

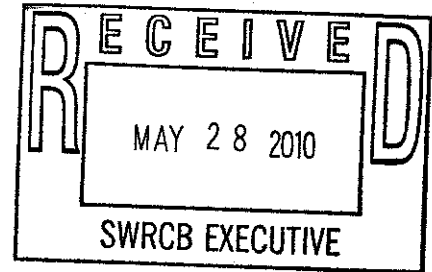


**Santa Clara Valley
Urban Runoff
Pollution Prevention Program**

Campbell • Cupertino • Los Altos • Los Altos Hills • Los Gatos • Milpitas • Monte Sereno • Mountain View • Palo Alto
San Jose • Santa Clara • Saratoga • Sunnyvale • Santa Clara County • Santa Clara Valley Water District

Submitted via email on May 28, 2010

Ms. Jeanine Townsend
State Water Resources Control Board
1001 I Street
Sacramento, CA 95814



Re: Proposed Adoption of the 2010 303(d) List of Water Quality Limited Segments

Dear Ms. Townsend:

This letter is submitted on behalf of the Santa Clara Valley Urban Runoff Pollution Prevention Program (SCVURPPP or Program) regarding the State of California's *2010 303(d) List of Water Quality Limited Segments*. The SCVURPPP is an association of 13 cities and towns¹ in the Santa Clara Valley, the Santa Clara County and the Santa Clara Valley Water District. Program participants are regulated under a common NPDES permit to discharge municipal stormwater to South San Francisco Bay.

The Program appreciates the opportunity to submit comments regarding the proposed 2010 303(d) list. Our comments are focused on the proposed listing of nine water bodies located in the Santa Clara Valley. As a municipal stormwater program that may be impacted by the State's proposed actions, we take the listing proposals very seriously. Based on experience stemming from previously adopted 303(d) lists, it is highly likely that additional local resources will be required to implement municipal stormwater management and monitoring programs if the new proposed 303(d) listings go forward. Therefore, as public agencies, we must ensure that the listings make sense so that future resources are focused on real and high priority water quality problems.

Through the public comment process, we provided written comments (December 2009) and oral testimony (January 2010) to the San Francisco Bay Regional Board. During this process major issues were identified by SCVURPPP and acknowledged by the Water Board members, but largely ignored by Regional Board staff. Therefore, we resubmit our comments that explain these major issues and describe the ramifications of adopting the 2010 303(d) list of water quality limited segments as proposed.

¹ Campbell, Cupertino, Los Altos, Los Altos Hills, Los Gatos, Milpitas, Monte Sereno, Mountain View, Palo Alto, San Jose, Santa Clara, Saratoga and Sunnyvale

Specifically, we draw your attention to one major issue in particular - The proposed listings are overbroad to the extent that they are derived from an extrapolation of site-specific data to entire water bodies and do not consider submitted data that contradict the listing. We request that this issue be reconciled before the proposed 2010 303(d) list is adopted by the State Board. Not doing so will require local municipalities to conduct numerous costly studies and water quality monitoring to disprove a listing that is based on limited site-specific data that have been erroneously extrapolated to entire waterbodies.

Please contact me or Chris Sommers at 510832-2852 if you have questions regarding these of the previously submitted comments or suggested changes. We look forward to continuing to work with you further.

Sincerely,



Adam Olivieri, Dr. PH, P.E.
SCVURPPP Program Manager

cc: Bruce Wolfe, SFB Water Board
Tom Mumley, SFB Water Board
Alexis Strauss, US EPA Region 9
SCVURPPP Management Committee



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Submitted via email and hard copy on December 4, 2008

Ms. Barbara Baginska
San Francisco Bay Regional Water Quality Control Board
1515 Clay Street, Suite 1400
Oakland, CA 94612

Re: Proposed Revisions to the 303(d) List of Impaired Water Bodies in the San Francisco Bay Region

Dear Ms. Baginska:

This letter is submitted on behalf of the Santa Clara Valley Urban Runoff Pollution Prevention Program (SCVURPPP or Program) regarding the *2008 Revision of the Clean Water Act Section 303(d) List of Water Quality Limited Segments*. The SCVURPPP is an association of 13 cities and towns¹ in the Santa Clara Valley, the Santa Clara County and the Santa Clara Valley Water District. Program participants are regulated under a common NPDES permit to discharge municipal stormwater to South San Francisco Bay. Since its inception, SCVURPPP has been a recognized leader in stormwater management and monitoring in the San Francisco Bay region, and continues to be dedicated to improving the quality of our water bodies.

The Program appreciates the opportunity to submit comments regarding the proposed 2008 revisions to the 303(d) list for the State of California. Our comments are focused on the proposed listing of nine water bodies located in the Santa Clara Valley. As a municipal stormwater program that may be impacted by the State's proposed actions, we take the listing proposals very seriously. Based on experience stemming from previously adopted 303(d) lists, it is highly likely that additional local resources will be required to implement municipal stormwater management and monitoring programs if the new proposed 303(d) listings go forward. Therefore, as public agencies, we must ensure that the listings make sense so that future resources are focused on real and high priority water quality problems.

Our comments address important issues we feel must be reconciled before any proposed revisions to the 303(d) list are adopted by the Regional Water Board. They are organized into the following four categories:

1. General Comments for all Pollutant Listings;
2. General Comments on the Proposed Trash Listings (includes brief summary on the development and implementation of trash assessments by SCVURPPP Co-permittees);

¹ Campbell, Cupertino, Los Altos, Los Altos Hills, Los Gatos, Milpitas, Monte Sereno, Mountain View, Palo Alto, San Jose, Santa Clara, Saratoga and Sunnyvale

3. Watershed Specific Comments on Proposed Trash Listings;
4. Comments on Proposed Listings for Other Pollutants

GENERAL COMMENTS FOR ALL POLLUTANTS

1. **The Proposed Listings Are Overbroad to the Extent They are Derived from an Extrapolation of Site-Specific Data to Entire Water Bodies.** A large majority of the data points used as lines of evidence for proposing 303(d) listings were taken from one spot in a creek that is part of a much larger and heterogeneous system of channels, which flow miles through changing habitats and watershed land uses. Most riverine scientists, water quality engineers/specialists and statisticians acknowledge that site specific data based on a targeted sampling design can not reliably be extrapolated to entire water bodies. Spatial heterogeneity in the physical, chemical and biological characteristics of creeks is the primary reason for this. Therefore, the proposed listing of entire water bodies based on data collected from a very limited number of sites is highly questionable and should be reconsidered.

