Sustainable Conservation

November 3, 2006

John Robertus, Executive Officer
Craig Carlisle, Senior Engineering Geologist
Benjamin Tobler, WRC Engineer

California Regional Water Quality Control Board
San Diego Region
9174 Sky Park Court, Suite 100
San Diego, CA 92123-4340

Dear Mssrs. Robertus, Carlisle, and Tobler,

As the facilitator of the Brake Pad Partnership, it has come to my attention that the Total Maximum Daily Load (TMDL) for Copper, Lead, and Zinc in Chollas Creek, Tributary to San Diego Bay, which is due to be approved by the San Diego Regional Water Quality Control Board on November 10, has important relevance to the work of the Brake Pad Partnership. I would like to convey two important concerns I have regarding the copper portion of the proposed TMDL. My first concern is that the implementation plan as currently written will encourage San Diego stormwater managers to take actions that would undermine the work of the Brake Pad Partnership, which provides an important benefit to the State of California. My second concern is that the implementation plan as currently written does not allow for adaptive implementation, which would allow Regional Water Quality Control Boards and stormwater managers to respond to new information that the Brake Pad Partnership is currently developing.

The Brake Pad Partnership

The Brake Pad Partnership is a multi-stakeholder effort to understand and address as necessary the impacts on stormwater and surface water quality that may arise from brake pad wear debris generated in the use of passenger vehicles. Since 1997, brake pad manufacturers, water quality regulators, stormwater managers, and environmental groups have been working together to evaluate the potential impacts of copper from brake pads on water quality in the San Francisco Bay.

The collaborative nature of the Partnership is grounded in several key foundational commitments: (1) brake pad manufacturers have committed to introducing new products, which would be available to all of California and the Nation, if the Brake Pad Partnership determines that brake pad wear debris is a significant source of copper to the Bay; (2) regardless of the Partnership's findings with respect to copper, brake pad manufacturers have committed to incorporating the evaluation approach developed by the Partnership into their existing practices for designing products that are safe for the environment while still meeting the performance requirements demanded of these important safety-related products; and (3) all stakeholders have agreed to work collaboratively within the Partnership, and to not

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simultaneously sponsor, pursue, or promote legislative or legal action relating to brake pads, prior to the completion of the Partnership's technical studies and resultant action plan.

Technical Studies Currently Underway

The Brake Pad Partnership is now conducting the technical studies needed to understand the role of copper from automobile brake pad wear debris on stormwater and surface water quality. These technical studies are supported by a State Water Resources Control Board Coastal Nonpoint Source Pollution Control Program Grant, pursuant to the Costa-Machado Water Act of 2000 (Proposition 13), and a grant that is currently pending from the California Department of Transportation (Caltrans). These grants support the Partnership's effort to carry out a set of interlinked laboratory, environmental monitoring, and environmental modeling studies to understand the fate and transport of copper from automobile brake wear debris in the environment. The Partnership initiated work on these studies in October 2003 and plans to complete them in December 2007, and will be followed immediately by the development and implementation of an action plan in early 2008.

Need for Incorporation of the Brake Pad Partnership into the Proposed TMDL Implementation Plan

As currently written, the implementation plan will encourage San Diego stormwater managers to take actions that could jeopardize the beneficial contributions of the Brake Pad Partnership in developing sound and effective strategies for addressing copper in brake pads as a source of copper in stormwater. Specifically, the pursuit of legislative or legal actions relative to brake pads and stormwater quality prior to the completion of the Brake Pad Partnership's work could likely lead to the collapse of the collaborative effort that has made our successes to date possible.[1] The result would be the abandonment of the current technical effort and loss of critical information, as well as the loss of important copper usage data that is made publicly available from brake pad manufacturers through the Brake Pad Partnership.

As an alternative, I recommend that the TMDL implementation plan be revised to specifically include the Brake Pad Partnership, and to encourage San Diego stormwater agencies to work in partnership with the brake pad manufacturing industry. This is the strategy that the San Francisco Bay RWQCB (Region 2) is taking with its permittees. The Brake Pad Partnership is a component of the implementation plans for addressing copper impairment listings in the San Francisco Bay Area. In June 2002, Region 2 promulgated site-specific objectives for dissolved copper in the San Francisco Bay south of Dumbarton Bridge and established requirements that local stormwater managers and point source dischargers implement a set of actions to prevent increases in dissolved copper concentrations.[2] The implementation actions are contained in the *Copper Action Plan*,[3] and have subsequently been incorporated into

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[1] Information on the Brake Pad Partnership and its technical results to date are available on our website at: http://www.sfei.org/brakepad/index.asp. The "Documents" page contains all of our most current technical reports and the "Technical Reference Library" contains a compilation of abstracts of scientific and engineering publications relating to the transport and fate of copper from brake pad wear debris in the environment. Hard copies of these publications are available at the US Environmental Protection Library in San Francisco.

