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11/15/06 Bd Mtg Item  
San Gabriel River TMDL  
Deadline: 10/27/06 12pm

Matthew E. Cohen  
mcohen@rwglaw.com

October 27, 2006

**VIA E-MAIL AND U.S. MAIL**

Song Her  
Clerk to the Board  
State Water Resources Control Board  
1001 I Street  
Sacramento, CA 95814



Re: Comment Letter – San Gabriel River Metals TMDL

Dear Ms. Her:

The Cities of Artesia, La Mirada, and Norwalk (“Cities”) appreciate this opportunity to comment on the Proposed Amendment to the Water Quality Control Plan for the Los Angeles Region Incorporating the San Gabriel River and Impaired Tributaries Metals and Selenium Total Maximum Daily Load (“Metals TMDL”). As discussed in our June 19, 2006 letter, the City has serious concerns regarding the Metals TMDL. These concerns were not fully addressed or resolved by the Regional Board prior to its adoption of the Metals TMDL. Rather than restate those arguments in this letter, the Cities are attaching their June 19, 2006 comment letter for the purpose of reasserting the arguments before the State Board. *See Attachment “A.”*

In addition, the Cities would like to raise the following points:

**A. Atmospheric Deposition**

The Regional Board’s staff report clearly states that atmospheric deposition is almost certainly the largest source of metals in urban runoff. The report cites recent studies (Sabin et al.) which reveal that 57% to 100% of the metals found in urban runoff at one study site were attributed to atmospheric deposition (copper in brakes, zinc in tires, etc.).

The problem with holding alleged cities responsible for aerial deposition is that it often originates far from the responsible cities’ jurisdictional boundaries. For example, according to recent news reports, **the United States Environmental Protection Agency estimates that nearly 25 percent of the particulate matter in the skies above Los Angeles are from China.** *See Attachments “B” and “C.”* About a third of the Asian pollution is dust, while the rest is composed of sulfur, soot

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and trace metals from the burning of coal, diesel and other fossil fuels. *I.e.*, It is irresponsible for the Regional Board to hold the Cities fully accountable for removing and preventing the deposition of metals when the Cities cannot possibly hope to control or reduce the level of deposition.

We appreciate the State Board's efforts to address the impacts of atmospheric deposition on water quality. The State Board recognized in the Los Angeles River Metals TMDL that time will be necessary to complete the necessary atmospheric deposition studies. Time will also be necessary for extensive planning, design, financing and construction of structural Best Management Practices ("BMPs") to deal with metals in urban runoff. The State Board should suspend the metal reduction requirements in the San Gabriel River Metals TMDL until these studies are completed. This is the fair and equitable approach, since local government cannot control the sources of atmospheric deposition and should not be held responsible to reduce metals loads from sources beyond their control to regulate.

#### **B. Application of the California Toxics Rule is Inappropriate**

The Cities are concerned that the Metals TMDL's application of the California Toxics Rule ("CTR") levels to urban runoff is inappropriate and, in its current form, unworkable. The Metals TMDL, if applied as strict numeric limits to the cities, will result in the application of CTR limits as end-of-pipe numeric limits to be met at all times. The Cities do not support this approach.

CTR limits are extremely low, exceeding municipal drinking water standards by many times. Much of the municipal drinking water in the watershed averages 190 micrograms per liter (chronic, based on hardness of 100). The CTR standard would require a reduction to 9 micrograms per liter. We are concerned that the Regional Board intends to enforce the CTR as strict, "never to be exceeded" numeric limits, as evidenced in its recent "reopener" of the NPDES permit to include the Santa Monica Bay Bacteria TMDL.

Several studies have demonstrated that current BMPs cannot consistently achieve the metals reductions required to CTR levels. *See "San Gabriel River Metals TMDL Technical Comments,"* prepared by Drs. Susan Paulsen and John List of Flow Science; Caltrans Retrofit Pilot BMP Study, 2004. We know that some BMPs can and do result in significant improvements to water quality. Some BMPs work well on particulate metals. The dissolved metals generally, however, cannot be removed

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through conventional BMPs. Many areas of the watershed have clay soils or high ground water, which are not conducive to infiltration BMPs. Flow through media filter BMPs are in their developmental infancy and do not remove metals to CTR standards. The Angeles Regional Board has downplayed the need to construct reverse-osmosis or micro-filtration systems but these devices are the only current technologies meeting CTR standards consistently. These systems require extremely high capital and maintenance costs, including the construction of storm water storage and brine disposal facilities.

**C. The Regional Board's Reliance on Numeric Limits in the Metals TMDL is Infeasible**

The Cities believe that the State Board should carefully consider the recommendations of the panel's report "*The Feasibility of Numeric Effluent Limits Applicable to Discharges of Storm Water Associated with Municipal, Industrial and Construction Activities*" in relation to adopting the Metals TMDL. The Regional Board approved the Metals TMDL prior to the conclusion of this important study.

We support the panel's overall findings for municipal storm water permits, that:

**"It is not feasible at this time to set enforceable numeric effluent criteria for municipal BMPs and in particular urban discharges"**

(Panel Report, p. 4.)

Given the paucity of scientific data surrounding the causes of metals deposition and the effectiveness of proposed mitigation plans, the Cities believe that the State Board should prohibit the Regional Board from establishing absolute numeric limits for ("BMPs"). Rather, the State Board should direct the Regional Board to develop and set "action levels" for contaminants that have caused water quality impairments (*i.e.* 303(d) listing). Applying this protocol, monitoring results for an impaired water body showing a listed contaminant in excess of an action level would trigger heightened scrutiny by the Stakeholders and the Regional Board.

The scrutiny would follow a concise protocol. As an initial step, the Stakeholders would immediately act to confirm the water quality monitoring finding by performing repeated sampling and analysis of the affected water body for the contaminant in a

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defined length of time. In this manner, the Stakeholders and the Regional Board will be able to confirm that the initial result was not merely an aberration.

Assuming subsequent monitoring verifies the initial finding, the Stakeholders could then undertake a survey to determine the cause or source of the exceedance. In consultation with the Regional Board, the regulated community would take appropriate remedial action to mitigate that cause or source, if found to be anthropogenic. A reasonable amount of time should be allowed for the remedial action to take effect before any enforcement action is subsequently undertaken by the Regional Board. In this manner, the Cities will be provided sufficient notice and opportunity to demonstrate that no water quality impairment has taken place and/or respond to any alleged exceedance of the waste load allocation water quality prior to being found in violation of an effluent standard.

The recommendations of the State Board's Panel demonstrate it is premature to require compliance with numeric limits in the proposed TMDL. The TMDL currently would require that local governments meet the CTR numeric limit of 100% dry-weather compliance with the waste-load allocation by 2015 and 100% compliance with the wet-weather waste-load allocation by 2023. Such an approach is directly contrary to the recommendations of the State Board Panel.

#### **D. Failure to Consider Water Code Sections 13000 and 13241**

Water Code section 13000 mandates that the Regional Board's regulations must be "reasonable, considering all demands being made and to be made on those waters and the total values involved, beneficial and detrimental, economic and social, tangible and intangible." Water Code section 13241 requires the Regional Board to consider a number of factors when adopting its regulations, including economic considerations and the need for developing housing in the region. The Regional Board has not complied with these statutory requirements in adopting the Metals TMDL.

The Regional Board estimates that the costs of complying with this one Metals TMDL will be \$1.9 billion without land acquisition costs (i.e. \$2.8 million per square mile). These costs alone are a significant financial burden for our community. Further, as shown by the cost estimation study attached to our June 19, 2006 letter, the Regional Board's estimates may be significantly higher. There are clearly broad economic, social and housing impacts with the proposed TMDL on our community that the Regional Board has failed to consider.