At a minimum, we request that the proposed listings be limited specifically to the particular sites or reaches of the water body where water quality data were collected. This will allow more focused and site specific monitoring, studies and management actions to occur, rather than assuming without an adequate factual basis that all reaches within creeks are impacted and not supporting beneficial uses.

2. **The Proposed Listings Neglect to Address Temporal Considerations.** Similar to the issue described above, temporal considerations must also be taken into account when evaluating creek monitoring and assessment information. It is well established from previous data submissions that water quality in Santa Clara Valley creeks can have a high degree of temporal variability, which confounds accurate understanding of whether a water body is truly impacted or impaired. Additionally, management actions taken following the date of collection of monitoring and assessment data have likely improved the condition of some water bodies proposed for listing, potentially to the point of rendering such proposed listings unnecessary. For example, during trash assessments litter is removed from the assessed reach following the tallying of trash items. As illustrated by subsequent improvements in trash assessment scores, at many sites the number of trash items has decreased significantly since litter was removed during the initial assessment. In other cases municipalities have initiated enhanced trash management programs after the listing data were collected, and improvements in assessment scores have been documented. In either circumstance, only data representing "current," post-management action, conditions should be used in determining whether there is a degree of impairment necessitating a new 303(d) listing. This will prevent unnecessary and inaccurate impairment listings from going forward based on out-of-date lines of evidence.

Due to the apparent lack of consideration of temporal variability and the effect of implementation of management actions following initial data collection, we request that Water Board staff fully consider the temporal representativeness of data used and revise the proposed listings accordingly. We also request that the trash assessment data collected during initial evaluations be removed from the dataset used to assess the conditions of creek reaches, and the proposed listings be revised accordingly.

3. **The Proposed Listings are Flawed due to the Omission of SCVURPPP Water Quality Data.** As requested through the Water Board's Public Solicitation for Water Quality Information, the SCVURPPP submitted water quality data collected from 2002 to 2007 during the implementation of SCVURPPP's Multi-Year Receiving Waters Monitoring Plan (See Attachment A). However, these water quality data were not included in the review (see Appendix B of the Proposed Listing Recommendations) and therefore have not been adequately considered and taken into account in terms of the proposed listings. This dataset represents total and dissolved metal concentrations and aquatic toxicity results from

hundreds of water samples taken at roughly 70 creek/river sites in the Santa Clara Valley over a 5-year timeframe.

Due to this oversight and the potential ramification of not considering these data when developing the listing recommendations, we request that: 1) SCVURPPP's data be added to the dataset for which the proposed listings are based (and replace older, outdated data where applicable); 2) the listing recommendations be revised (as needed) based on the inclusion SCVURPPP data; and 3) the new listing recommendations be re-released for public comment.

4. **The Proposed Listings are Overbroad to the Extent that they Fail to Evaluate the Effect of Anticipated Control Measures.** The proposed listings appear to erroneously assume that the (sometimes already outdated) measured conditions on which they are based are static and not subject to change based on the application of technology-based control measures to the water segments in question, such as those being contemplated for inclusion in the new Municipal Regional Permit (MRP) governing stormwater discharges throughout most of the Bay Area. Not only does this ignore real world data reflecting improved conditions where such control measures have been applied (see subsection 3 above), it appears to be contrary to the Clean Water Act's prescription for 303(d) listings, which expressly provides: "Each State shall identify those waters within its boundaries for which the effluent limitations required by section 301(b)(1)(A) and section 301(b)(1)(B) are not stringent enough to implement any water quality standard applicable to such waters." Accordingly, where the proposed listings have not accounted for full implementation of economically reasonable and technically feasible control measures, including those that are under current consideration for the MRP, they should be deferred for a future triennial review, i.e., until the effect and sufficiency of such measures in addressing water quality conditions can be evaluated based on real world data obtained post-implementation of technology-based controls.
5. **The Water Board Needs to Analyze the Potential Environmental Impacts of the Proposed Listings and Assess the Technical Feasibility and Economic Reasonableness of Applying their Associated Water Quality Standards to Stormwater Before Proceeding.** The Water Board's staff report accompanying the proposed listings does not appear to contain any analysis of the potential environmental impacts of this proposed action or otherwise to have addressed the requirements of the California Environmental Quality Act. It also does not address the technical feasibility or economic reasonableness of applying the water quality standards at issue to stormwater (and particularly municipal stormwater) discharges and the water quality standards in question have not previously been revised to consider such issues as the recent *Cities of Arcadia, et al.* decision makes clear is required by the Water Code.

PROPOSED LISTING OF CREEKS AND SHORELINES FOR TRASH

Background and General Comments

The following background information is provided to summarize our understanding of the process used by Water Board staff to evaluate trash assessment data and photographic evidence submitted. This contextual information is followed by specific comments regarding the proposed listing of Santa Clara creeks and shorelines for trash impairment.

The Regional Water Board is proposing to place nine creeks within SCVURPPP's program area on the 303(d) list for impairment by trash. These include Coyote Creek, Guadalupe River, Lower Silver Creek, Matadero Creek, Permanente Creek, Saratoga Creek, San Tomas Aquino Creek, Stevens Creek, and San Francisquito Creek. Water Board staff used two lines of evidence to assess trash impairment. The first line of evidence consisted of trash assessment data using either the Rapid Trash Assessment methodology, developed by Water Board staff for the Surface Water Ambient Monitoring Program (SWAMP), or the Urban Rapid Trash Assessment (URTA)

methodology, developed by the SCVURPPP². The second line of evidence consisted of inspection of photographic evidence by Water Board staff and applying the RTA methodology to develop scores for Parameters 1 (Level of Trash) and 3 (Threat to Aquatic Life) for each site.

Water Board staff developed thresholds for RTA/URTA Parameters 1 and 3 to evaluate potential impairment of trash to REC-2 and WILD Beneficial Uses, respectively. The REC-2 Use was deemed not supported when RTA/URTA Parameter 1 was in the "poor condition category" (scores 0-5)³. The WILD Use was deemed not supported when RTA Parameter 3 was in the "poor condition category" (scores 0-5), which corresponds to greater than 50 pieces of "transportable, persistent and buoyant" litter identified at assessment site. Additionally, the WILD Use was deemed not supported when URTA Parameter 3 (Transportable, Persistent, Buoyant Litter) was in the "marginal" or "poor condition category" (scores 0-10), which corresponds to greater than 75 pieces of "transportable, persistent and buoyant" litter identified at assessment site. Water Board staff also used the thresholds established for the RTA methodology to evaluate photographic evidence.

