

ASSEMBLY COMMITTEE ON WATER, PARKS AND WILDLIFE

**Tuesday, June 4, 2013
9:00 a.m. -- State Capitol 437**

INFORMATIONAL AND OVERSIGHT HEARING:

EFFECTIVE FRESHWATER PROTECTION AND ENFORCEMENT

California's surface and groundwater freshwater supplies are limited and inextricably linked. Surface water bodies can help feed groundwater replenishment. But where groundwater is overused, the physical draw from pumping a depleted aquifer can dry up surface water streams.

Likewise, issues of water quantity and quality are interconnected. Adequate freshwater outflow can dilute contaminants and create a hydraulic barrier to sea water flowing or seeping back in. Conversely, impaired and unusable groundwater resources can drive increased demands on limited surface water supplies just as poorly managed surface water supplies can lead to greater dependence on, and overdrafting of, groundwater basins.

Ideally, in many areas, surface water and groundwater should be managed together, what is known as "conjunctive use." In times of high water flows surface water is diverted and groundwater basins are provided a rest and an opportunity to recharge. Then in dry years, when river and stream flows are low, groundwater is pumped and surface water is left in stream.

However, in many areas of California, water supply and management options are limited. Surface flows are unavailable and groundwater is contaminated, leaving communities without any source of pure and safe freshwater. This problem is particularly acute in the Tulare Lake Basin and Salinas Valley areas, where about 2.6 million people, including many of the poorest communities in California, rely on groundwater for their drinking water, much of it contaminated with nitrates from fertilizer.

California's primary regulatory agency for both water rights and water quality is the State Water Resources Control Board (State Water Board).¹ And its primary regulatory agency for fertilizing materials is the California Department of Food and Agriculture (CDFA). This hearing will examine the regulatory programs and enforcement authorities of both departments with respect to agricultural lands and fertilizing materials and also take an opportunity to receive a report from the Delta Watermaster on recommendations for improving water rights enforcement.

¹ Note: The California Department of Public Health Drinking Water Program is responsible for safety standards once raw water is treated to be delivered as drinking water.

This hearing will also help inform ongoing budget discussions. The Assembly Budget Committee is recommending a two-pronged approach to addressing nitrates in groundwater through additional positions at the State Water Board for increased oversight and enforcement of agricultural waste discharges; and, additional staff at the California Department of Food and Agriculture to increase the management, research, oversight, and enforcement of the state's laws and regulations related to fertilizer. These items were held open pending final action in the Budget Conference Committee.

BACKGROUND

In February 1989, the California Department of Food and Agriculture's Nitrate Working Group issued a report entitled *Nitrate and Agriculture in California*. That report found that the trend over the decades preceding the report's issuance was that the levels of nitrates in groundwater were increasing and that levels were significantly high in several regions of the state. The report concluded that "these levels demonstrate the need to establish immediate and effective programs for the reduction of nitrate" and that efforts would need to be farm specific, stating:

There are no simple means of reducing the nitrate contribution to ground water. Crop selection, soil types, climatic conditions, irrigation and fertilizer management must all be taking into consideration. Any plans to control nitrate contamination from agricultural operations must be developed on a case by case basis.

With respect to identifying the specific sources of nitrate contamination and its effects on ground water, the report advised:

A problem in determining the extent of agriculture's contribution of nitrate in ground water is the difficulty of identifying the specific sources of nitrate. Nitrate is very persistent and it is difficult to determine if the nitrate is from current or past operations or from natural or man-made sources in the area. Finally, it is difficult to quantify the level of nitrate contribution from a single source because there may be a myriad of potential sources of contribution above an aquifer.

It is now almost 25 years later and, as stated in an article by the UC Davis Agricultural Sustainability Institute entitled *Nitrogen fertilizer use in California: Assessing the data, trends and a way forward*², we still lack accurate, site-specific knowledge of fertilizer use in California. The article acknowledges that nitrogen fertilizer has undoubtedly benefited California's agriculture and citizens. But it also posits that while the trade-offs that nitrogen fertilizer use present to society have been documented in California for more than 50 years, data limitations and misinformation often constrain discussion, cooperative action and the development of solutions that could maximize benefits and minimize harm, which is essential to protect California's agriculture, people and natural resources.