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The TMDL's implementation plan anticipates the construction of sand filters and infiltration trenches in 60% of a city's watershed area. The "per square mile" construction costs for these filters and trenches are estimated at \$32.5 million (costs of infiltration trenches are estimated at \$22,500,000 per square mile and cost of sand filters are estimated at \$9,966,000 per square mile). It should be noted that these costs do not take into account any necessary land purchases. These cost estimates, for residential land only, are detailed in the study "*Impacts on Housing of the Metals TMDL for the San Gabriel River,*" prepared by Richard Watson, June 14, 2006 and previously provided to the Regional Board. This report shows residential land acquisition and relocation costs of approximately \$6 billion. The land acquisition cost estimated for commercial and industrial property is approximately \$2.4 billion, bringing the total land acquisition costs figures ignored by the Regional Board to approximately \$8.4 billion. The land acquisition and relocation cost figures are significant and should have been considered by the Regional Board.

Prior to adopting the Metals TMDL, the State Board should order the Regional Board to conduct a full economic analysis. The State Board and Regional Board have a model economic analysis that they can rely upon (Sunding, et al.) as a template. The economic review can be designed to find the most cost-effective and environmentally beneficial measure to implement metals reductions in the San Gabriel River watershed. The refusal of the Los Angeles water board to review the economic, social, and housing impacts of the Metals TMDL is not fair to local governments and our fiduciary responsibility to our taxpayers, residents, and businesses.

\* \* \*

The Cities respectfully request that the State Board postpone incorporating the Metals TMDL into the Water Quality Control Plan for the Los Angeles Region until such time as the Regional Board and affected Stakeholders can conduct a thorough scientific study on the effectiveness of the Regional Board's plan to eliminate metal pollutants in the San Gabriel River watershed. Requiring Stakeholders to go forward with this plan without conducting further study would be an inefficient and unproductive use of public resources.

The Cities are dedicated to putting forth the resources required to properly address and mitigate alleged metals discharges which may emanate from the Cities' storm drain system. Prior to dedicating the significant amount of resources required for this undertaking, however, the Cities ask that the State and Regional Board take the time

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to ensure that the prescribed cure is scientifically proven to achieve results. The Cities do not believe that the Metals TMDL as it is presently written is sufficient to adequately address the problems of alleged metals exceedances.

We look forward to your response to these comments as well as other comments submitted by the other Stakeholders.

Respectfully,



Matthew E. Cohen

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cc: Maria Dadian (*w/enclosures, via email*)  
Andrea Travis (*w/enclosures, via email*)  
Chino Consunji (*w/enclosures, via email*)

# **ATTACHMENT A**

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Matthew E. Cohen  
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June 19, 2006

**Via E-Mail and U.S. Mail**

Jenny Newman  
California Regional Water Quality Control Board  
Los Angeles Region  
320 West Fourth Street, Suite 200  
Los Angeles, CA 90013

Re: Comments on the Draft Total Maximum Daily Loads for Metals and  
Selenium in the San Gabriel River and Impaired Tributaries

Dear Ms. Newman:

The Cities of Artesia, La Mirada, and Norwalk (“Cities”) appreciate this opportunity to comment on the Draft “Total Maximum Daily Loads for Metals and Selenium in San Gabriel River and Impaired Tributaries” (“Draft TMDL”). We understand that many of the other stakeholders located in the watershed are also submitting comments under separate cover. As discussed below, the Cities have serious concerns regarding the legality and viability of carrying out this TMDL.

1. **The Draft TMDL Fails to Comply with Relevant Provisions of the California Environmental Quality Act**

The Cities believe that the Draft TMDL violates the California Environmental Quality Act, set forth in Public Resources Code §§ 21000, *et seq.* (“CEQA”). CEQA requires the Regional Board to review any significant potential environmental impacts created by its actions. In the Draft TMDL, the Regional Board staff generally relies on a certification from the Secretary of Resources set forth in 14 California Code of Regulations section 15251(g) to avoid most of the documentary and procedural requirements of CEQA. We do not believe that the exemption applies here.



Public Resources Code section 21080.5(d)(2) provides that, in order to qualify for certification, a regulatory agency must ensure that:

“The rules and regulations adopted by the administering agency for the regulatory program do all of the following:

(A) Require that an activity will not be approved or adopted as proposed if there are feasible alternatives or feasible mitigation measures available that would substantially lessen a significant adverse effect that the activity may have on the environment.

(B) Include guidelines for the orderly evaluation of proposed activities and the preparation of the plan or other written documentation in a manner consistent with the environmental protection purposes of the regulatory program.

(C) Require the administering agency to consult with all public agencies that have jurisdiction, by law, with respect to the proposed activity.

(D) Require that final action on the proposed activity include the written responses of the issuing authority to significant environmental points raised during the evaluation process. . . .”

The Regional Board’s Draft TMDL fails to comply with even these basic requirements. The Draft TMDL does not list feasible alternatives or mitigation measures, nor does it include guidelines on how to prepare plans. This constitutes a violation of CEQA. Pub. Resources Code § 21080.5(d)(3)(A).

Even if the certification exception were to apply, the Draft TMDL still fails to satisfy CEQA. With a certified regulatory program, the Regional Board must satisfy the applicable regulatory requirements of CEQA, and conduct the equivalent of the required analysis of the environmental impacts and effects. Cal. Code Regs., tit. 14 §§ 15250, 15252. As part of this analysis, the Regional Board must conduct the equivalent of a preliminary review and initial study. Cal. Code Regs., tit. 14 § 15252, subd. (a). The preliminary review and initial study must include a description of the proposed activity, an analysis and informed determination with respect to potential significant environmental impacts, a completed "environmental checklist," and a report providing a description of the proposed activity, reasonable alternatives, and mitigation measures to minimize any significant adverse impacts. Cal. Code Regs., tit. 14 §§ 15250, 15252. The checklist prepared by the Regional Board fails to meet these basic CEQA requirements.

The CEQA checklist document fails to properly analyze and present alternatives to the proposed implementation plan. Cal. Code Regs., tit. 14 § 15126.6. A proper CEQA analysis should contain a “no project” alternative which would provide the public with a thorough analysis and understanding of the conditions present in the San Gabriel watershed. Cal. Code Regs., tit. 14 § 15126.6(e) The failure of the Regional Board to consider this option, as well as the failure to present an analysis of the effectiveness of the discussed and reasonably foreseeable Best Management Practices (“BMPs”), constitutes a violation of the Regional Board’s CEQA obligations. *See City of Arcadia v. State Water Resources Control Board* (2006) 135 Cal. App. 4th 1392, 1426.

Under CEQA, the Regional Board must (1) determine whether the proposed TMDL will have a significant effect on the environment; and (2) prepare the functional equivalent of an Environmental Investigation Report (“EIR”) if there is substantial evidence that any aspect of the project may cause a significant effect on the environment. Cal. Code Regs., tit. 14 §§ 15063, 15250, 15252. The Regional Board’s checklist does not provide sufficient analysis of the impacts or offer evidence of ways in which the impacts can be mitigated to a level of insignificance. Pub. Resources Code §§ 21064.5, 21080.5, 21080 (c), Cal. Code Regs., tit. 14 §§ 15063, 15250, 15252.