6. RTA Data Does Not Provide an Accurate Basis for Assessing Impairment and Overemphasizes Worst Case/High Problem Area Conditions. Storm Water Programs initiated a review of the Water Board RTA Protocol in September 2002 when SCVURPPP and San Mateo Countywide Water Pollution Prevention Program (SMCWPPP) funded a pilot study to implement and test the RTA (Version 6.0) at selected stream locations in Santa Clara and San Mateo County. Conclusions from the pilot study indicate that there is no clear linkage between the type and number of trash items in a creek site to the impact on aquatic life use, and therefore the number of specific types of trash items is not a good basis for an assessment of relative impacts. The memorandum recommended modifications to the RTA protocols and described how these revisions could be incorporated as an "urban management version" of the protocols.

In 2003, the Water Board developed a revised RTA Protocol (Version 7.0). In addition, the Water Board developed a memorandum entitled *Evaluation of the Rapid Trash Assessment Methodology* (dated October 20, 2003) that stated that the Water Board RTA Protocol (Version 7.0) is "less sensitive at the low end of the scoring range, corresponding to conditions commonly observed in the lower watersheds of urbanized areas." Furthermore, the memorandum went on to say that "it is difficult (for the RTA) to distinguish conditions at trash hotspots." Since these trash problem areas are of most interest to cleanup programs sponsored by local organizations and agencies, the Water Board indicated that "a separate hotspot evaluation methodology may need to be developed."

In 2004, SCVURPPP Co-permittees initiated trash assessments using the RTA (Version 7.0) at previously documented trash problem areas. Four main objectives were identified by the Trash Ad Hoc Task Group (TAHTG) for implementation of the RTA Version 7.0 in technical memorandum titled *Implementing Existing Trash Assessment Tools* (July 20, 2004). These included:

- Establishing baseline levels of trash at specific site during selected index periods;
- Identifying and prioritizing trash problem areas;
- Identifying potential sources of trash and appropriate management activities; and
- Evaluating the effectiveness of existing trash management practices.

The TAHTG agreed that conducting rapid trash assessments only at trash problem areas may result in low scores since they are presumed to be the worst sites. The assessment approach was intended to use the RTA to identify, prioritize and evaluate trash management activities over time at selected trash problem areas. The SCVURPPP Co-permittees did not

² The URTA is a revised version of the RTA that is more applicable to "urban" creeks.

³ There is no difference in scoring of Parameter 1 for the RTA or URTA.

intend nor develop a sampling design with the goal of determining overall trash condition or potential impairment for urban creeks.

Given the above, we question the propriety and accuracy of concluding impairment exists in, and particularly throughout, the nine Santa Clara creeks proposed for listing based on RTA scores reflecting pre-selected, worst case, particularly problematic conditions (i.e., a so-called biased sample in scientific terms). Given the original intent of conducting trash assessments in Santa Clara Valley urban creeks, at a minimum, we request that the proposed listings be limited specifically to the particular sites or reaches of the water body where trash assessments were conducted. In addition to being more supportable, this will allow more focused and site specific monitoring, studies and management actions to occur, rather than erroneously assuming based on biased evidence that all reaches within creeks are impacted and not supporting beneficial uses.

- 7. The Methods for Underlying the Proposed Listings Have Neither Been Scientifically Validated or Subject to Peer and Public Review.** Our understanding is that the RTA/URTA methodologies (field and photographs) were used to interpret narrative water quality objectives (WQOs) related to trash impairment. However, this highly subjective methodology is necessarily flawed (see above) and somewhat arbitrary; moreover, no public process was conducted to evaluate the scientific basis for using the RTA/URTA methods to determine trash impairment. This process would include subjecting to both peer review and public scrutiny whether these methodologies are scientifically defensible and reproducible for establishing impairment as described in Section 3.11 Situation-Specific Weight of Evidence Factor of Water Quality Control Policy for Developing California's Clean Water Act Section 303(d) List (Water Board 2004). Specifically:
- a. Methods and data used in the impairment evaluation need to satisfy requirements described under Section 6.1.4 (Data Quality) and Section 6.1.5 (Data Quantity) of Water Board (2004). Standards for data quality and quantity should also be developed before using these methods and data to evaluate impairment.
 - b. Data quality issues are apparent when using photographic evidence to represent field conditions, which compromises the meaningful application of this information. These methods used by Water Board staff to develop RTA scores from photographic evidence should be fully evaluated by an objective third party to assess how defensible and reproducible they are. This evaluation should be conducted prior to using information rendered from these methods to determine exceedances of water quality standards.
 - c. The subjectivity in RTA/URTA Parameter #1, (Qualitative level of trash) should be fully evaluated prior to using as a line of evidence for 303(d) listings. Interpretation of "high", "medium" and "low" levels of trash is inherently highly subjective and varies among different field staff conducting the assessments.
 - d. The (vertical) extent of the creek area used to evaluate impairment by trash should be reconsidered prior to adopting the 303(d) list. The RTA and URTA methodologies identify and give equal weight to trash items found above and below the creek high water line. It is highly likely that trash items above the high water line were not impacting the water body at the time of the assessment and therefore should not be included in evaluation of impairment. Accordingly, at a minimum, we specifically request that trash items counted above the high water line be removed from the data used to establish listings and revisions to the proposed listings be revised.

- 8. The Thresholds Used to Define When Impairment is Present Are Arbitrary and Fail to Account for Site Specific Conditions.** The number of total "transportable and persistent" trash items (Parameter 3) used to define impairment is arbitrarily set at ≥ 50 for the RTA and ≥ 76 for the URTA. These thresholds are inconsistent and have no linkage to actual impacts to the water body. It is essential that a scientifically defensible basis be provided for relating the total number and types of trash items to impairment of aquatic life Beneficial Uses. We request that listings based on Parameter #3 be removed until the RTA/URTA methodologies and associated criteria defining impairment conditions can be better evaluated and results can be linked to documented impacts to uses.
- 9. The Shoreline Listings for Trash are Vague, Overbroad and Require More Specific Definition.** The geographical extent of the proposed listing for San Francisco Bay Lower and Central shorelines is currently unclear. The proposed trash impairment listings were based on photographic evidence from only a few shoreline locations and cannot be properly extrapolated more broadly due to local hydro-geologic conditions. Additionally, how these "shoreline" areas (whatever they are) and their uses are distinguished from marshes and mudflat areas (which have their own defined Beneficial Uses) has not been defined in the Basin Plan. The geographic definition and extent of "shorelines" should therefore be clarified through a Basin Plan amendment before these listings proceed, assuming there is a basis for listing such large areas using the very limited available photographic evidence.