² January-March 2013 issue of *California Agriculture*, a peer-reviewed journal of research in agricultural, human and natural resources at UC Davis.

REGULATION & ENFORCEMENT AUTHORITIES

The State Water Board and Regional Water Quality Control Boards

The stated mission of the State Water Board is to ensure the highest reasonable quality for waters of the State, while allocating those waters to achieve the optimum balance of beneficial uses. The State Water Board avers that holding joint authority over both water allocation and water quality enables it to provide comprehensive protection for California's waters.

The Water Board consists of five full-time salaried members, each filling a different specialty position. Each board member is appointed to a four-year term by the Governor and confirmed by the Senate. While the State Water Board has unique authority over water rights matters, protecting water quality is a joint effort of both the State Water Board and the nine Regional Water Quality Control Boards (Regional Boards).

The mission of the Regional Boards is to develop and enforce water quality objectives and implementation plans that will best protect the beneficial uses of the State's waters, recognizing local differences in climate, topography, geology and hydrology. The water quality decisions of the Regional Boards can be appealed to the State Water Board which, in some cases, also adopts Water Quality Control Plans directly, such as in the Sacramento-San Joaquin Delta.

Each Regional Board has seven part-time members also appointed by the Governor and confirmed by the Senate. Regional Boards develop "basin plans" for their hydrologic areas; govern requirements for, and issuance of, waste discharge permits; take enforcement actions against violators; and, monitor water quality. The State and Regional Boards (collectively Water Boards) advise that the task of protecting and enforcing the many uses of water, including the needs of industry, agriculture, municipal districts, and the environment is an ongoing challenge.

The water quality regulatory authority of California's Water Boards comes from two sources, the federal Clean Water Act (CWA) and the State Porter-Cologne Water Quality Control Act (Porter-Cologne), which pre-dates and was used as a model for some of the provisions of the federal CWA. Unlike the CWA, which exempts agricultural discharges, Porter-Cologne contains enforceable permitting provisions that may be applied to waters flowing off of farms and ranches, referred to as "nonpoint source" discharges since they do not emanate from a discrete conveyance, like a pipe. Porter-Cologne also empowers Regional Water Boards to order the abatement of discharges, including nonpoint source discharges that create or threaten to create pollution.

The Irrigated Lands Regulatory Program (ILRP) was developed by the Water Boards to prevent agricultural discharges from impairing the waters that receive these discharges. The ILRP regulates discharges from irrigated agricultural lands and may also include dry land farming operations in some regions of the State due to impacts to groundwater. The ILRP permits discharges by issuing waste discharge requirements (WDRs) or conditional waivers of WDRs (Waivers) to either agricultural coalitions or groups or individual growers. ILRP staff can also investigate complaints and pursue enforcement against growers for administrative violations (e.g., failure to submit required reports) and pollution discharge-related violations.

WDRs and Waivers contain conditions requiring water quality monitoring of receiving waters and corrective actions when impairments are found. Across the nine Regional Water Boards there are differences in the regulatory approaches to the IRLP due, at least in part, to differences in agricultural practices and their potential impacts to water quality in each region. There are approximately 35,000 growers enrolled in the IRLP statewide, covering about 7 million acres. A State Water Board briefing paper on the ILRP is included as an attachment to this background paper.

In 2008, the Legislature recognized that some California communities continued to be threatened by high levels of nitrate contamination in their groundwater. In response, SB 1 (Perata) Chapter 1 of the 2008 Second Extraordinary Session (SBX2 1) was passed. SBX2 1 required the State Water Board to develop pilot projects focusing on nitrate in groundwater in two of the worst affected areas, the Tulare Lake Basin and Salinas Valley, and to submit a report to the Legislature on the scope and findings of the pilot projects, including recommended solutions. To implement the pilot projects, the State Water Board contracted with the University of California, Davis (UC Davis Study).