The potential significant environmental effects that the Draft TMDL fails to adequately analyze include, but are not limited to, the following: (i) significant changes in the water quality as a result of the proposed implementation plans, including water flow disruptions, soil displacement, an increase in noise and traffic levels, changes in absorption rates, drainage patterns, and the amount of surface water runoff; (ii) significant impacts on public service and facilities such as fire and police protection, schools, parks and other recreational facilities, maintenance of public facilities and roads, and other governmental services; (iii) significant impacts on utilities and service systems for water and storm water drainage; and (iv) significant impacts on the availability of housing in the region. The failure of the Regional Board to undertake a proper study of these impacts and consider the feasibility of alternative impacts results in the Draft TMDL’s invalidation. *City of Arcadia*, 135 Cal. App. 4th at 1426.

## **2. The Draft TMDL Fails to Consider Other Sources of Pollution**

As discussed in U.S. Environmental Protection Agency’s (“EPA’s”) “Guidance for Developing TMDLs in California”, 40 C.F.R. § 130.2(i) and 40 C.F.R. § 130.7(c)(1) require that point, nonpoint and background sources of pollutants of concern be described in the TMDL, including the magnitude and location of such

sources. The Draft TMDL assumes that the vast majority of metals present in the impaired river and tributaries are attributable and subject to the sole control of the alleged dischargers. Although the Draft TMDL report acknowledges that "atmospheric deposition could potentially account for 57-100% of the metals in storm runoff," it does not provide scientific data or analysis sufficient to prove that the Cities are responsible for that deposition or that the methods employed by each individual City will have the net effect of mitigating that deposition. *See San Gabriel TMDL Staff Report, page 26.* No effort appears to have been made to determine whether a source control alternative would be more feasible than requiring cities to monitor and control runoff. The Regional Board's Draft TMDL thus does not provide sufficient justification or assurances that the imposition of massive infrastructure projects on Cities will have any net positive effect on reducing the metal content in the San Gabriel River watershed.

Additionally, the Draft TMDL falsely presumes that the Cities can monitor facilities over which neither the Cities nor any of the other named dischargers have jurisdiction, such as school districts, water districts, state entities, and private landowners. The Regional Board could and should feasibly exercise regulatory jurisdiction over these facilities prior to the adoption of the Draft TMDL. As a matter of public policy, it is inequitable to place the entire burden of monitoring and mitigating these facilities solely on the alleged dischargers enumerated in the Draft TMDL. Any TMDL must include a comprehensive list of *all* discharges and hold them accountable for their proportional share of the watershed.

### **3. Compliance Within the Proposed Time Frame Would be Unrealistic**

The Draft TMDL imposes stringent time limits for the coordination, funding, submission, and realization of a TMDL Implementation Plan. According to the Draft TMDL, monitoring plans must be in place within twelve months and the parties have ten years to reach full compliance. This proposed implementation schedule is six years less than the 75% dry-weather limitations and eight years less than the wet-weather requirements contained in the Los Angeles River Metals TMDL. Given the size of the project, the number of agencies involved, and the lack of solid data underlying the TMDL goals, such a timeframe is highly unrealistic.

Furthermore, the Cities are expected to undertake massive infrastructure projects to meet the stated goals for dry and wet weather waste load allocations year six, while the entire plan itself is subject to revision at year five. Ramping up for this deadline will require the Cities to invest significant portions of their budgets over the next five years towards TMDL compliance. Such prodigious investments will

undoubtedly come at the expense of other vital programs and services such as police, fire protection, and education. Furthermore, the Cities have no assurances from the Regional Board that these sacrifices will result in real world progress towards reducing metal runoff. If the Regional Board truly wants 100% compliance from the Permittees, they must provide time frames that recognize the data gaps and require investments reasonable to and in accordance with the information at hand.

4. **The Draft TMDL Amounts to an Unfunded Mandate**

By requiring compliance with the Draft TMDL, the Regional Board has imposed new programs and/or has required a higher level of service of existing programs that are not required or mandated under the Clean Water Act or any federal regulations thereunder. The imposition of unfunded programs and mandates in the Draft TMDL is inconsistent with the provisions of the California Constitution, specifically Article XIII B, Section 6, which requires a state agency which mandates a new program or a higher level of service to provide a "subvention" of funds to reimburse local governments for the costs of the program or increased level of service.

The Draft TMDL does not fully consider the fiscal impact on the Cities. The Draft TMDL will require a substantial capital investment, which individual cities will have to fund, despite the fact that no funding mechanism, nor any assistance, financial or otherwise, is being provided to the cities. To our knowledge, the Regional Board has made no provision for funding the massive public works projects it has proposed in the current draft.

The Regional Board purports to rely on Water Code section 13267 as well as section 303(d) of the Clean Water Act for the authority to undertake this TMDL.<sup>1</sup> Article XIII B, Section 6 of the Constitution prevents the state from shifting the cost of government from itself to local agencies without providing a "subvention of funds to reimburse that local government for the costs of the program or increased level of service . . ." State agencies are not free to shift state costs to local agencies without providing funding merely because those costs were imposed upon the state by the federal government. If the state freely chooses to impose costs upon a local agency as a means of implementing a federal program, then those costs should be reimbursed by the state agency. *See Hayes v. Commission on State Mandates* (1992) 11 Cal. App. 4th 1564, 1593-1594. If the state refuses to appropriate money

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<sup>1</sup> Section 303(d) of the Clean Water Act is codified at 33 U.S.C. section 1313(d).

to reimburse a city, the enforcement of the state mandate can potentially be enjoined by a court. *See Lucia Mar Unified School District v. Honig* (1988) 44 Cal. 3d 830, 833-834.

The Draft TMDL contains new programs and mandates that go beyond the specific requirements of either the Clean Water Act or the EPA's regulations implementing the Clean Water Act. This includes, but is not limited to, the development of massive public works projects to alter the normal flow patterns of the San Gabriel River watershed as well as the rigorous requirements to monitor and regulate unimpaired waters. If the Regional Board wishes to impose this program, it needs to provide a means to pay for its implementation.

The Draft TMDL contains numerous data collection requirements. These activities go beyond the requirements of EPA's regulations implementing the Clean Water Act. Any information collection demands mandated by federal regulations must be submitted for approval to the Office of Management and Budget under the provisions of the Paperwork Reduction Act. 44 U.S.C. §§3501 *et seq.*

Implementing the programs outlined in the Draft TMDL would require the Permittees to collectively hire dozens of additional employees to implement these mandates. The Cities do not believe that these additional burdens were contemplated by EPA, nor are they consistent with the requirements of the federal Paperwork Reduction Act. *See* 44 U.S.C. §3507.<sup>2</sup> Accordingly, these requirements may be invalid for failure to comply with the Paperwork Reduction Act.

**5. The Draft TMDL is Not In Accordance with State Reasonableness Requirements**

Regional Board regulations must be "reasonable, considering all demands being made and to be made on those waters and the total values involved; beneficial and detrimental, economic and social, tangible and intangible." Water Code § 13000.

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<sup>2</sup> Section 3507 of title 44 of the United States Code mandates that a federal "agency shall not conduct or sponsor the collection of information unless in advance of the adoption or revision of the collection of information. . . (1) the agency has. . . (D) published a notice in the Federal Register . . . (ii) setting forth. . . (V) an estimate of the burden that shall result from the collection of information." (Emphasis added.) Section 3502(2) of title 44 of the United States Code defines the term "burden" to include the "time, effort, or financial resources expended by persons to generate, maintain, or provide information to or for a Federal agency. . ." (Emphasis added.) If, as the Regional Board maintains, these TMDL requirements are mandated by the EPA, then the Regional Board must conduct a thorough analysis of the burden on the Permittees.