Watershed-Specific Comments

- 10. The Proposed Listing of Coyote Creek is Over Broad and Premature Given the Limitations of Existing Data; At a Minimum, the Listing Should be Geographically Restricted Given the Limits of Existing Evidence.** Existing URTA data and photographic evidence was primarily collected in highly urban areas associated with roadways and homeless camps. Although these sites had high levels of trash, uncertainty still remains as to the extent and magnitude of trash problems for the entire mainstem, especially non-urban areas (e.g., Coyote Valley). Additionally, existing trash assessment data, including photographic evidence, is based on a single assessment conducted at each site. Repeated assessments over time are needed to evaluate the chronic nature of trash at these sites and whether technology-based controls will be sufficient to address the potential issue at them.
- 11. The Proposed Listing of the Guadalupe River is also Overbroad and Should at least be Geographically Restricted.** Similar to Coyote Creek, existing URTA data and photographic evidence was primarily collected in highly urban areas associated with roadways and homeless camps. Although these sites had high levels of trash, uncertainty still remains as to the extent and magnitude of trash problems for the entire mainstem, especially in the upper reaches below Almaden Reservoir, as well as the potential efficacy of technology-based control measures.
- 12. The Proposed Listing of Lower Silver Creek is Contrary to the Weight of Evidence and Not Otherwise Adequately Supported or Geographically Restricted.** Existing URTA data were collected at three sites located within an approximate 5-mile reach between the confluence with Coyote Creek and Lake Cunningham. Water Board impairment threshold for Parameter 3 was not met at two of the sites. Existing data is based on a single trash assessment at each site. As a result, there is uncertainty whether trash is persistent at each site and whether technology-based controls may be sufficient in preventing impairment. Assessment sites were widely distributed in the subwatershed to represent range of land uses and channel characteristics.
- 13. The Proposed Listing of Matadero Creek is Overbroad and Based on Marginal Data that is Too Limited and Unrepresentative.** Existing URTA data were collected at two sites that were located approximately 500 feet apart, located in the low gradient reach adjacent to Highway 101. The Water Board impairment threshold for Parameter 3 was exceeded during

two assessments conducted at one of the two sites. Trash assessment data are not available between Highway 101 and the headwaters, a distance of approximately 6 miles in length. As a result, existing URTA data are not representative of the range of trash conditions found in Matadero Creek.

- 14. The Proposed Listing of Permanente Creek is Far Too Overbroad.** Existing RTA data were collected at one location in the low gradient reach just above tidally influenced area. Water Board impairment threshold for Parameter 3 was exceeded during four assessments conducted at one site. Data are not available for reaches between Highway 101 and headwaters, a distance of approximately 10 miles. A majority of this area drains single-family residential areas in the middle reaches, and open space in the upper reaches, which are likely not sources areas for trash. As a result, existing URTA data are not representative for the range of conditions found in Permanente Creek.
- 15. The Proposed Listing of San Francisquito Creek Lacks Sufficient Specificity and Supporting Evidence for the Majority of its Reaches.** Existing URTA data were collected at five locations within an approximately 4-mile reach between El Camino Real and Highway 101. Water Board impairment thresholds were not met for Parameter 1 during 7 assessments and for Parameter 3 during 5 assessments. The upper two sites did not meet Water Board guidelines during the initial assessment and subsequent assessments received scores that were below impairment thresholds, indicating potential low rates of trash accumulation at these sites. The remaining "exceedences" of the thresholds occurred at the lower two sites, approximately 1 mile upstream of Highway 101. Trash assessment data are not available between El Camino Real and the headwaters, a distance of approximately 10 miles in length. As a result, existing URTA data is not representative for the range of trash conditions found in San Francisquito Creek, especially in the upper non-urban reaches of the creek.
- 16. The Proposed Listing of Saratoga Creek Requires Geographical Restriction Based on All Available Evidence.** Existing URTA data consist of two assessments conducted at one location in Saratoga Creek (i.e., El Camino Real), approximately 1 mile upstream of its confluence with San Tomas Aquino Creek. Existing information indicate that trash conditions at this location are strongly influenced by litter and dumping activity that occurs at one road crossing. Data are not available to reflect full implementation of technology based controls for this area or for reaches between El Camino Real and headwaters, a distance of approximately 12 miles. The majority of the latter area drains single family residential areas in the middle reaches, and open space in the upper reaches. Based on experience in identifying trash source areas, these types of land uses are not prone to trash. Additional information collected by SCVURPPP during a continuous creek walk of the 7-mile section of creek (between Bollinger Av and Highway 9 upstream of the City of Saratoga) confirms that these creek reaches are not impacted by trash.
- 17. The Proposed Listing of Stevens Creek is Not Supported by the Weight of Evidence.** Existing URTA data were collected at six locations within approximately 12-mile reach between La Avenida and Moss Rock Park, located about 2 miles upstream of the Stevens Creek Reservoir. Water Board impairment thresholds were not exceeded for Parameter 3 during 4 assessments at three of the locations. The upper two non-urban sites received Parameter 3 scores that were just below the thresholds (8-9). The assessments sites represented a wide range of land uses and channel conditions that occur in Stevens Creek.

- 18. The Proposed Listing of San Tomas Aquino Creek is Far Too Overbroad.** Existing URTA data were collected at three hotspot locations within approximately 9-mile reach between Highway 101 and Westmont Avenue. Water Board impairment thresholds were not met for Parameter 3 during all five assessments conducted across the three sites. URTA scores increased at 2 sites with subsequent assessments, so a high degree of uncertainty remains as to whether there is a persistent level of trash at these sites.