[2] San Francisco Bay Regional Water Quality Control Board (SFBRWQCB) 2002. Staff Report on Proposed Site-Specific Water Quality Objectives and Water Quality Attainment Strategy for Copper and Nickel for San Francisco Bay South of the Dumbarton Bridge. Prepared by Richard Looker, May 15, 2002.

[3] Tetra Tech, Inc., Ross & Associates Environmental Consulting, Ltd., and EOA, Inc. 2000. Copper Action Plan, Final Report, June 2000. Prepared for the City of San Jose.

discharge permits as appropriate. With regard to copper from automobile brake wear debris, discharger "support" of the Brake Pad Partnership is included as a baseline action for the copper control strategy.

As a part of addressing the impairment listings for copper in the San Francisco Bay North of the Dumbarton Bridge, Region 2 is developing site-specific objectives for copper and a Bay-wide implementation plan supporting those objectives. The implementation plan will contain required actions for wastewater sources, shoreline activities, and for urban runoff management agencies. Region 2 is already developing permit provisions for urban runoff programs that will be consistent with the implementation plan for the copper objectives. These permit provisions address industrial copper sources, architectural and pesticidal uses of copper, and automobile brake pads. It is anticipated that these permit provisions will state that urban runoff management agencies have an affirmative responsibility to avoid or minimize the release of copper by controlling all sources in their program areas. However, it is also anticipated that the provisions will recognize that the Brake Pad Partnership is close to completing its work. Accordingly, the permittees will be encouraged to continue to support the Partnership efforts, and participate in the development and implementation of the resultant action plan for addressing copper from brake pad sources. The permit provisions will likely call for additional control measures for copper, including copper from brake pads, but the need for these additional measures will be determined, at least in part, by the nature and extent of Partnership outcomes. The Bay Area dischargers' participation in and support of the Brake Pad Partnership, in conjunction with the Bay Area Stormwater Management Agencies Association, has been critical to the progress we have made to date.

Need for Adaptive Implementation Provisions

The results of the Brake Pad Partnership's work will provide important information regarding copper control management strategies and timelines for source control actions. I recommend that the proposed TMDL implementation plan be revised to include an adaptive implementation provision that will allow for the incorporation of new information resulting from the Brake Pad Partnership and other sources that will have implications for the most effective means of meeting the TMDL requirements.

Through the work of the Brake Pad Partnership, we have learned a tremendous amount about the transport and fate mechanisms for copper from brake pad wear debris in the environment that have important implications for stormwater management, and we are continuing to learn more through the remainder of our planned technical studies. In addition, the Brake Pad Partnership is focusing on understanding brake pad manufacturers' required timelines for technology and new product development and the deployment of new products on new vehicles (through original equipment suppliers) and used vehicles (through replacement pads). Both the technical and timing information will be critical to achieving an effective copper control strategy.

For additional information on the Brake Pad Partnership, please do not hesitate to contact me at 415-977-0380 x314 or sconnick@suscon.org. For additional background and perspective on the role the Brake Pad Partnership plays in the SF Bay RWQCB's approach to controlling copper in runoff and surface water, I encourage you to contact Richard Looker on the Board's staff at 510-622-2451 or rel@rb2.swrcb.ca.gov.

Thank you very much for the opportunity to have input on this important effort to implement the Total Maximum Daily Load (TMDL) for Copper, Lead, and Zinc in Chollas Creek.

Yours truly,

Sarah Connick, Ph.D.
Associate Director, Programs

Enclosure (BPP Update – Fall 2006)

cc: Marcia Brockbank, San Francisco Estuary Project
Geoff Brosseau, BASMAA
Michael Endicott, Sierra Club
Richard Looker, SF Bay RWQCB
Tim Merkel, representing friction material manufacturers
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Jim Pendergast, US EPA Headquarters
Bob Peters, Akebono Corp.
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Kirsten Rosselot, Process Profiles
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