Any regulations relating to discharges must be based on water quality objectives that are "reasonably required for that purpose." Water Code § 13263. All water quality objectives adopted by the Regional Board must be reasonably achievable and take into account a variety of factors including, but not limited to, those factors enumerated in Water Code section 13241. Given the aerial deposition findings described above, the Regional Board has not presented sufficient evidence to show that the mitigation measures and effluent limitations will have a net positive impact on water quality. Prior to imposing any conditions the Regional Board has a legal duty to ensure that the methods employed and expenditures required are reasonable for achieving the stated goals.

Because of the high variability present in the frequency and duration of storm events, numeric limits for municipal storm water discharges should be employed "only in rare cases." See EPA Memorandum, Establishing Total Maximum Daily Load (TMDL) Waste Load Allocations (WLAs) for Storm Water Sources and NPDES Permit Requirements Based on those WLAs (November 22, 2002). In the case of this TMDL, the Cities believe that a more reasonable and appropriate approach is one that utilizes an iterative, BMPs technique intended to produce concentrations in the receiving water to the Maximum Extent Practicable ("MEP").

#### **6. The Draft TMDL Does Not Undertake a Cost/Benefit Analysis**

By mandating compliance with this Draft TMDL, the Regional Board is asking the Cities to undertake efforts in excess of its requirements under the federal Clean Water Act. For example, section 303(d) of the Clean Water Act does not obligate states to undertake costly and detailed programs aimed at regulating unimpaired waters. See 33 U.S.C. § 1313. For this authority, the Regional Board relies on Water Code section 13267. When the Regional Board relies on California state law, consideration of economic factors is appropriate. *City of Burbank v. State Water Resources Control Board* (2005) 35 Cal. 4th 613, 627-628. The Regional Board has not properly analyzed the cost and economic impact of the Draft TMDL in the manner contemplated by the Clean Water Act and Water Code § 13241.

As part of the development and implementation of water quality control plans, federal and state law provide that a Regional Board must consider specific factors in formulating appropriate water quality objectives. 33 U.S.C. § 1313; Water Code § 13241. These factors include, but are not limited to, the following: (1) the past, present, and probable future beneficial uses of water; (2) the environmental characteristics of the hydrographic unit under consideration, including the quality of water available to that unit; (3) water quality conditions that could reasonably be achieved through the coordinated control of all factors that affect water quality in

the area; (4) *economic considerations*; (5) the need for developing housing within the region; and (6) the need to develop and use recycled water. Water Code § 13241; *See also*, 40 C.F.R. §§ 130-131.

The Draft TMDLs cost estimates fails to account for a number of costs, including land acquisition costs, relocation assistance, and the addition of technical and maintenance staff to monitor and implement the TMDL. Additionally, the cost estimates in the Draft TMDL do not factor in the extensive financial burden placed on the Cities to conduct sampling and data collection. The costs associated with undertaking such an aggressive program over the course of the fifteen-year proposed implementation plan period will likely result in expenditures totaling tens of millions of dollars per city. *See* attached costs estimates for the City of Artesia.

Even if the Draft TMDL did not exceed of the requirements under the federal Clean Water Act, consideration of economic factors would still be appropriate. Section 1251(a)(2) of title 33 United States Code sets as a national goal, "*wherever attainable*," an interim goal of water quality. Furthermore, section 1313(c)(2)(A) of title 33 United States Code requires consideration of "*use and value*" when revising or adopting a new standard. These statutes obligate the Regional Board to consider economic factors whenever it seeks to alter or adopt water quality standards. *See City of Burbank, supra*, 35 Cal. 4th at 627.

Additionally, although the Regional Board may be able to require a local agency to investigate and report on any technical factors involved in water quality, the economic burden, including the costs of such reports, must bear a reasonable relationship to the need for the report and the benefits to be obtained therefrom. Water Code §§ 13165, 13225(c), 13267(b). The inspection and monitoring obligations imposed in the Draft TMDL are not reasonable in that they require the Cities to expend unquantifiable amounts of public resources on studying and developing mitigation plans that do not likely result from activities taken within their jurisdiction.

#### **7. The Scientific Methodology Employed is Vague and Incomplete**

All TMDLs must be based on sound science and must be established in accordance with state and federal regulations, which provide for informed decision making and opportunities for meaningful public input. 40 C.F.R. 130.7(c). Numeric water quality target(s) for a TMDL, if deemed necessary, must be identified, and an adequate basis for target(s) as interpretation of water quality standards must be specifically documented in the submittal. 40 C.F.R. 130.7(c)(1).

The data supporting the Draft TMDL is built upon a shaky scientific foundation. In many cases, the data that the Regional Board relied on for the purposes of establishing the TMDL is based on limited knowledge regarding, among other things, the effects of aerial deposition, the appropriateness of the assimilative capacity study conversion factors, and the effectiveness of mandating numeric limitations over MEP compliant BMPs. The Regional Board has provided no evidence that the implementation of the suggested structural and non-structural BMPs will permit the Cities to meet the numeric limitations imposed by the California Toxics Rule standards. Before mandating a costly and time consuming research order, the Regional Board must undertake further study to suggest methods that result in proven, realistic, and viable solutions.

By not subjecting the Draft TMDL to scientific peer review, the Regional Board fails to comply with Health and Safety Code section 57004. Health and Safety Code section 57004(d) provides in pertinent part:

"No board, department, or office within the agency shall take any action to adopt the final version of a rule unless all of the following conditions are met:

(1) The board, department, or office submits the scientific portions of the proposed rule, along with a statement of the scientific findings, conclusions, and assumptions on which the scientific portions of the proposed rule are based and the supporting scientific data, studies, and other appropriate materials, to the external scientific peer review entity for its evaluation.

(2) The external scientific peer review entity, within the timeframe agreed upon by the board, department, or office and the external scientific peer review entity, prepares a written report that contains an evaluation of the scientific basis of the proposed rule. If the external scientific peer review entity finds that the board, department, or office has failed to demonstrate that the scientific portion of the proposed rule is based upon sound scientific knowledge, methods, and practices, the report shall state that finding, and the reasons explaining the finding, within the agreed-upon timeframe. The board, department, or office may accept the finding of the external scientific peer review entity, in whole, or in part, and may revise the scientific portions of the proposed rule accordingly. If the board, department, or office disagrees with any aspect of the finding of the external scientific peer review entity, it shall explain, and include as part of the rulemaking record, its basis for arriving at such a determination in the adoption of the final rule, including the reasons why it has determined that the scientific portions of



the proposed rule are based on sound scientific knowledge, methods, and practices. . . .”

The term "rule" is defined in Health and Safety Code section 57004(a)(1) as either:

“(A) A regulation, as defined in Section 11342.600 of the Government Code.

(B) A policy adopted by the State Water Resources Control Board pursuant to the Porter-Cologne Water Quality Control Act (Division 7 (commencing with Section 13000) of the Water Code) that has the effect of a regulation and that is adopted in order to implement or make effective a statute.”

Health and Safety Code section 57004(2) defines the terms "scientific basis" and "scientific portions" as:

"[T]hose foundations of a rule that are premised upon, or derived from, empirical data or other scientific findings, conclusions, or assumptions establishing a regulatory level, standard, or other requirement for the protection of public health or the environment.”