COMMENTS ON LISTINGS FOR OTHER POLLUTANTS

- 19. The Proposed Total Selenium Listing for Permanente Creek Should be Geographically Restricted.** The Regional Water Board is proposing to place Permanente Creek on the Clean Water Act 303(d) list for impairment for total selenium. Two lines of evidence were used to assess listing under Section 3.1 Numeric Water Quality Objectives and Criteria for Toxicants in Water of the Water Quality Control Policy (Water Board 2004). The National Toxics Rule (NTR) continuous concentration criterion (CCC) for total selenium in water is 5.0 ug/L and is applicable to streams that support cold freshwater habitat (COLD).

Twelve water samples were collected by Water Board and SCVURPP at two locations within Permanente Creek between 2002 and 2007. Six of twelve samples exceeded the NTR criterion, with total selenium concentrations ranging from 5.8 to 18.7ug/L. All of the exceedences occurred in water samples collected from the highest elevation site (PER070). This site is located within the San Antonio Open Space District land and is approximately 1 mile downstream of the Hansen's Cement Plant. Other than cement plant and a cemetery, the area is forested open space land protected by Mid-Peninsula Open Space District.

Listing of Permanente Creek for Total Selenium should apply only to the upper reaches of the creek. There is minimal amount of urban land uses in the area that drains into site PER070. Existing information also indicates that cold freshwater habitat occurs in the upper reaches of Permanente Creek, upstream of Interstate 280. During the summer dry season for most years, the creek has intermittent flow regime downstream of the freeway.

- 20. The Proposed Toxicity Listing for Permanente Creek is Not Supported by the Weight of Evidence and Should be Dropped.** The Water Board is proposing to place Permanente Creek on the Clean Water Act 303(d) list for impairment for toxicity. Two lines of evidence were used to assess listing under Section 3.6 Water/Sediment Toxicity of the Water Quality Control Policy (Water Board 2004). The narrative water quality objective listed in the 1995 Basin Plan states "There shall be no chronic toxicity in ambient waters. Chronic toxicity is a detrimental biological effect on growth rate....." Significant toxicity of water and sediment was defined as less than 80% survival or growth compared to control of test organisms. Three freshwater organisms were used for testing aquatic toxicity and one test organism (*Hyalella azteca*) was used for testing sediment toxicity.

Water Board collected six water samples at two locations within Permanente Creek in 2002 and 2003, and one sediment sample was collected at lower elevation site in Permanente Creek in 2002. Only one of the seven samples exhibited acute toxicity. Similar to other data collected throughout the region, State and U.S., chronic toxicity was documented in all six water samples and the one sediment sample.

Due to the ubiquitous nature of chronic toxicity in receiving waters throughout the U.S., and the issues surrounding the validity of the text with regard to impairment, we request that chronic toxicity data be removed from consideration by Water Board staff.

- 21. Given the Evidence, the Proposed Listing for Water Temperature in Stevens Creek Should be Seasonally and Geographically Limited.** The Water Board is proposing to place Stevens Creek on the Clean Water Act 303(d) list for impairment for temperature. One line of evidence was used to assess listing under Section 3.2 Numeric Water Quality Objectives for

Conventional or Other Pollutants of the Water Quality Control Policy (Water Board 2004). Water Board staff used benchmark guidelines (Sullivan et al. 2000) for steelhead, not narrative water quality objectives, to evaluate existing data. The guidelines represent threshold temperatures for steelhead rearing and potential impacts to growth. These are not numeric water quality objectives listed in the Basin Plan. The guideline benchmark was 17 °C for 7-day mean temperature.

Water Board staff conducted continuous monitoring of temperature (15 minute intervals) at four sites for periods of 1-2 weeks. Temperatures ranged from 9.3 to 25.5°C across eleven sampling events. Six of the events had mean 7-day temperature values that exceeded the 17 °C guideline. Five of these exceedences occurred during the dry season and at the two lowest elevation sites (STE020 and STE060).

Existing information indicates that steelhead rearing habitat in Stevens Creek is limited to a 4-mile reach below Stevens Creek Reservoir. Stillwater (2004) conducted a limiting factors analysis and identified a lack of over wintering habitat for juvenile steelhead as key limiting factor for steelhead population. Temperature was determined to not be a key factor limiting steelhead due to sufficiently cold water in reaches that supported steelhead spawning and rearing. However, temperature in lower reaches may be important during outmigration periods, especially during low water years. There was insufficient data to evaluate water temperatures during migration periods. The Water Board conducted 10 of the 11 monitoring events during late summer and fall and only one during spring migration period.

Based on this information, we request that the listing for Stevens Creek be limited to the lower reaches during the summer months.

We hope you find these comments and suggested improvements a useful basis for proposed revisions to the 303(d) List. Due to the number of significant comments being submitted and need for thorough consideration (and potential consultation) on the changes requested, we request that the Water Board's Public Workshop to hear oral testimony scheduled for January 14, 2009 be continued to a later date. During this time we would like to work together with you and your colleagues to facilitate incorporation of all or some of the suggested changes into a revised staff report. Please contact me at (510) 832-2852 if you have questions regarding the comments or suggested changes. We look forward to continuing to work with you further.

Sincerely,

Adam Olivieri, Dr. PH, P.E.
SCVURPPP Program Manager

cc: Bruce Wolfe, SFB Water Board
Tom Mumley, SFB Water Board
Alexis Strauss, US EPA Region 9
SCVURPPP Management Committee

References:

- Stillwater Sciences. 2004. Stevens Creek Limiting Factors Analysis Technical Report. Prepared for the Santa Clara Valley Urban Runoff Pollution Prevention Program. September 10, 2004.
- Water Board 1995. *Water Quality Control Plan, San Francisco Bay Basin (Region 2)*. San Francisco Bay Regional Water Quality Control Board. June 21, 1995.
- Water Board. 2004. *Water Quality Control Policy for Developing California's Clean Water Act Section 303(d) List*. State Water Resources Control Board. September 30, 2004.

