

Regional Water Quality Control Board
North Coast Region

Executive Officer's Summary Report
Thursday, June 19, 2014
Regional Water Board Office
Santa Rosa, California

- ITEM: 6
- SUBJECT: Discussion with Board Members on Draft Elk River Total Maximum Daily Load (*Alydda Mangelsdorf*)
- BOARD ACTION: This is an Informational Item. The Board is being asked to provide feedback to staff on several policy questions associated with the development of a program of implementation for the Total Maximum Daily Load (TMDL) for sediment for the Upper Elk River watershed. These questions were most recently raised at the May 7, 2014 Regional Water Board workshop in Fortuna, CA.
- BACKGROUND: The Clean Water Act requires that the total maximum daily load of a pollutant causing impairment "shall be established at a level necessary to implement the applicable water quality standards with seasonal variations and a margin of safety which takes into account any lack of knowledge concerning the relationship between effluent limitations and water quality." To this end, a sediment TMDL for the Upper Elk River watershed has been drafted. The TMDL uses the best science available at the time of the assessment and includes several conservative assumptions which serve as an implicit margin of safety to ensure protection of the resource as required under law. The draft Upper Elk River Watershed Total Maximum Daily Load for Sediment (TMDL) staff report has been released for scientific peer review, as well as review by interested stakeholders; and, responses to peer review comments have been composed. Scientific peer reviewers generally supported the scientific methods and conclusions as described in the draft staff report. However, not all stakeholder comments indicated support for the scientific methods and conclusions as described. The entire peer review draft TMDL package has been made publicly available on the Regional Water Board's website, as have public comments received on the peer review draft staff report. Staff are in the process of making revisions to the staff report in response to peer reviewer and stakeholder comments, including a more detailed chapter describing the program of implementation and monitoring associated with the TMDL.
- As part of a single TMDL/WDR adoption package, staff are concurrently developing a draft Waste Discharge Requirements (WDR) permit for timberlands in the Upper Elk River watershed as the implementing regulatory vehicle for the TMDL. On May 7, 2014, the Regional Water Board held a workshop on the subject of the draft

TMDL and WDR. Due to time limitations, the Board was unable to provide feedback on several policy questions associated with the TMDL and WDR.

DISCUSSION:

Staff will provide a short presentation at the June 19, 2014 Board meeting to update the Board on outreach efforts since the May 7 Workshop and to reiterate the policy questions for which staff are seeking Board member discussion and feedback. As the decision makers, the Board is responsible for protecting public health and safety as it relates to the degradation of water quality. It does this by establishing a program for the attainment of water quality standards and abatement of nuisance conditions. Within such a program, the Board must manage the environmental risks in both the short- and long-term, considering all the relevant environmental, social, economic, tangible and intangible factors. Staff is seeking input from the Board on key policy issues relevant to the manner in which the short- and long-term human health and environmental risks are managed.

1. SENSITIVE AREAS, TRIBUTARY-STORED SEDIMENT, and CUMULATIVE IMPACTS – The Upper Elk River watershed has a unique natural vulnerability to erosion due to the predominance of unconsolidated, fine-grained geology. With temporally and spatially variable impact, landuse activities have resulted in the delivery of sediment from the hillslope to locations throughout the stream channel network. Impacts associated with instream sediment storage in the depositional reach extending just above and below the confluence of the North Fork and South Fork Elk River are most notable. Given the ongoing discharge of sediment from existing landuse activities and the remobilization of sediment delivered to tributary channels from past landuse activities, both of which contribute to elevated suspended sediment concentrations, sediment loading, and aggradation in the impacted reach, do Board members have input regarding:

- a) updated permit provisions to protect sensitive areas with an elevated potential to discharge sediment,
- b) stabilization of excess tributary-stored sediment, and/or
- c) landscape-wide landuse limitations designed to control cumulative impacts?

Examples of protection for sensitive areas include: updated permit provisions for canopy retention to protect streams from increased peak flows and sediment discharges and to support riparian and slope stabilization processes. Methods to stabilize excess tributary-stored sediment could include large woody debris installations and control of landuse-induced elevated peak flows. Landscape-wide landuse limitations designed to control cumulative impacts include, but may

not be limited to, an alteration to the existing caps on the rate of timber harvest.

2. PRIVATE INVESTMENT IN RECOVERY ACTIONS - Sediment remediation in the impacted reach of the Elk River is fundamentally important to: a) the system's ecological rehabilitation (including recovery of its hydrologic function), and b) the protection of residents from nuisance conditions. Approval of a sediment TMDL requires reasonable assurance that water quality objectives will be achieved in a timely manner. It appears likely that public monies alone will be insufficient to fully fund the necessary assessment, planning and implementation of remediation work as currently contemplated. Providing reasonable assurance that the necessary remediation will be accomplished requires a clear strategy for the acquisition of adequate funds to complete the work. What are the Board members' views on private investment by the upslope timberland owners in the necessary assessment, planning and remediation work, and on soliciting private investment, whether as a cleanup requirement, as a condition of discharge (e.g., via a sediment offset mitigation program), as a voluntary action, or by other means? If as a voluntary action, do Board members have input on what mechanism(s) could provide reasonable assurance that remediation will be fully funded so as to abate public nuisance and attain water quality standards?

3. CAUTIONARY APPROACH, ADAPTIVE MANAGEMENT - Given the inherent uncertainty associated with: a) the quantification of a system's assimilative capacity for sediment under variable climatic conditions, b) sediment source loading rates of past, present, and future management actions, and c) the interaction of sediment loading and instream response, what are the Board members' thoughts on strategies that best balance public health and environmental risk with the social, economic and other relevant factors in both the short- and long-term? Considerations include:

- a. Ongoing cumulative watershed effects as indicated by the documented continued aggradation in the impacted reach, with associated impacts to drinking water supplies, property use and value, and public health and safety;
- b. Continued sediment discharges from the hillslope and tributaries despite:
 - i. The current improved timber harvest and road management practices as compared to the practices under which the majority of the sediment in the impacted reach was first deposited and excess sediment was deposited in tributary channels;

- ii. The removal, stabilization and control of numerous inventoried sediment discharge sites over the last decade, including instream sediment sites such as road crossings;
- iii. Existing limits on timber harvest rate;
- c. The varying ease or difficulty and associated timeline for controlling the discharge of existing hillslope sediment sources and remobilization of past sediment discharges now stored in tributary channels;
- d. The challenges, costs and estimated timeframe for assessment, planning, remediation and maintenance of the impacted reach;
- e. Our ability to employ tools such as coordinated monitoring, adaptive management and watershed stewardship to reduce land management restrictions in the future as: i) data gaps are filled, ii) uncertainties are reduced, iii) a reduction in environmental and public health risk is demonstrated, and iv) broader stakeholder buy-in is achieved.

Associated with this question is to what extent reductions in sediment discharge can be accomplished through implementation of the *existing* Waste Discharge Requirements for Humboldt Redwood Company and Green Diamond Resource Company as well as through use of our other existing authorities. In this context, what are the Board members' views on the use of the draft TMDL staff report, other draft analyses of the Upper Elk River watershed, or use only of published final reports and peer reviewed scientific papers when reviewing timber harvest plans for enrollment in these existing WDRs?

**SIGNIFICANT
CHANGES:**

There have been no significant changes since the May 7, 2014 Regional Water Board workshop.

**SUPPORTING
DOCUMENTS:**

Elk River TMDL website

http://www.waterboards.ca.gov/northcoast/water_issues/programs/tmdls/elk_river/