Groundwater Salt and Nutrient Management Plans

On January 23, Board staff hosted a workshop with three local water management agencies to facilitate the agencies’ efforts to develop salt and nutrient management plans (SNMPs) for the groundwater basins they manage. The three agencies, the Santa Clara Valley Water District (SCVWD), the Zone 7 Water Agency (Zone 7), and the Sonoma County Water Agency (SCWA), manage the Santa Clara, Livermore, and Sonoma valley groundwater basins, respectively.

SNMPs are a requirement of the State Water Board’s 2009 Recycled Water Policy (http://www.swrcb.ca.gov/water_issues/programs/water_recycling_policy/). This policy encourages development of SNMPs for all California groundwater basins by 2014. It also requires that each Regional Water Board consider amending its Basin Plan, if necessary, to implement any SNMP provisions. In December, you heard from Water Board staff, Vince Christian, about challenges and trends in using recycled water in our region. The SNMPs are intended to protect our groundwater basins as we promote increased use of recycled water.

This Board has a long history of working closely with SCVWD, Zone 7, SCWA, and other agencies responsible for groundwater basin management. The three agencies that participated in the January 23 workshop manage the largest basins in our region and have already begun developing SNMPs. In fact, Zone 7 has a salt management plan in place that we have recognized in our Basin Plan since 2004. We have assigned staff to work closely with each of these agencies to help facilitate completion of their SNMPs. Our hope is that the experience gained and the plans developed will serve as templates for other water agencies in our region. A challenge we recognize and are exploring is how to facilitate development of SNMPs for groundwater basins where there is no single basin-wide management agency, such as the Napa and Petaluma valleys and San Mateo coastside basins.

Salts considered in the SNMPs include not only common table salt (sodium chloride) but also
potassium, calcium, and magnesium salts, found in minerals, fertilizers, cleaners, water softeners, and construction materials. Many of these same materials are also sources of nitrates, sulfates, and phosphates, which are commonly referred to as “nutrients” because they are necessary for growth of plants and algae. Common sources include ammonium nitrate/phosphate fertilizers, calcium and magnesium sulfates like gypsum and “epsom” salt, and phosphate cleaning agents like tri-sodium phosphate. Across California and the country, salts and nutrients pose a major threat to groundwater quality because of the large amounts that are used and because they easily leach from soil into groundwater.

The goal of the January 23 workshop was to identify technical, policy, and administrative elements needed to support development of the SNMPs. Christine Boschen of Board staff facilitated the workshop. At the beginning of the workshop, Dyan Whyte provided background information on the origin of the SNMP requirement and its relationship to the Recycled Water Policy. This was followed by a presentation by each agency, describing its process for SNMP development and its current status in this process. The workshop allowed staff at each agency and the Board to meet their counterparts at other agencies and to “compare notes” on technical issues, such as identifying the primary salt and nutrient sources in each basin, estimating assimilative capacity, and fate and transport modeling.

We anticipate holding additional workshops at various points in the SNMP development process to assist the responsible agencies in delivering acceptable plans that can be easily converted into Basin Plan amendments. Board staff leading this effort include Mary Rose Cassa, Alec Naugle, Keith Roberson (assigned to Santa Clara Basin), Ralph Lambert (assigned to Sonoma Valley), Cleet Carlton (assigned to Livermore Valley), and Barbara Baginska (Basin Planning).

**Basin Plan Triennial Review** (Richard Looker)
We are initiating the triennial review process for our Basin Plan by holding a public workshop in March. State and federal law require the Board to review the Basin Plan at least once every three years and to identify those portions of the Basin Plan that are in need of modification or additions. The last triennial review was completed in 2009.

We prepared an initial list of candidate issues for inclusion in the triennial review workplan and will make this available to the public when the workshop date is announced. We encourage input from interested parties to assist staff to identify and prioritize Basin Plan amendment projects that will best address water quality planning needs for our region. It is important to identify the scope, timing, and critical nature of potential projects, as we have limited staff resources available to complete projects.