**SCVURPPP SUBMITTAL (LETTER) OF
WATER QUALITY INFORMATION TO THE
SAN FRANCISCO BAY REGIONAL WATER
QUALITY CONTROL BOARD**



**Santa Clara Valley
Urban Runoff
Pollution Prevention Program**

Campbell • Cupertino • Los Altos • Los Altos Hills • Los Gatos • Milpitas • Monte Sereno • Mountain View • Palo Alto
San Jose • Santa Clara • Saratoga • Sunnyvale • Santa Clara County • Santa Clara Valley Water District

Submitted via email and hard copy (with attachments) on February 28, 2007

Ms. Naomi Feger
California Regional Water Quality Control Board
San Francisco Bay Region
1515 Clay Street, Suite 1400
Oakland, CA 94612

Re: Submittal of Water Quality Data and Information for 2008 Integrated Report – List of Impaired Waters and Surface Water Quality Assessment [303(d)/305(b)]

Dear Ms. Feger:

This letter and enclosed data/information are submitted on behalf of the Santa Clara Valley Urban Runoff Pollution Prevention Program (SCVURPPP) regarding the *Notice of Public Solicitation of Water Quality Data and Information for 2008 Integrated Report – List of Impaired Waters and Surface Water Quality Assessment [303(d)/305(b)]*, dated December 4, 2006. Physical, chemical and biological data collected from 2004 to 2006 have been previously submitted by SCVURPPP in annual NPDES reports¹ and are again provided in the enclosed CD-ROM (see attachment A) for your convenience. In summary, these **data suggest that water quality standards are attained in Santa Clara Basin creeks that have designated beneficial uses.** However, with an increased focus on trash in San Francisco Bay area urban creeks, the SCVURPPP felt a need to bring your attention to trash-related data and information collected to-date by SCVURPPP and provide recommendations on whether to include these water bodies in the *2008 Integrated Water Quality Assessment Report*.

Background on Trash in Santa Clara Basin Urban Creeks

On November 14, 2001, the Water Board released the document entitled *Proposed Revisions to Section 303(d) List of Priorities for Development of Total Maximum Daily Loads for the San Francisco Bay Region Report* (SFB Water Board, 2001). This report states that:

“Between now and the next 303(d) listing cycle, municipalities will be expected to assess trash impairments in their jurisdiction, as documented in annual reports to the Regional Board. The approach should mirror the standard TMDL approach of defining the problem, identifying sources (trash hot spots) through

¹ Submitted in compliance with NPDES Permit Order No. 01-024. Data are presented in *Watershed Monitoring and Assessment Summary Reports* located in Appendix C of the Annual Reports.

monitoring or existing information, and developing a program of action to address the principle sources, which will likely be associated with schools, convenience stores and restaurants, and places where citizens chronically dump excess garbage in violation with existing litter laws. Regional Board staff will review this specific information in the next listing cycle and determine whether specific water bodies warrant 303(d) listing, and note the existence of relatively clean urban streams" (emphasis added).

In a proactive response to the 303(d) Staff Report, the SCVURPPP formed a Trash Ad Hoc Task Group in February 2002 and developed a Work Plan (see Attachment B) to identify a strategy for addressing trash problem areas that occur in or near urban streams and waterways of the Santa Clara Basin. As requested in the Staff Report, the Work Plan follows a standard TMDL approach of identifying problem areas and assessing/developing appropriate Best Management Practices (BMPs) to address high priority sources. The following paragraphs briefly describe SCVURPPP's progress to-date.

Assessing Trash Impacts

In 2004, SCVURPPP Co-permittees documented the location, trash source and property owner for 195 potential trash problem areas within the Program's jurisdiction. Sixty-four sites were located in creeks or in close proximity to a creek (i.e., banks), and 131 sites were located in areas that were not in the creek (e.g., areas near dumpsters, freeway exit ramps, road sides, etc.). Co-permittees then conducted trash evaluations in Fiscal Years 2004-05, 2005-2006 and FY 2006-07 at potential trash problem areas using two types of protocols: 1) rapid creek trash assessments² and, 2) Keep America Beautiful (KAB) Litter Index. Because the focus of the 2008 *Integrated Report* is on the condition of water bodies, only the results of the assessments conducted in creeks (i.e., Urban RTA results) are discussed in this section. The results of evaluations using the KAB protocol can be found in Attachment C.

Status and Condition of Creek Sites

Forty-eight baseline⁴ assessments were conducted by SCVURPPP at potentially problematic urban creek sites in FYs 2004-05 and 2005-06 using the Urban RTA protocol. Baseline site scores are shown in Figure 1. Only 6% of the sites evaluated had Urban RTA scores that ranked as "poor". Ranges and median Urban RTA scores for each of the major watersheds of the Santa Clara Basin are shown in Figure 2.

² Rapid Trash Assessment (RTA) Protocol (RTA) developed by the San Francisco Bay Regional Water Quality Control Board (Water Board) was used in FY 2004-05 to qualitatively assess trash conditions in wadeable creeks. In FY 2005-06, the RTA was refined to better evaluate conditions of trash-impacted sites in urban creeks, as opposed to the Water Board's RTA which addressed both rural and urban creeks (see attachment B on CD-ROM). The refined protocol is named the "Urban RTA".

⁴ Baseline scores were calculated using data from the original assessment conducted at each creek site to eliminate the chance of trash cleanup activities conducted as part of previous Urban RTAs to skew scores.

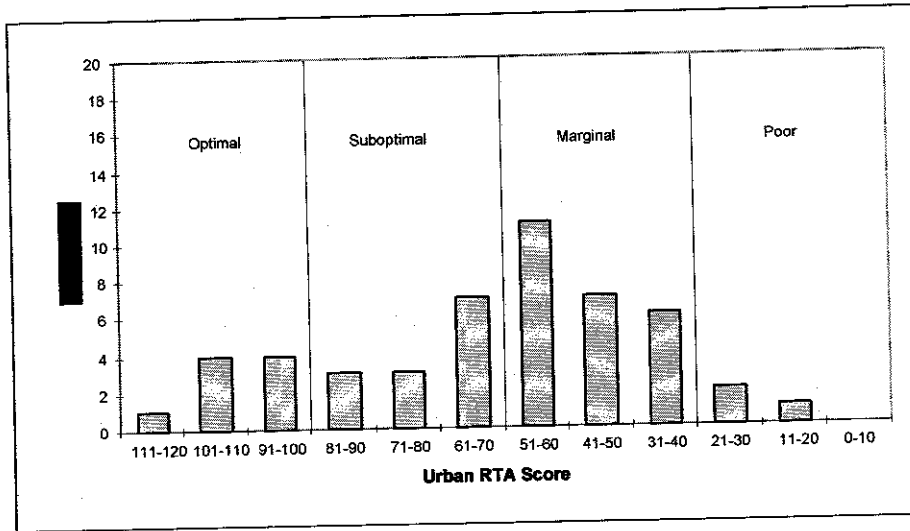


Figure 1. Frequency histogram of baseline Urban RTA scores calculated for 49 sites in Santa Clara Basin creeks.

