



# Fact Sheet

## Smith River Plain Water Quality Monitoring Reports Now Available

Two monitoring reports are now available. One report focuses on surface water and streambed sediment results from samples collected in 2013. The second report focuses on groundwater results from well samples collected in 2015. Both reports are available online at:

[http://www.waterboards.ca.gov/northcoast/water\\_issues/programs/agricultural\\_lands/](http://www.waterboards.ca.gov/northcoast/water_issues/programs/agricultural_lands/)

### Sampling Efforts

The North Coast Regional Water Quality Control Board (Regional Water Board) collected surface water, streambed sediment, and groundwater samples in the Smith River Plain in order to better understand water quality conditions and inform the content of a permit being developed by the Board to address agricultural discharges to water associated with Easter lily bulb cultivation.

Samples were collected in 2013 and 2015. The results for 2013 and the groundwater results from 2015 are now available and described in the monitoring reports. The remaining surface water samples collected in 2015 are currently being analyzed and results are expected to be available in a separate monitoring report in 2016.

### Groundwater Samples

Groundwater samples from seven wells in the Smith River Plain were collected in 2015 and analyzed for dissolved copper, nitrate as nitrogen, and 320 pesticides and pesticide residues. Most of the groundwater samples met U.S. Environmental Protection Agency (USEPA) and California Department of Public Health (CDPH) drinking water thresholds for pesticides, nitrate, and dissolved copper.

Samples from two of the seven wells had low level detections of 1,2-Dichloropropane, a pesticide that was commonly used on lily bulbs prior to 1983. The levels for this pesticide were below USEPA and CDPH drinking water thresholds and also represent a decrease from when the two wells were last sampled in June 2002. No other pesticides were detected. Copper was detected in one well at a low level below the USEPA and CDPH drinking water thresholds.

Results also indicate that groundwater samples did not meet thresholds for nitrate in drinking water in three of the seven wells, although the three wells are used for irrigation and not for drinking water.

### Surface Water & Streambed Sediment Samples

Surface water samples were collected in 2013 in Tilas Slough, Rowdy Creek, Morrison Creek, and Delilah Creek, all of which are tributaries that drain to the Smith River. Samples were analyzed for metals, nutrients, dissolved oxygen, pH, water temperature, 183 pesticides and pesticide residues, and aquatic life toxicity. Maps and the full lists of analytes are available in the report.

The toxicity test results for the twelve surface water samples collected upstream and downstream of areas used to grow lily bulbs indicate reduced reproduction in aquatic life in three of the samples and reduced survival of aquatic life in one sample. Toxicity was not found in the two sediment samples collected. Staff are waiting to analyze the 2015 monitoring results and employ toxicity identification evaluation tools prior to drawing conclusions as to the cause of the toxicity results.

Results also indicate that ten out of 183 pesticides were detected in surface water samples, but all pesticides were at concentrations below thresholds set by the USEPA and the California Toxics Rule for the protection of aquatic life. Dissolved copper was found at levels above the USEPA criteria for toxicity to aquatic life in three out of twelve surface water samples. However, lab tests did not show toxicity in these samples. Additionally, nitrogen levels in Morrison Creek, Delilah Creek, and Tilas Slough exceeded USEPA's recommended nutrient criteria, which are intended to protect against harmful biostimulatory conditions in rivers and streams.

These surface water and streambed sediment results were shared with stakeholders in March 2015 as preliminary data. There have been no changes in the data since that time.

### **Next Steps**

Regional Water Board staff completed all the sampling for this study in June 2015. Laboratories and quality assurance personnel will complete their final review of the remaining 2015 surface water data by January 2016. Regional Water Board staff will then analyze the data and prepare a peer-reviewed report by mid-2016.

Staff continues to develop the permit for discharges associated with Easter lily bulb cultivation with input from an advisory group that is composed of stakeholders representing a broad range of interests. The draft permit is expected to be ready for public review in 2017.

### **For More Information**

Water Board Webpage:

[http://www.waterboards.ca.gov/northcoast/water\\_issues/programs/agricultural\\_lands/](http://www.waterboards.ca.gov/northcoast/water_issues/programs/agricultural_lands/)

E-mail Notification Subscription Form:

[http://www.waterboards.ca.gov/resources/email\\_subscriptions/reg1\\_subscribe.shtml](http://www.waterboards.ca.gov/resources/email_subscriptions/reg1_subscribe.shtml)

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