



# Fact Sheet

## **Easter Lily Bulb Agricultural Discharge Permitting and Smith River Plain Water Quality Monitoring**

### **Permit Development Efforts**

The North Coast Regional Water Quality Control Board (Regional Water Board) is developing a permit for agricultural discharges to water associated with Easter lily bulb cultivation in the North Coast Region, which includes bulbs grown in the Smith River Plain. The permit will be designed to protect beneficial uses of water (such as aquatic life, salmon, drinking water, agricultural water use) and attain water quality objectives through the implementation of farming and water runoff management practices (such as conservation tillage), monitoring, and adaptive management.

The permit is being developed by Regional Water Board staff 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 2016.

### **Monitoring Efforts**

In order to inform the content of the permit and better understand water quality conditions, Regional Water Board staff are collecting surface water and sediment in Smith River tributary creeks, and groundwater samples in the Smith River Plain. Samples are analyzed for dissolved oxygen, temperature, pH, conductivity, nutrients, metals, pesticides, toxicity, and other constituents.

Samples were collected in August 2013, October 2013, November 2013, and March 2015. Sampling did not occur in 2014 due to the lack of rain and contracting difficulties. Staff plan to collect at least one more round of samples in May or June 2015.

Samples are collected during both dry and wet conditions. Wet weather sampling is triggered by rainfall and stormwater runoff events. The surface water and sediment sampling locations are in Tilas Slough, Delilah Creek, Rowdy Creek, and Morrison Creek, all of which are tributary to the Smith River.

### **Preliminary Results**

Results of the sampling effort are preliminary and limited to the data from 2013. A more in-depth analysis and monitoring report will be developed and made available following the completion of the 2015 sampling events and subsequent laboratory analysis, quality control analysis, and data synthesis.

Preliminary results indicate the presence of substances at levels toxic to aquatic life in four out of twelve surface water samples collected upstream and downstream of areas used to grow lily bulbs. Toxicity was not found in the two sediment samples collected. Staff are waiting to analyze all monitoring results and employ toxicity identification evaluation tools prior to drawing conclusions as to the cause of the toxicity results.

Preliminary results also indicate that ten pesticides were detected in surface water samples out of the 100 pesticides and pesticide residues analyzed. Each of the ten pesticides were at concentrations lower than threshold levels<sup>1</sup> likely to cause toxicity. Additionally, dissolved copper was found at levels above thresholds in three out of twelve surface water samples.

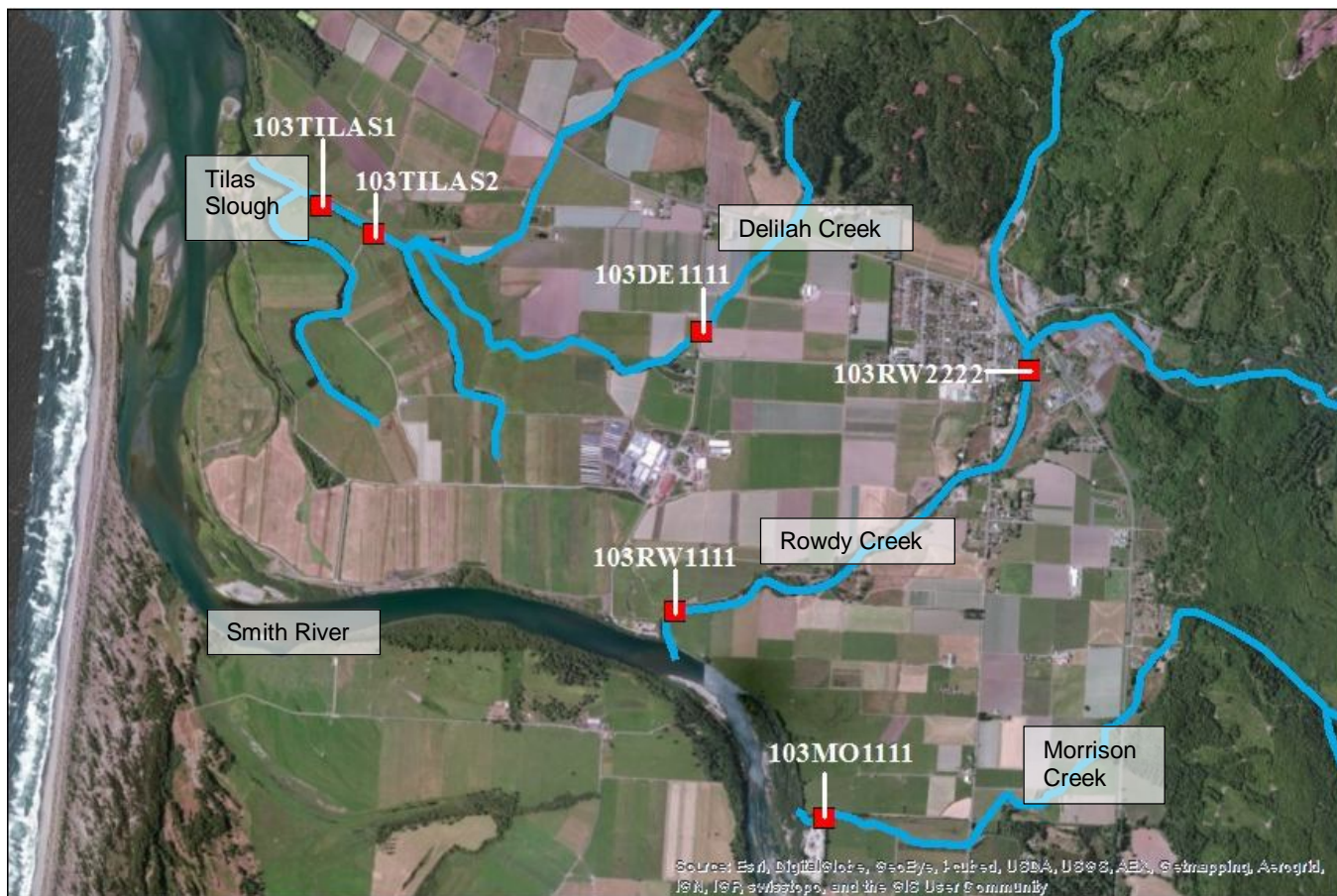
### For More Information

More information about the Regional Water Board's Agricultural Lands Discharge Program, including the development of the discharge permit for lily bulb production, can be found on our web page at: [http://www.waterboards.ca.gov/northcoast/water\\_issues/programs/agricultural\\_lands/](http://www.waterboards.ca.gov/northcoast/water_issues/programs/agricultural_lands/)

To stay informed of all developments concerning our Agricultural Lands Discharge Program, we strongly encourage you to sign up for our public mailing list. There is a link at the bottom of the web page to do so. You may also contact the lead staff working on the development of the lily bulb discharge permit:

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**Map of Sampling Sites in the Smith River Plain**



Updated: March 30, 2015

<sup>1</sup> Toxicity thresholds come from federal Environmental Protection Agency Recommended Water Quality Criteria and from California Toxics Rule criteria for the protection of aquatic life.