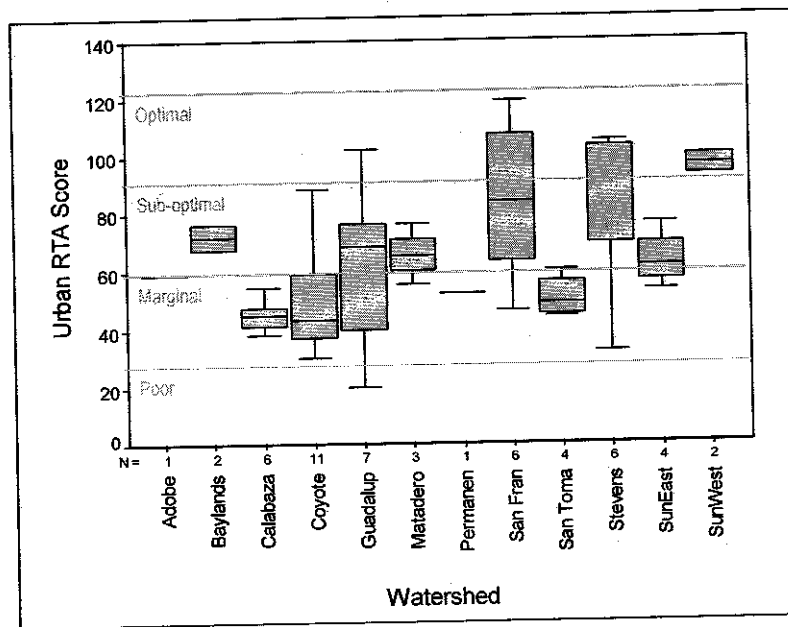


Figure 2. Minimum (lower whisker), maximum (upper whisker), 25th percentile (upper box), median (box midline) and 75th percentile (lower box) of Urban RTA scores for each major watershed in the Santa Clara Basin.

Changes in Status and Condition

Changes in Urban RTA scores at 24 creek sites assessed during multiple years are illustrated in Figure 3. The Urban RTA scores over two years showed changes in trash condition at specific creek sites. Urban RTA scores indicate improvement in 67% (n=16), reduction in 29% (n=7), and no change in 4% (n=1) of sites assessed in multiple years. Seven sites had higher Urban RTA scores during the second assessment that resulted in changes in ranking from marginal to suboptimal or optimal, while only one site changed from marginal to poor.

Trash removal during assessments conducted in Year 1 and management actions put into place between assessments may have influenced the increase in Urban RTA scores (i.e., better condition) during Year 2. It is difficult to evaluate trends in site condition however, without more data since seasonal and interannual variability of trash levels for these sites is unknown.

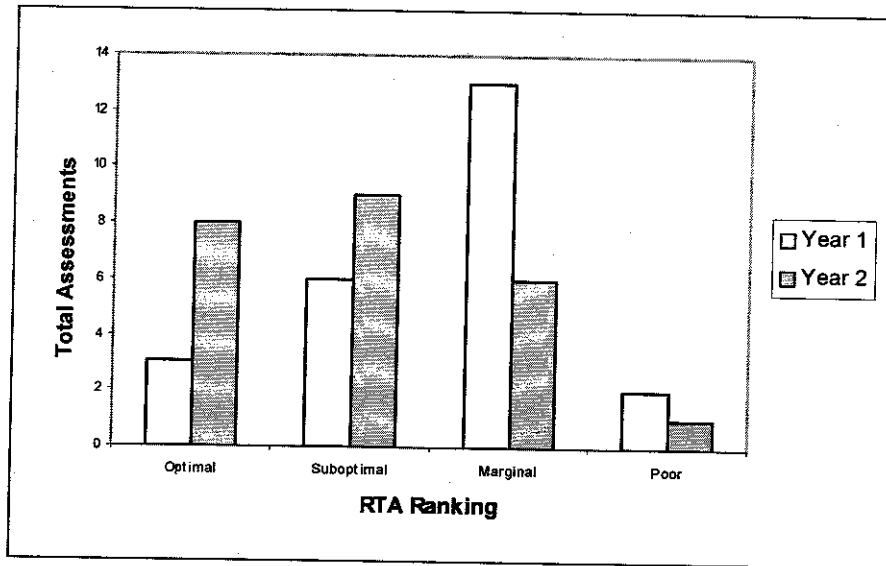


Figure 3. Comparison of Urban RTA scores at 24 sites assessed in two consecutive years (FY 04-05 and FY 05-06).

Identification of Sources

Littering by pedestrian and vehicles were the two most common trash sources reported during both KAB (and Urban RTA assessments conducted in FY 2005-06 (Figure 4). Other commonly reported trash sources include littering in commercial areas and illegal dumping during KAB assessments, and storm drain outfalls and homeless encampments during Urban RTA assessments.

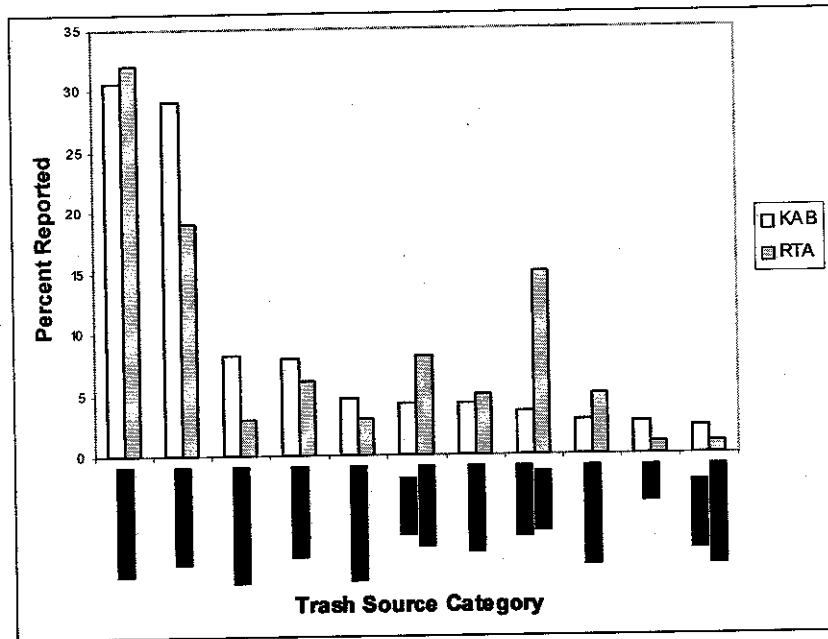


Figure 4. Most prevalent trash sources at potential trash problem areas reported by Co-permittee staff during KAB and RTA assessments conducted in FY 05-06.

