better water quality protections are required. Shasta-Trinity National Forest Land and Resource Management Plan (USFS 1995) or as amended as long as equivalent or better water quality protections are required. <i>Water Quality Management for Forest System</i> <i>Lands in California, Best Management Practices</i> (USFS 2000) or as amended as long as equivalent or better water quality protections are required. See Appendix E of this Action Plan for some examples of these measures. Regional Water Board Actions: The Regional Water Board will: Continue its involvement with the USFS to periodically reassess the mutually agreed upon goals of the 1981 Management Agency Agreement between the SWRCB and the USFS. 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 of the USFS within two years of EPA approval of the TMDL. The MOU shall include, in part, buffer width requirements and other management practices as detailed in Appendix E. 	Ongoing -meet periodically with USFS Short/Medium Term (07/08 through 09/10) -work cooperatively with USFS to develop MOU.

 Table 4: Shasta River Dissolved Oxygen and Temperature TMDL Implementation Actions

Source or Land Use Activity	Responsible Parties	Actions to Address Dissolved Oxygen and Water Temperature Impairment	Action Workplan
			Medium/Long Term (09/10 and beyond) finalize MOU with USFS or, if unable to reach agreement, make recommendations to the Regional Board as to possible regulatory action(s) -Implement adopted action(s) and/or periodically assess compliance with and effectiveness of MOU measures; recommend revisions as necessary.
	• BLM	 BLM Actions: BLM shall implement best management grazing strategies that are detailed in a joint management agency document titled: <i>Riparian Management, TR 1737-14, Grazing Management for Riparian-Wetland Areas, USDI-BLM, USDA-FS (1997).</i> See Appendix F of this Action Plan for some examples of these measures. 	Short/Medium Term (07/08 through 09/10) -RWB staff will work cooperatively with BLM to develop MOU Medium/Long Term (09/10 and beyond) finalize MOU with BLM or, if unable to reach agreement, make recommendations to the Regional
	• Regional Water Board	Regional Water Board Actions: The Regional Water Board will 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 of the BLM within two years of EPA approval of the TMDL. The MOU shall include buffer width requirements and other management practices as detailed in Appendix F of this Action Plan.	Board as to possible regulatory action(s) -Implement adopted action(s) and/or periodically assess compliance with and effectiveness of MOU measures; recommend revisions as necessary.

Source or Land Use Activity	Responsible Parties	Actions to Address Dissolved Oxygen and Water Temperature Impairment	Action Workplan
10) Timber Harvest Activities on Non-Federal Lands	Private Parties Conducting Timber Harvest Activities	Timber Harvest Related Actions: Parties conducting timber harvest activities should employ land stewardship practices that minimize, control, and preferably prevent discharges of fine sediment, nutrients and other oxygen consuming materials from affecting waters of the Shasta River and tributaries. Landowners should also employ land stewardship practices and activities that minimize, control, and preferably prevent elevated solar radiation loads from affecting waters of the Shasta River and its Class I and II tributaries. State Actions:	
	• California Department of Forestry (CDF)	CDF will: Ensure timber operations in the Shasta River watershed are in compliance with the water quality standards, the TMDLs, and NPS Policy.	
		Regional Water Board Actions:	
		The Regional Water Board shall use appropriate	

 Table 4: Shasta River Dissolved Oxygen and Temperature TMDL Implementation Actions

Source or Land Use Activity	Responsible Parties	Actions to Address Dissolved Oxygen and Water Temperature Impairment	Action Workplan
Timber Harvest Activities on Non-Federal Lands (cont.)	• Regional Water Board	 permitting and enforcement tools to regulate discharges from timber harvest activities in the Shasta River watershed, including, but not limited to: Participation in the CDF timber harvest review and approval process. Use of general or specific WDRs and waivers of WDRs if applicable, to regulate timber harvest activities on private lands in the Shasta River watershed. Timber harvest activities on private lands in the Shasta River watershed are not eligible for Categorical Waiver C included in the Categorical Waiver of Waste Discharge Requirements for Discharges Related to Timber Harvest Activities on Non-Federal Lands in the North Coast Region (Order No. R1-2004-0016) simply through the adoption of this TMDL Action Plan. However, timber harvest activities on private lands in the Shasta River watershed may be eligible for Categorical Waivers A, B, D, E, and F, as appropriate. If the California Forest Practice Rules (Title 14 CCR Chapters 4, 4.5 and 10) are changed in a manner that reduces water quality protections, the Regional Water Board shall require plan submitters to maintain the level of water quality protection provided by the 2006 Forest Practice Rules. 	Short Term (06/07) -Notify CDF and private parties with current THPs as to the requirements under the Shasta TMDL -Meet with Timber Division staff to develop common understanding of TMDL results and applications, and to transfer information and tools developed during the TMDL process. Short/Mid Term (06/07 and beyond) -participate with Timber staff in HCP process(es) Mid/Long Term (07/08 and beyond) -Periodically meet with Timber division staff to discuss TMDL implementation on timber lands and fine tune efforts as necessary.

 Table 4: Shasta River Dissolved Oxygen and Temperature TMDL Implementation Actions

Source or Land Use Activity	Responsible Parties	Actions to Address Dissolved Oxygen and Water Temperature Impairment	Action Workplan
		See Appendix G of this Action Plan for select examples of 2006 Forest Practice Rules.	
11)California Department of Transportation Activities (Caltrans)	 Caltrans Regional Water Board 	 Caltrans Actions: Caltrans shall implement the requirements of its stormwater program. Regional Water Board Actions: Regional Water Board shall: Within two years of EPA approval of the TMDL, complete an initial evaluation of the Caltrans Stormwater Program. After the initial two-year evaluation is completed, the Regional Water Board shall continue periodic reviews of the program to assure ongoing compliance. 	Medium Term (09/10) -Regional Water Board staff will review and comment on Caltrans' initial evaluation and develop and take appropriate followup action(s). Medium/Long Term (09/10 and beyond) -Regional Water Board staff will review Caltrans' stormwater program periodically to assure ongoing compliance and will identify and take appropriate followup action. Staff will also incorporate appropriate TMDL compliance language into Caltrans' stormwater permit when it is next up for renewal.

Table 4: Shasta River Dissolved Oxygen and Temperature TMDL Implem	entation Actions
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