On February 20, 2013 the State Water Board complied with SBX2 1 and issued the report *Recommendations Addressing Nitrate in Groundwater* (Nitrate Report) setting forth 15 action items to provide safe drinking water; groundwater monitoring, assessment, and notification; nitrogen tracking and reporting; and groundwater protection. The Nitrate Report Executive Summary table (ES-1) is attached to this background and provides the State Water Board recommendations, including which lead agencies and participants should implement the recommendation and whether or not legislation would be required. Although nitrate can come from multiple sources, the UC Davis Study underpinning the Nitrate Report determined that, in the pilot project study area, nitrate from the fertilizers applied to irrigated agriculture (cropland) was the single largest source, accounting for 96% of all nitrate delivered to groundwater each year.

California Department of Food and Agriculture

CDFRA is responsible for promoting the distribution of effective and safe fertilizing materials; providing assurance to consumers that fertilizing materials are properly identified and inspected to ensure the quality and quantity of the fertilizing materials matches the manufacturer's representation; and collecting adequate funds to provide for the administration and enforcement of the laws and regulations related to fertilizing materials.

To fund its regulatory program, CDFRA requires license fees, registration fees, and tonnage fees on fertilizers with certain exceptions. For example, the bulk commercial fertilizers used by most commercial agricultural operations are exempt from registration. Existing California law also authorizes a "mill" assessment³ per dollar of sales on fertilizer materials. The mill assessment is

³Also referred to interchangeably in documents as a "mil" assessment.

paid by any fertilizer licensee whose name appears on the product label who sells or distributes packaged or bulk fertilizing materials in California.

The rate of the mill assessment is set by the CDFA Secretary with the recommendations of the Fertilizer Inspection Advisory Board (FIAB). Current statute sets the maximum amount of the mill at \$.002 per dollar to fund the CDFA Inspection Services Program (ISP) and \$.0001 to fund the CDFA Fertilizer Research and Education Program (FREP).⁴ The legislature established the FREP in 1990 to provide funding for research and education regarding the use and handling of fertilizing material, including, but not limited to, any environmental effects.

In January 2008, the FIAB voted to cut the mill in half, from \$.003 to \$.0015, allocating \$.001 to fund the ISP and \$.0005 for FREP. At the FIAB June 2012 meeting, after a discussion on the issue of nitrates and groundwater, the FIAB recommended and the Secretary concurred in raising the mill fee for the FREP program back up to \$.001. The mill fee for the ISP still remains at half of the authorized maximum.

The Delta Watermaster

In 2009, former Governor Schwarzenegger convened the Legislature in extraordinary session to take up issues related to protecting and restoring the Delta ecosystem and improving water reliability and management, including addressing water conveyance, storage, conservation, quality, and enforcement, and considering a general obligation bond. Subsequently, an historic five-bill package of water legislation was passed and signed, including SB 1 (Simitian) Chapter 5, Statutes of the 2009-10 Seventh Extraordinary Session (SBX7 1) and SB 8 (Steinberg) Chapter 2, Statutes of the 2009-10 Seventh Extraordinary Session (SBX7 8). SBX7 1 addressed governance of the Sacramento-San Joaquin Delta and SBX7 8, among other actions, authorized 25 additional employees for State Water Resources Control Board to enforce water rights.

In addition to creating the Delta Stewardship Council (Council), the Delta Conservancy, and taking other actions, SBX7 8 created the new position of Delta Watermaster. The Delta Watermaster is tasked with exercising the State Water Board's authority to provide timely monitoring and enforcement of board orders and license and permit terms and conditions. The Delta Watermaster is also empowered to submit regular reports to the board and the Council including, but not limited to, reports on water rights administration, water quality issues and conveyance operations.

In September 2012, Delta Watermaster Craig Wilson issued a report recommending that the Board be granted enforcement authorities equivalent to the Board's enforcement authorities for water quality, including enforcement authority regarding: penalties for violation of the terms and conditions of a water right permit or license; monitoring, reporting and property inspection requirements and penalties; and, service of process requirements. The Delta Watermaster's report, *Improving Water Right Enforcement Authority*, is also included as an attachment to this background paper.

⁴ Food and Agriculture Code § 14611.