Roadways, parks/trails, and residential areas accounted for about 75 percent of the land uses associated with trash problem areas in creek areas reported by Co-permittee staff during Urban RTA assessments in FY 05-06.

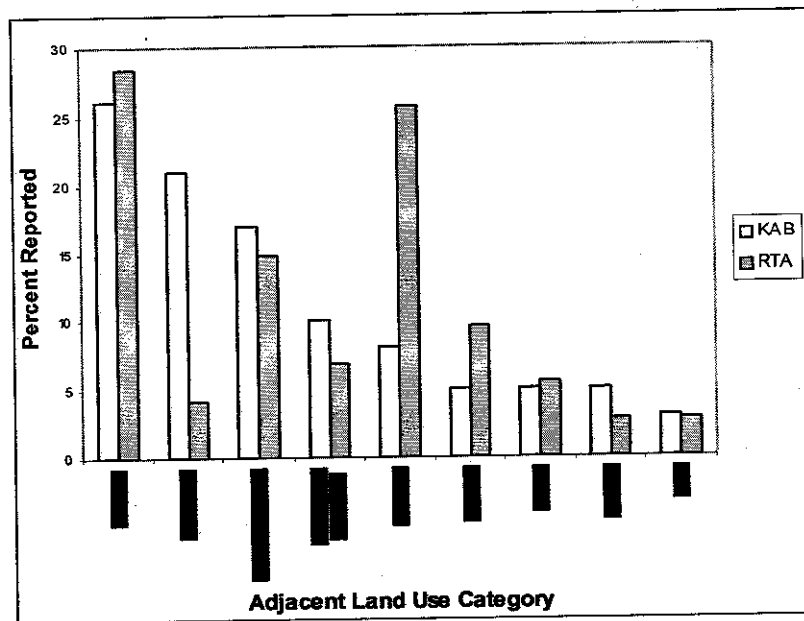


Figure 5. Most prevalent adjacent land use types at trash problem areas reported by Co-permittee staff during KAB and RTA assessments conducted in FY 05-06.

Management Strategy

Since FY 2003-04, the Program has continued to implement the following Work Plan tasks associated with trash management: 1) Document and evaluate existing trash management practices implemented by municipalities and agencies within the Program's jurisdiction; 2) Identify and begin to implement or refine existing trash control measures, where feasible, to address trash problem areas; and 3) Develop a standardized reporting format for documenting and evaluating trash management and monitoring activities. A variety of documents have been developed as a result of these tasks, including an *Existing Trash Management Practices Survey* (see Attachment D) that demonstrates the incredible number of management actions conducted by Co-permittees to reduce littering and illegal dumping in the Santa Clara Basin.

In October 2006, SCVURPPP revised the Work Plan to include a *Trash Management and Effectiveness Assessment Strategy* (see Attachment E). One of the four main areas of focus included in the strategy is the selection and implementation of appropriate control measures at high priority problem areas. This includes the implementation of structural treatment controls as part of a trash pilot demonstration project in FY 2006-07, and the development and implementation of long-term trash management strategies for high-priority watersheds beginning in FY 2007-08.

Conclusions and Recommendations

Trash accumulation in urban areas and local water bodies has been well documented in California. However, deciding as to what constitutes a water quality limited segment of a water body for trash is not a straightforward process based on existing water quality criteria (i.e., water quality objectives). As you know, numeric water quality criteria for trash have not been developed for the State of California, nor the San Francisco Bay area. Alternatively, the *Water Quality Control Policy for Developing California's Clean Water Act Section 303(d) List* provides for situation-specific weight-of-evidence listing factors to be evaluated to determine whether a water quality standard is attained (Water Board 2004). Based on tasks completed to-date by SCVURPPP, the following conclusions can be made:

- ◆ The SCVURPPP has and will continue to address the expectations placed on South Bay municipalities in the Water Board's 2001 Staff Report regarding the 2002 303(d) list;
- ◆ Baseline creek assessment data indicate that very limited number of urban creek sites assessed to-date are currently ranked as "poor" with regard to trash;
- ◆ Improvements in assessment scores have been documented at sites that originally ranked as "poor", "marginal" or "sub-optimal";
- ◆ Sources of trash in urban creeks and South Bay watersheds have been identified and trash problem areas have been designated; and,
- ◆ Proactive trash management strategies developed by SCVURPPP and Co-permittees will have begun and will continue to address trash-related issues, with the goal of substantially reducing trash in Santa Clara Basin urban creeks.

Based on these findings, the SCVURPPP recommends that **creeks located in the Santa Clara Basin should not be listed as water quality limited segments on the 2008 303(d) list as a result of trash or any other pollutant.** Additionally, we encourage Water Board staff to use the most robust quantitative assessment data (i.e., Urban RTA scores) presented in this letter to assess the condition of water body sites with regard to trash, as opposed to snapshots (i.e., photographs) that are not likely a true representation of water body condition.

Please contact me at (510) 832-2852 if you have any questions regarding the data/information⁴ presented in this letter or corresponding recommendations.

Sincerely,

Originally Signed by

Adam W. Olivieri, Dr.PH, P.E.
SCVURPPP Program Manager

CC: Bruce Wolfe, SFB Water Board
Tom Murnley, SFB Water Board
Karen Taberski, SFB Water Board
Alexis Strauss, US EPA Region 9
SCVURPPP Management Committee

References

San Francisco Bay Regional Water Quality Control Board (2001). *Staff Report – Proposed Revisions to Section 303(d) List and Priorities for Development of Total Maximum Daily Loads (TMDLs) for the San Francisco Bay Region*. November 14, 2001.

Attachments (on enclosed CDROM)

- A - Watershed Monitoring and Assessment Summary Reports (FYs 03-04, 04-05 and 05-06)
- B - SCVURPPP Trash Work Plan (March 1, 2003)
- C - Trash Problem Area Evaluation Results (FY 04-05 and FY 05-06)
- D - Summary of Existing Co-permittee Trash Management Practices Survey Results (June 4, 2004)
- E - Trash Management and Effectiveness Assessment Strategy (October 31, 2006)

⁴ All data and information presented in this submittal can also be found at www.scvurppp.org.