There is nothing in the Draft TMDL, or related documents, which indicates that the Regional Board has complied with Health and Safety Code section 57004 in drafting or adopting the Draft TMDL, or that there was any scientific peer review of any aspect of the Draft TMDL.<sup>3</sup>

8. **The Draft TMDL Does Not Comply with the Administrative Procedures Act**

The Administrative Procedures Act (Cal. Gov. Code § 11340, *et seq.* (the "APA") applies to the Regional Board's adoption of the TMDLs. The Draft TMDL does not comply with the requirements of the APA, including, but not limited to making a showing of "necessity," "authority," "clarity," "consistency," "reference" and "non-duplication." *See* Gov. Code § 11349.1(a).

Two, but by no means the only, examples of where the Draft TMDL fails to comply with the APA are with respect to the "necessity" and "consistency"

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<sup>3</sup> The requirement for scientific peer review of TMDLs is not limited to California State law. *See also* 40 C.F.R. 130.7(c)(1)(ii); U.S. Environmental Protection Agency Region IX (2000) Guidance for Developing TMDLs in California, p. 15.

requirements. As detailed in the points above, the Draft TMDL fails to comply with the APA with respect to the "necessity" requirement in that it does not provide substantial evidence, including facts, studies, and expert opinion, sufficient to justify the imposition of the effluent limitations and structural BMPs. Gov't Code § 11349(a). Furthermore, the Draft TMDL does not meet the "consistency" aspect of this Act insofar as it is in conflict with, and contradictory to, existing statutes, court decision, or other provisions of law. See Gov't Code § 11349(d).

9. **Approval of the Draft TMDL Constitutes a Quasi-Judicial Act Subject to Substantial Evidence Review**

The approval of a TMDL is an act disparate from the adoption of a Basin Plan Amendment. The TMDL report is independently required by the Clean Water Act and has been "reviewed, considered, and accepted by the Regional Board before acting" on the Basin Plan Amendment. California Regional Water Quality Control Board, Los Angeles Region, [proposed] Resolution No. R06-XXX (Amendment to the Water Quality Control Plan for the Los Angeles Region to Incorporate a Total Maximum Daily Load for Metals and Selenium in the San Gabriel River and Impaired Tributaries), ¶ 10. As such, approval of the TMDL Report is a quasi-judicial act subject to the substantial evidence requirements of California Code of Civil Procedure section 1094.5.

Abuse of discretion is established whenever the findings are not supported by substantial evidence in light of the whole record. Civ. Proc. § 1094.5(b), (c). The Regional Board must "bridge the analytic gap between the raw evidence and ultimate decision or order" and its decision must be "clearly disclosed and adequately sustained." *Topanga Assoc. for a Scenic Comm v. County of Los Angeles* (1974) 11 Cal. 3d 506, 515-16 (citing *S.E.C. v. Chenery Corp.* (1943) 318 U.S. 80, 94 for the second quotation). As described in detail above, this requirement has not been adequately addressed in the current version of the Draft TMDL.

\* \* \*

In conclusion, the Draft TMDL still needs substantial revision and modification. The Draft TMDL does not adequately consider the unique characteristics and challenges present in requiring the Cities to undertake this regulation. The burdens that the Regional Board seeks to impose will have a profound impact on the Cities and its residents. This burden is disproportionate to the Cities' alleged discharges into the San Gabriel River watershed.

The Cities hereby incorporate and adopt the technical comment letter from Charles Abbott Associates, Inc., as well as comment letters submitted by other stakeholders. The Cities furthermore, reserve their right to make objections to this TMDL and request additional information and documents from Regional Board staff at the hearing.

The Cities also request that the Regional Board provide a complete list of the documents contained in the Administrative Record. Such a list should include all documents relied on by the Regional Board in reaching its conclusions, as well as all documents and comments received from interested agencies regarding this TMDL. The failure to provide the Cities with a complete list of documents comprising the Administrative Record in advance of the Public Hearing will substantially impair the Cities' preparation for the hearing and result in a violation of the Cities' fundamental due process rights. Additionally, the Cities feel it is imperative that they have the opportunity to review and copy all documents listed as part of that Administrative Record.

Despite the concerns, the Cities are prepared to continue to engage in a constructive dialogue with Regional Board staff to develop a TMDL that will make genuine progress toward our common objective of controlling pollutants in the San Gabriel River watershed to the maximum extent practicable. The Cities believe that an appropriate next step would be for the Regional Board to postpone the adoption of this TMDL until such time as the Regional Board can provide adequate support for its adoption.

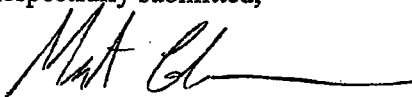
In the interim, the Cities ask that the Regional Board, or those members of the Regional Board that are so willing, conduct a hearing on this matter to obtain more information regarding the Cities' recommendations for achieving compliance with the TMDLs' proposed effluent limitations. *See* Water Code section 13228.14.

As public agencies, all parties involved in the TMDL process have the obligation to carry out their duties in a responsible, realistic, and reasoned manner. Requirements that tether public agencies to impractical positions are counterproductive and violative of our sacred charge as representatives of the people. The Cities are dedicated to working with the State and Regional Boards in order to achieve full compliance with state and federal law so long as these precepts remain as a cornerstone of all regulatory action.

Jenny Newman  
June 19, 2006  
Page 13

We look forward to your response to these comments as well as other comments submitted by the County and other cities and agencies.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Matt E. Cohen", followed by a long horizontal line extending to the right.

Matthew E. Cohen

A0444-1024\897957v2.doc  
Enclosures

cc: Jonathan Bishop

**ATTACHMENT "1"**  
**SAN GABRIEL RIVER METALS TMDLs**  
**COST ESTIMATION WORK SHEET**

By: City of Artesia City Engineer C. A. Alba

**Calculation of the Costs of Compliance with Metals TMDL**

A. Cost of Studies

1. *Estuary Study*

The TMDL requires that Reach 1 cities participate in study of the copper in the Estuary. This study may cost upwards of \$1.2 million based on estimates from the Southern California Coastal Water Research Project. No cost sharing formulas have been developed to decide the amount cities will have to pay towards this study. Both the Los Angeles Department of Water Power Haynes electrical plant and the AES plant are significant sources of copper. Reach 1 Cities should anticipate \$100,000 per city for this study.

A. 1 Estuary Study Costs = \$100,000 (for Reach 1 cities)

2. *Water Quality Monitoring*

The TMDL will require additional monitoring. Recent cost estimates for the Los Angeles River Metals TMDL (prepared by the TMDL Public Works Officials) indicates that \$1,290,000 will be necessary in one-time costs to set up monitoring equipment and \$983,000 will be required annually for water quality laboratory analysis. The LA River watershed is 834 square miles in size, while the San Gabriel River watershed is 689 square miles in size. An argument can be made that the costs for the San Gabriel River watershed would be 83% of the costs for the Los Angeles River. Therefore, a preliminary estimate of monitoring costs can be based on Los Angeles River monitoring costs as follows:

Set Up Monitoring Costs = \$1,070,000  
Annual Monitoring Costs = \$678,000 x 5 years = \$3,390,000

Cost allocation formula: The San Gabriel River watershed includes both Los Angeles County and Orange County, as well as 33 Los Angeles County communities, 12 Orange County communities and Caltrans. Equal costs shares are assumed for the purposes of this estimate (48 stakeholders).

Costs Per City

Set Up Monitoring = \$22,291  
Monitoring Costs = \$70,625

A.2. Monitoring Costs = \$92,916 (per city)

3. *Additional Studies*

The TMDL lists a number of additional studies. The LA River Metals TMDL Public Works Officials have recommended that four additional studies be completed. Similar studies would be needed for the San Gabriel River watershed. San Gabriel River cities should anticipate participation in a Copper Site Specific Objective study. The Southern California Coastal Water Research Project and Tetra Tech, Inc., developed a detailed work plan in December of 2004. The cities should anticipate \$996,000 in costs for this study.