We will be soliciting public input, both at the March workshop and through written comments, submitted before and after the workshop. After public input is received, we will prepare a priority list of Basin Planning projects and present it for Board consideration in late 2012.
Life after Redevelopment Agencies (Stephen Hill)
In a late December decision, the California Supreme Court eliminated all redevelopment agencies in the State. Specifically, the court upheld a State law dissolving redevelopment agencies and struck down a related law allowing the agencies to survive if they gave a portion of their annual revenues to the State (“pay to play”). Local governments will be able to complete existing redevelopment projects but will not be able to start any new ones.

We expect that this action will sharply reduce the pace of Brownfield restorations, at least in the short term. Brownfields are sites where redevelopment or reuse may be complicated by the presence of soil or groundwater contamination. Both public and private entities engage in Brownfield restorations. However, even at sites where private entities do most of the cleanup work, redevelopment agencies often play crucial up-front roles (e.g., assemble adjacent properties, install some infrastructure, conduct basic site investigations). Redevelopment agencies are also eligible to receive U.S. EPA Brownfield grants, something that private developers are not. In the longer term, the State may allow redevelopment agencies to re-emerge, perhaps with a narrower focus and less funding. We will keep you posted on this topic and implications for water quality protection and restoration.

Wetland Restoration and Cleanup at Yosemite Slough (Agnes Farres and Tina Low)
For the last decade, the California Department of Parks and Recreation (Cal Parks) has been working to restore tidal wetlands and remove contaminated soil from a portion of the Candlestick Point State Recreation Area in San Francisco. The Yosemite Slough Wetland Restoration Project (Project) is located north of Candlestick Park and south of the Bayview District. This area was historically part of the Bay’s tidal marshes and mudflats that were filled until the 1970s.

The Project covers 34 acres on the north and south sides of Yosemite Slough and consists of restoring 12 acres of tidally-influenced wetlands, creating two bird-nesting islands, constructing a K-12 environmental science education center, and providing a new link in the Bay Trail and a recreation area for the Bayview-Hunter’s Point neighborhood. In 2007, the Board adopted waste discharge requirements to certify the Project and regulate the cleanup and reuse of the Project’s contaminated soil and debris. Over five million dollars in funding for the Project was secured by Board orders, adopted in July 2008 and March 2009, as compensatory mitigation for the wetland impacts associated with BART’s San Francisco Airport (SFO) extension project and SFO’s Master Plan and airfield safety improvement construction activities.

Phase One of the Project, which includes constructing seven acres of wetlands and one bird nesting island, began in June 2011 and was completed in December. Phase Two, which includes constructing the remaining five acres of wetlands and a second bird nesting island, is scheduled for completion in 2014. Phase Three, which includes construction of the education center and interpretive trails, is scheduled for completion in 2015. (see Figure 1)

During construction, contaminated soil and debris that was suitable for reuse was placed in upland areas under a geo-synthetic clay liner or used for construction fill elsewhere. A soil
berm, left in place to allow construction without tidal interference, was breached over a 3-day period in November 2011, allowing the Bay to flow into the newly graded wetland areas. On January 19, Board staff participated in an event sponsored by the California State Parks Foundation that acknowledged supporters and project partners including the Board, the San Francisco Estuary Partnership, the Bay Conservation and Development Commission, and the California Coastal Conservancy.

Board staff are also involved in two cleanup projects in close proximity to the Project that could affect the newly-created wetlands. These include cleanup of sediments within Yosemite Slough itself and cleanup of soils and sediments at the adjacent Hunters Point Naval Shipyard.

**Yosemite Slough**
Yosemite Slough (also called Yosemite Creek) is a tidally-influenced slough, approximately 1,600 feet long and 200 feet wide, that has historically received sewage overflows and stormwater runoff. The slough’s sediments are contaminated by PCBs, metals, petroleum hydrocarbons, and pesticides. A primary source of contaminants is thought to be historic releases from a nearby drum recycling facility, which discharged to storm drains from the 1940s to 1987. U.S. EPA is currently pursuing a removal action to address the sediments and is in the process of preparing an Engineering Evaluation/Cost Analysis.

