# **2013 South Sound Green** SoundCitizen Report #2013-04-001



In February, 2013, South Sound Green collected 3 samples from two different creeks in South Puget Sound.



Fig 1. Map showing where South Sound Green collected samples in February, 2013.

## **Understanding the Data**

The following pages show a comparison of the relative concentrations observed at the three sites.



**Fig 2.** Legend for how to read heat maps on the following page.

**<u>Ratios</u>:** The data shared in this report are in relative concentrations (ratios). If a ratio is 3:1, that means that for every 3 units at site A, there was 1 unit at site B (e.g. 3 ng/L at site A vs. 1 ng/L at site B). It's important to note a large circle does NOT mean a high concentration. For example, there could be a 3:1 ratio, but we could have had small concentrations like 0.3 ng/L and 0.1 ng/L.

<u>Heat maps</u>: We chose to show visual representations of ratios (called heat maps even though they don't show temperature) so we could quickly see differences between sites. The *concentration* is represented by the *area* of the red circle and the *uncertainty* in this concentration is represented by the *space* between the inner and outer black circles.

**Non-Detects:** At some sampling locations, chemicals were not present at levels above our laboratory's ability to detect them. Non-detects are indicated by a lack of a circle at a sampling location. The detection limit varies with each chemical, but is generally below 1 ng/L or less than 1 part-per-trillion.



### Carbamazepine (anti-seizure medication)



Fig 3. Heat map showing 2.5:1:1 ratio in concentration of carbamazepine for Woodard: Woodland 1: Woodland 2.



#### Ibuprofen (anti-inflammatory medication)

Fig 4. Heat map showing 5:ND:1 ratio in concentration of ibuprofen for Woodard: Woodland 1: Woodland 2.



#### Nicotine (substance in tobacco plant)



Fig 5. Heat map showing 1:2:4 ratio in concentration of nicotine for Woodard: Woodland 1: Woodland 2.



## Propylparaben (cosmetic preservative)

Fig 6. Heat map showing 4:1:3 ratio in concentration of propylparaben for Woodard: Woodland 1: Woodland 2.



### Sulfamethoxazole (antibiotic)



Fig 7. Heat map showing ND:1:1 ratio in concentration of sulfamethoxazole for Woodard: Woodland 1: Woodland 2.



### **A-Z list of chemicals**

To learn more about the compounds in these analyses, visit the December 2012 version of SoundCitizen's A-Z List of Chemicals at: <u>depts.washington.edu/soundcit/data/compounds/a-z-chemicals/</u>

### Acknowledgements

We thank South Sound Green for collecting samples.

Derek Overman and Alex Gipe (pictured on the left) processed the samples used in this report.

Dr. Justin Miller-Schulze developed the analytical methodology and performed data analysis for the samples used in this report.

An interactive map of sample sites is available at: <u>http://goo.gl/maps/EQV4h</u>