The second study would be paired measurements of atmospheric deposition. The costs are estimated at \$590,000. The third study would be storm flow sampling. The costs are estimated at \$530,000. The fourth study would review the effectiveness of Best Management Practices. This study is estimated to cost \$227,000 annually and \$833,000 overall.

Costs Per City

Copper SSO	\$20,750
Atmospheric Deposition	\$12,290
Storm Flow Sampling	\$11,041
BMP Effectiveness	\$17,354

A.3 – Voluntary Study Costs = \$61,435

B. Street Sweeper Upgrades and Increases in Frequency of Sweeping

The TMDL recommends upgrading the dry-vacuum assisted sweepers. As a benchmark cities should report estimated costs above the NPDES Street Sweeping

NPDES Reported Street Sweeping Costs: \$639,000  
Estimated Additional Costs: Unkown – assumed 10% increase: \$64,000

C. Increased Catch Basin Cleaning

NPDES Reported Catch Basin Cleaning: -0- (City owns only one catch basin, others owned by LA County)

San Gabriel River Metals TMDLs  
Cost Estimation Work Sheet  
Page 3

D. Dry Weather Diversions

Cities may not be able to utilize dry-weather diversions, since the County Sanitation District is concerned about metals limits in their existing NPDES Permits on the San Gabriel River. The Sanitation Districts' permits required their discharges to meet "end-of-pipe" metals standards in the receiving waters at their treatment plants. Cities should anticipate some type of metals removal process, in order to not impact the Sanitation Districts NPDES Permits.

Cities estimating dry-weather diversions costs should anticipate the costs of storage tanks or holding ponds, for discharge in "off-peak" hours. Cities may also want to review sewer capacity issues. For comparison purposes, the cost of the dry-weather diversion plan for the Santa Monica Bay TMDL is estimated at \$26 million for 27 diversions. These costs do not include storage or retention facilities construction.

E. Sand Filters

The TMDL anticipates the installation of sand-filters in 30% of the urbanized watershed. Using your city's total acreage on Page One, please perform the following calculations:

Sand Filter Construction Costs

Total Square Miles in Watershed 1.6 x 640 Acres per Square Mile = total Acres in Watershed 1,024 Acres

Total acres in Watershed 1,024 Acres x 0.30 = 307 Acres for Sand Filters

Acres for Sand Filters 307 /50 acres per filter = Total Filters 6

Total Filters 6 x \$190,258 (2005 dollars) \* = Total Construction Costs of Sand Filters \$ 1,115,000 (rounded)

\* The TMDL anticipates the construction of Austin sand filters to serve 50-acre drainage areas within 30% of the urbanized watershed. The per acre Adjusted Caltrans Cost Estimate is from Section 7.4.2 of the San Gabriel River Metals and Selenium TMDL staff report based on the installation of Austin sand filters, designed to capture one-year, 24-hour storm events. This design is greater than the SUSMP requirement, but less than the open-ended TMDL requirement to design devices to comply with water quality objectives for any sized storm. This construction cost was subjected to "peer review" during the Caltrans BMP Pilot Retrofit Program in January 2004.

There may be some savings if projects are grouped and constructed together. However, these costs savings may be negated by the greater design costs for large, complex watersheds.



Sand Filter Land Acquisition Costs (Residential)

The TMDL does not discuss the appropriate size of the retention areas, based on the requirements that all rain events be planned for. This cost estimate relies upon the "Preliminary Data Summary of the Urban Storm Water Best Management Practices – EPA-821-R-99-012, August 1999) in order to correctly size the retention area for a 50-acre retention facility. EPA assumes that 35% of the watershed is impervious. However, Analysis of data in the model used to simulate wet-weather metals loading from the San Gabriel River watershed indicates that the average imperviousness of the non-forest parts of the watershed averages 45%. Highly urbanized cities in the watershed may be 70% impervious surface. We have assumed 45% imperviousness for this review. Table 6-9 of the EPA report assumes the land required for a retention basin is 2%-3% of the impervious area in the drainage. At 3% the land required for a retention basin to serve 50-acres is 0.7 acres. We assume the 3% based on the requirement to have space for access and maintenance.

Sand-filters may be located in residential, commercial and office neighborhoods, based on individual land uses and city preferences. This calculation relies on locating sand-filters in residential land uses. We have assumed average residential lot sizes of 5,000 square feet. It is reasonable to assume that a significant numbers of infiltration trenches will be located in single-family residential neighborhoods, since the TMDL assigns high metals loads to these land uses. Single-family home are also more cost-effective to purchase, as compared to multi-family and commercial uses, yielding more land per dollar for the retention facilities.

0.7 acres = 30,492 square feet / 5,000 square feet = 6 Single-Family Homes

Number of Sand Filters 6 x 6 Single Family Homes = 36  
Total Homes Necessary

Total Homes Necessary 36 x Average Home Costs \$ 515,000

= Estimated Land Acquisition Costs \$ 18,540,000

F. Infiltration Trenches

The TMDL anticipates the installation of infiltration trenches in 30% of the urbanized watershed. Using the total acreage on Page One, please perform the following calculations:

Infiltration Construction Costs

Total Square Miles in Watershed 1.6 x 640 acres per square mile = Total Acres in Watershed 1,024 Acres

Total Acres in Watershed 1024 x 0.30 = 307 Acres for Infiltration

Acres for Infiltration Trenches 307 / 5 acres per Trench = Number of Trenches 61

Number of Trenches 61 x \$102,656 (2005 dollars) \* = Total

Construction Costs of Infiltration Trenches \$ 6,262,000 (rounded)

\* The TMDL anticipates the construction of infiltration trenches to serve 5-acre drainage areas within 30% of the urbanized watershed. The per acre Adjusted Caltrans Estimate is from Section 7.4.2 of the San Gabriel River Metals and Selenium TMDL staff report and is based on one-year, 24-hour storm event. This design number is greater than the SUSMP requirement, but less than the TMDL requirement to comply with water quality objectives for any sized storm event. This construction cost number was "peer reviewed" during the Caltrans BMP Pilot Retrofit Program in January of 2004. There may be costs savings if projects are grouped and constructed together. However, these costs savings may be negated by the increase in construction costs, since the Caltrans pilot projects were constructed for smaller facilities, instead of larger and more complex subwatersheds.

Infiltration Trench Land Acquisition Costs (Residential)

The TMDL does not discuss the appropriate size of the retention areas, based on the requirement that all rain events be planned for. This cost estimate relies upon the "Preliminary Data Summary of the Urban Storm Water Best Management Practices - EPA-821-R-99-012, August 1999) in order to correctly size the retention areas for a 5-acre retention facility. EPA assumes that 35% of the average urban watershed is impervious. However, analysis of the data in the model used by the Regional Board to simulate wet-weather metals loading from the San Gabriel River watershed indicates that the average imperviousness of the non-forest part of the watershed is 45%. Table 9-6 of the EPA report assumes the land required for an infiltration trench and retention basin is 2%-3% of the impervious area in the drainage. We suggest using a 3% factor to allow for

San Gabriel River Metals TMDLs  
Cost Estimation Work Sheet  
Page 6

access and maintenance areas, as well as variable infiltration rates due to soils in a subwatershed. At 3%, the land required for infiltration trenches and equalization basins to capture and slowly release large storms to serve a 5-acre subwatershed that is 45% impervious would be .07 acres.