**Hunters Point Naval Shipyard (HPNS) Parcels E-2 and F (Figure 2)**
The Navy is undertaking cleanup activities at HPNS’ parcels E-2 and F. Parcel E-2 is adjacent to and northeast of the mouth of the slough; Parcel F consists of underwater, nearshore areas around the shipyard, including much of the slough’s mouth. The Navy plans to construct tidal
wetlands at Parcel E-2 and conduct remedial actions at a portion of Parcel F. Sediment contamination within Yosemite Slough is upgradient of planned activities at both parcels E-2 and F. The Navy’s sediment policy does not allow funds to be used to clean up a site if recontamination can occur from an upgradient source. Therefore, the preferred cleanup sequence is to complete cleanup activities at Yosemite Slough before starting cleanup work at Parcel F or wetlands construction at Parcel E-2, in order to avoid recontamination.

![Map of Yosemite Slough and Hunter's Point Naval Shipyard parcels E-2 and F](image)

**Figure 2.** Locations of Yosemite Slough and Hunter’s Point Naval Shipyard parcels E-2 and F with respect to the Yosemite Slough Wetland Restoration Project. Yosemite Slough and the Hunters Point Naval Shipyard offshore parcel F are the subject of remedial design plans being developed for future PCB sediment cleanup.

Board staff, other regulatory agencies, and the Navy are coordinating activities in these areas to address contaminant migration, recontamination, scheduling, and other technical issues. We will keep the Board updated on cleanup and restoration progress in this area.

**In-house Training**

We had no training in January. Our February training will be on effective briefings, with an outside trainer to be provided by the State Board’s Training Academy.

**Staff Presentations**

On January 11, I updated the Industrial Association of Contra Costa County on the Board’s recent actions and priorities for the coming year. I outlined a number of opportunities for the regulated community to collaborate with the State Board and us on upcoming regulatory actions and encouraged Association members to work with us on streamlining water quality program development and implementation.

On January 12, Tom Mumley and I spoke at the California Stormwater Quality Association’s
annual meeting, held this year in Millbrae, which focused on federal and State stormwater and regulatory programs updates. Representing the host region, I provided a regional update that highlighted our experiences implementing our Regional Municipal Stormwater Permit, particularly our review of annual reports and the recent permit amendment that allows non-LID treatment at special smart growth projects. Tom participated on a panel with the executive officers from the Central Valley, Los Angeles, and Santa Ana Regional Water Boards that discussed the future of municipal stormwater permitting in California, emphasizing a mutual interest in streamlining permits while improving their effectiveness in benefitting water quality.

On January 18, Stephen Hill, Chuck Headlee, and Alec Naugle presented a regulatory update to the Bay Area branch of the Groundwater Resources Association (GRA) that focused on several topics:

- State budget situation (and implications for the State and Regional Water Boards);
- elimination of local redevelopment agencies;
- State Board’s groundwater strategic workplan;
- PCB site cleanups;
- enforcement, particularly in the cleanup programs;
- our pending update of environmental screening levels;
- the pending State Board policy for low-threat closure of leaking underground fuel tank cases; and
- an update on the Department of Defense program, including good progress on cleanup plan implementation and some setbacks in the “early transfer” approach.

The audience of about 110 was comprised of representatives from environmental cleanup consultants, environmental attorneys, vendors, and dischargers. Board staff have been making this annual presentation for 20 years. This meeting continues to be the best attended meeting for this GRA branch and provides a useful forum for Board staff to interact with the regulated community.

On January 26, Tom Mumley and I spoke at the annual meeting of the Bay Area Clean Water Agencies. I emphasized that agencies need to continue to push the maintenance and upgrade of their sewage collection and wastewater treatment systems that the Board will rigorously enforce violations related to inadequate maintenance and operation, and that the agencies should explore all opportunities for State and federal funding for their system upgrades, including better positioning treated wastewater as a resource. Tom gave a presentation on the implications for local agencies of the emerging issues associated with nutrients in the Bay, emphasizing the regulatory drivers and opportunities for local agencies to collaborate with us on collection and analysis of data to inform regulatory decisions.
Enforcement: Complaints and Settlements (Lila Tang)
The following tables show recently proposed settlements and settled actions for assessment of penalties as of last month’s report. No new complaints were issued. All active cases are available at:
http://www.waterboards.ca.gov/sanfranciscobay/public_notices/pending_enforcement.shtml

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<th>Penalty Proposed</th>
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The State Board’s Office of Enforcement includes a statewide summary of penalty enforcement in its Executive Director’s Report, which can be found on the State Board website:
http://www.waterboards.ca.gov/board_info/eo_rpts.shtml