Infiltration Trenches would be located in residential, commercial and office neighborhoods. The following analysis relates to locating infiltration trenches in single-family residential neighborhoods. It is reasonable to assume that a significant portion of infiltration trenches will be located in residential neighborhoods, since the TMDL assigns high metals loads to these areas. Single-family homes are also more cost-effective to purchase, as compared to multi-family and commercial uses, yielding more land per costs for the trenches. We have assumed average residential lots of 5,000 square feet in size.

0.07 acres = 3,094 square feet / 5,000 square feet = 1 Single-Family Homes

Number of Infiltration Trenches 61 x 1 Single-Family Homes =  
61 Total Homes Necessary

Total Homes Necessary 61 x Average Home Costs \$ 515,000

= Estimated Land Acquisition \$ 31,415,000

Note: Infiltration Trenches are not recommended where the groundwater table is high. Therefore depending on historical ground water depths, other devices may be needed in our City in lieu of infiltration trenches. This estimate follows the Regional Boards implementation plan that included infiltration trenches.

G. Relocation Assistance

The Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (URA) requires relocation assistance for homeowners when local government agencies purchase a home for Federal projects and for which federal funds are used. Similar State and local relocation assistance rules apply for non-federal funded projects. These payments include actual reasonable moving expenses or fixed moving expenses, purchase and rental assistance. Some cities pay greater benefits, however this analysis relies on the minimum payments required for owner-occupied single-family homes. This analysis relies on the \$22,500 housing assistance payment contained in State law, which should be considered low.

Total Number of Homes Required

Filters 36 x \$22,500 = \$ 810,000

San Gabriel River Metals TMDLs  
Cost Estimation Work Sheet  
Page 7

Trenches 61 x \$22,500 = \$ 1,372,500

Total Estimated Minimum Relocation Assistance \$ 2,182,500

H. Program Costs

The Regional Board provided no cost increases, however we believe that additional technical staff will be necessary to oversee the studies, non-structural programs and capital improvement program necessary. Costs range from \$90,000 to \$120,000 annually.

I. Operations and Maintenance Costs

The infiltration trenches and sand filters will require additional maintenance costs during and after storm events. Public Works crews will be required to clear debris and prevent flooding to surrounding properties. We average 32 rainfall days in the watershed annually. Caltrans "peer reviewed" annual maintenance costs were \$2,910 per Austin Sand Filters. Annual costs for infiltration trenches were estimated at \$612 per trench.

Number of Filters 6 x \$2,910 = Annual O & M Costs \$ 17,460

Number of Trenches 61 x \$612 = Annual O & M Costs \$ 37,332

Total O & M \$ 54,792

**Summary of TMDL Costs**

A. Cost of Studies – One Time

Estuary Study (Reach 1 Cities)	\$100,000
Water Quality Monitoring (set up)	\$22,291
Annual Monitoring (Five Years)	\$70,625
Copper SSO	\$20,750
Atmospheric Deposition	\$12,290
Storm Flow Sampling	\$11,041
BMP Effectiveness	\$17,354

Total Studies \$254,351

B. Street Sweeping Upgrades (Annual) \$ 64,000

C. Increased Catch Basin Cleaning (Annual) \$ -0-

**San Gabriel River Metals TMDLs  
Cost Estimation Work Sheet  
Page 8**

D. Dry Weather Diversions/ Compliance	Unavailable
E. Sand-Filter Costs	
Construction Costs	\$ <u>1,115,000</u>
Land Acquisition Costs	\$ <u>18,540,000</u>
Total Costs	\$ <u>19,655,000</u>
F. Infiltration Trench Costs *	
Construction Costs *	\$ <u>6,262,000</u>
Land Acquisition Costs *	\$ <u>31,415,000</u>
Total Costs *	\$ <u>37,677,000</u>
G. Minimum Relocation Assistance	\$ <u>2,182,500</u>
H. Program Costs (Annual)	\$ <u>120,000</u>
I. Maintenance Costs (Annual)	\$ <u>54,792</u>
Total Number of Single-Family Homes Acquired for TMDL	<u>97</u>
Grand Total Cost over 15 year program	\$ <u>63,096,380</u>

**Comments on Cost Estimate Results:**

1. The Metals TMDL assumes that 50 % of the cost will be spent within the first five years of the program. Using the results of this estimate would mean that the City of Artesia would need to spend over \$30,000,000 in the first five years. That would mean an un-funded expenditure of over \$6,000,000 per year.
2. As mentioned the above estimate does not include costs for dry weather diversions or even the studies that would need to be completed in order to evaluate the viability of such diversion in Artesia. Secondly, accomplishing the diversions will likely require improvements to direct storm drain flows into sanitary sewers.
3. The cost of the sand filters and/or filter trenches does not include additional storm drain lines that may be needed to route flows from a particular 50 acre watershed into and sometimes out of the sand filter.
4. The land acquisition does not include costs of condemnation proceedings that will likely be necessary where existing homeowners are unwilling to sell their land to the City. It also doesn't account for the loss of housing and good will. Any city would likely want to acquire the least costly homes and therefore such an approach would result in a loss of available affordable housing.
5. There may well be other maintenance costs as the property where the sand filters are located may need to have landscaping and irrigation for screening, and fencing, lighting, etc. for security. Even so the sand filter locations can be anticipated to be considered a nuisance by the neighboring properties.
6. This estimate does not include cost due to future inflationary factors.
7. Due to the above items and caveats noted in the body of the estimate one can safely assume that the true costs of compliance with the proposed San Gabriel River Metals TMDL may well be significantly higher than this estimate.

**ATTACHMENT "2"**  
**MEDIAN HOUSING VALUES**

**Median Housing Values**  
**April 2006**  
**Single Family Homes in the San Gabriel River Watershed**

Los Angeles County

<u>City</u>	<u>Median Housing Value</u>
Arcadia	\$740,000
Artesia	\$515,000
Azusa	\$410,000
Baldwin Park	\$410,000
Bellflower	\$519,000
Cerritos	\$678,000
Claremont	\$540,000
Covina	\$500,000
Diamond Bar	\$535,000
Downey	\$663,000
Duarte	\$463,000
El Monte	\$449,500
Glendora	\$523,750
Hacienda Heights	\$595,000
Hawaiian Gardens	\$447,000
La Habra Heights	\$1,005,000
La Mirada	\$557,000
La Puente	\$445,000
La Verne	\$592,000
Lakewood	\$540,000
Long Beach	(not included)
Monrovia	\$560,000
Norwalk	\$447,000
Paramount	\$458,000
Pico Rivera	\$490,000
Pomona	\$415,000
San Dimas	\$550,000
South El Monte	\$429,000
Santa Fe Springs	\$529,000
Signal Hill	\$745,000
Walnut	\$658,000
West Covina	\$500,000
Whittier	\$512,000

Los Angeles County Median Housing Price - \$567,480

Source: Association of Realtors and Data Quick



# **ATTACHMENT B**



Posted on: Sunday, July 30, 2006

## Pollution from China drifting east

By TERENCE CHEA  
Associated Press

MOUNT TAMALPAIS STATE PARK, Calif. — On a mountaintop overlooking the Pacific Ocean, Steven Cliff collects evidence of an industrial revolution taking place thousands of miles away.

The tiny, airborne particles Cliff gathers at an air monitoring station just north of San Francisco drifted over the ocean from coal-fired power plants, smelters, dust storms and diesel trucks in China and other Asian countries.

Researchers say the environmental impact of China's breakneck economic growth is being felt well beyond its borders. They worry that as China consumes more fossil fuels to feed its energy-hungry economy, the U.S. could see a sharp increase in trans-Pacific pollution that could affect human health, worsen air quality and alter climate patterns.

"We're going to see increased particulate pollution from the expansion of China for the foreseeable future," said Cliff, a research engineer at the University of California-Davis.

He has monitoring stations on Mount Tamalpais, Donner Summit near Lake Tahoe, and Mount Lassen in far northern California. Those sites see little pollution from local sources, and the composition of the dust particles matches that of the Gobi Desert and other Asian sites, Cliff said.

About a third of the Asian pollution is dust, which is increasing drought and deforestation, Cliff said. The rest is composed of sulfur, soot and trace metals from the burning of coal, diesel and other fossil fuels.

Cliff is studying whether transported particulate matter could affect climate by trapping heat, reflecting light or changing rainfall patterns.

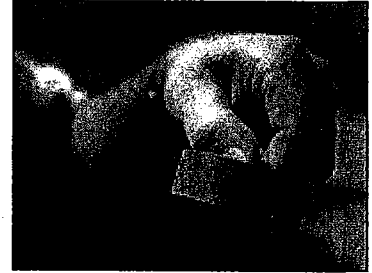
Most air pollution in U.S. cities is generated locally, but that could change if citizens in China, India and other developing nations adopt American-style consumption patterns, researchers say.

"If they started driving cars and using electricity at the rate in the developed world, the amount of pollution they generate will increase many, many times," said Tony Van Curen, a UC-Davis researcher who works with Cliff.

The U.S. Environmental Protection Agency estimates that on some days nearly 25 percent of the particulate matter in the skies above Los Angeles are from China. Some experts predict China may one day account for a third of all California's air pollution.

Dan Jaffe, an atmospheric scientist at the University of Washington, said he has detected ozone, carbon monoxide, mercury and particulate matter from Asia at monitoring sites on Mount Bachelor in Oregon and Cheeka Peak in Washington state.

"There is some amount of the pollution in the air we breathe coming from halfway around the world," Jaffe said. "There ultimately is no 'away.' There is no place where you can put away your pollution anymore."



Researcher Steven Cliff says the condition of health and air quality in the United States could worsen as China continues to grow.

ERIC RISBERG | Associated Press



Researcher Steven Cliff monitors pollutants in the air at Mount Tamalpais State Park in California. Cliff often collects particles that originate in Asian countries, especially China.

ERIC RISBERG | Associated Press

China's environmental problems are severe and getting worse. Nearly 30 years of relentless industrial expansion has fouled the country's water, land and sky.

The World Bank estimates that 16 of the world's 20 most polluted cities are in China, and air pollution is blamed for about 400,000 premature deaths there each year.

Coal-fired power plants supply two-thirds of China's energy and are its biggest source of air pollution. Already the world's largest producer and consumer of coal, China on average builds a new coal-fired power plant every week.

Meanwhile, car ownership is soaring as the country's economy grows about 10 percent a year, contributing carbon dioxide and other greenhouse gases linked to global warming.

If current trends continue, China will surpass the U.S. as the world's largest emitter of greenhouse gases in the next decade, said Barbara Finamore, who heads the Natural Resources Defense Council's China Clean Energy program, which is helping the country boost its energy efficiency.

"China's staggering economic growth is an environmental time bomb that, unless defused, threatens to convulse the entire planet regardless of progress in all other nations," Finamore said.

Even Chinese environmental officials warn that pollution levels could quadruple over the next 15 years if the country doesn't curb energy use and emissions. Beijing plans to spend \$162 billion on environmental cleanup over the next five years, but the scale of the country's pollution problems is immense.

"When you look at China's population growth and industrial growth, it's hard to imagine how air quality could improve in the near future," said Ruby Leung, a researcher at the Energy Department's Pacific Northwest National Laboratory in Richland, Wash., which collaborates with Chinese government scientists on atmospheric research.

Earlier this year, Leung and her colleagues published a study that found particulate pollution has darkened China's skies over the past 50 years by absorbing and deflecting the sun's rays.

China's pollution also regularly dirties the air in neighboring South Korea and Japan, but until recently researchers didn't think it had much effect on North America.

## **Back**

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# **ATTACHMENT C**

**boston.com**

THIS STORY HAS BEEN FORMATTED FOR EASY PRINTING

## **Booming Chinese economy threatens Calif. air Pollution makes its way across Pacific**

**The Boston Globe**

By Terence Chea, Associated Press | July 29, 2006

MOUNT TAMALPAIS STATE PARK, Calif. -- On a mountaintop overlooking the Pacific Ocean, Steven Cliff collects evidence of an industrial revolution taking place thousands of miles away.

The tiny, airborne particles Cliff gathers at an air-monitoring station just north of San Francisco drifted over the ocean from coal-fired power plants, smelters, dust storms, and diesel trucks in China and other Asian countries.

Researchers say the environmental impact of China's breakneck economic growth is being felt well beyond its borders.

They worry that as China consumes more fossil fuels to feed its energy-hungry economy, the United States could see a sharp increase in trans-Pacific pollution that could affect human health, worsen air quality, and alter climate patterns.

Cliff, a research engineer at the University of California, Davis, has monitoring stations on Mount Tamalpais, Donner Summit near Lake Tahoe, and Mount Lassen in Northern California. Those sites see little pollution from local sources, and the composition of the dust particles matches that of the Gobi Desert and other Asian sites, Cliff said.

About a third of the Asian pollution is dust, which is increasing due to drought and deforestation, Cliff said. The rest is composed of sulfur, soot, and trace metals from the burning of coal, diesel, and other fossil fuels.

Most air pollution in US cities is generated locally, but that could change if citizens in China, India, and other developing nations adopt American-style consumption patterns, researchers say.

The US Environmental Protection Agency estimates that on certain days nearly 25 percent of the particulate matter in the skies above Los Angeles can be traced to China.

Some specialists predict China could one day account for a third of all California's air pollution.

China's environmental problems are severe and getting worse. Nearly 30 years of relentless industrial expansion has fouled the country's rivers, lakes, forests, farmland, and skies.

The World Bank estimates that 16 of the world's 20 most polluted cities are in China, and air pollution is blamed for about 400,000 premature deaths there each year.

Meanwhile, car ownership is soaring as the country's economy grows about 10 percent a year, contributing carbon dioxide and other greenhouse gases linked to global warming.

If current trends continue, China will surpass the United States as the world's largest emitter of greenhouse gases in the next decade, said Barbara Finamore, who heads the Natural Resources Defense Council's China Clean Energy program, which is helping the country boost its energy efficiency.

"China's staggering economic growth is an environmental time bomb that, unless defused, threatens to convulse the entire planet regardless of progress in all other nations," Finamore said.

Even Chinese environmental officials warn that pollution levels could quadruple over the next 15 years if the

country doesn't curb energy use and emissions. Beijing plans to spend \$162 billion on environmental cleanup over the next five years, but the scale of the country's pollution problems is immense.

China's pollution also regularly dirties the air in neighboring South Korea and Japan, but until recently researchers didn't think it had much effect on North America.

US scientists have recently found that Asian pollution is consistently transported across the Pacific on air currents. It can take anywhere from five days to two weeks for particles to cross the ocean.

China's environmental challenges are daunting, but the country is taking action to reduce its energy use and air pollution, said NRDC's Finamore. Beijing has set ambitious goals for increasing energy efficiency, fuel economy standards and use of renewable power sources such as wind and solar, she said.

"There are tremendous opportunities for China to slow the amount of pollution it pumps in the air," Finamore said. ■

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