

STUART SCHOOL ECO

Our Creek, and How it Effects You
By: Suzanne Berry

The Santa Rosa Creek is a major part in Santa Rosa's ecosystem. If our creek becomes too littered and gross from lack of caring, the fish will not be able to live there. If the fish cannot live, they cant keep down the bug population at the creeks, especially mosquitoes. And if the fish are no longer there, the birds wont have any to eat at the creek, and go somewhere else. The list of things effected will go on and on. The point is, everything's connected somehow. And the creek does effect you, and how you live. We need to help keep a healthy and happy creek, so everything that depends on the creek for food, homes and water can also live healthily and happily.

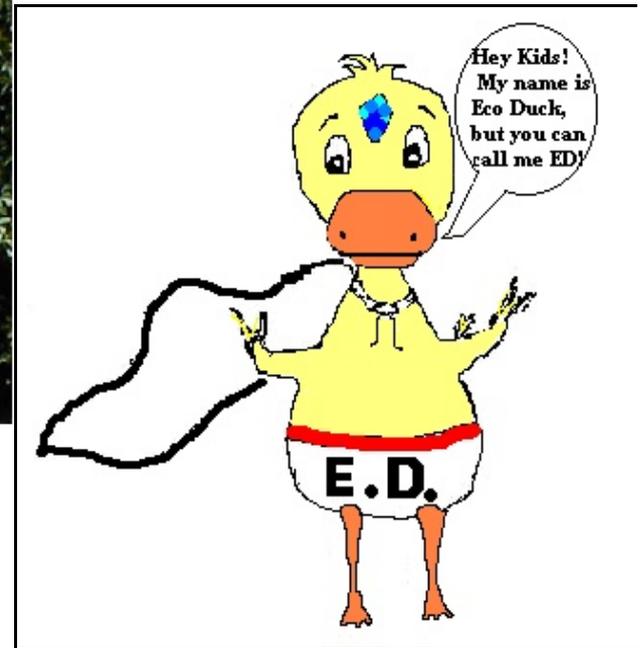


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By: Anne-Marie Boisseau

This year and last year the students of Stuart School, have been testing the Santa Rosa Creek for bacteria, turbidity, conductivity, flow, pH, temperature and many other things which affect the health of a natural waterway. Our fourth through eighth grade classes have found out so many interesting things about our wonderful creek. We wanted to share our experiences in this brochure we put together.

Date	Air Temp. Dissolved Oxygen	Water Temp. Nitrate	Turbidity Phosphate	pH	Conductivity
3/26/2003	15 16.6	15	2.41 0.08	8.8 0.02	370
4/30/2003	23 13	14 0.13	21.3	.8 0.02	230
6/25/2003	33 11.9	24 0.04	2.4 0.04	9	460
7/23/2003	19 12.4	20 0.03	1.74 0.01	8.8	510
8/28/2003	18 0.04	21	1.79 0.05	7.9	520
1/23/2004	16 9.1	12 0.22	0.01	7.4	250
2/19/2004	18 0.35	12 0.02		8.4	140
3/10/2004	27 11.4	17 0.23	3.35 0.03	8.2	350
3/26/2004	16 16.4	14 0.2	68.3 0.04	8.5	180
4/7/2004	20 10.8	15	1.59 0.1	8.5 0.03	470

Water Temperature- If temperature is too warm, organisms intolerant of warm conditions may disappear while other species, rare in unheated water, may thrive so that the structure of the community changes.

Phosphate- Phosphorous is a form of inorganic pollution, it can enter water systems by farm runoff (fertilizers) , sewage treatment plants and mines. An increase in phosphorus will result in a drastic increase in plant growth. The mass increase in plant production can lead to Eutrophication of the water system.

Eutrophication has been know to virtually choke the life out of a water system.

Nitrate- Nitrogen enters water systems through farm runoff and sewage treatment plants. Nitrogen loading can lead to increase growth of blue green algae.

turbidity- Turbidity measures the amount of suspended solids (dirt, algae, leaves, etc...) in the water. Turbidity is an important factor if water is to be used for recreational purposes. If water is too turbid then it makes recreational activities unsafe.

pH- pH is a measure of the balance between acidity and alkalinity it is measured exponentially on a scale between 0-14. Most lakes have a pH between 6-9. A water system with a pH below 5 often implies biological damage, below 4 always means damage has occurred. pH is important also as it modifies solubility and toxicity of many compounds.

Dissolved oxygen- It is important to test the levels of oxygen in a water system because the life forms that live in the water depend on the oxygen to live much like humans depend on oxygen in the air to breath. Low oxygen levels can be an indicator of organic and inorganic pollution. Also the concentration of dissolved oxygen is affected by variations in temperature, photosynthetic activity and river discharge.

dissolved inorganic ions in water. If conductivity is high then water quality inspectors can test for different inorganic materials such as heavy metals, phosphorus, nitrogen and silicates

How To Keep Your Creek Healthy

By: Ariel von Gotfried

You can help keep your creek clean by doing the following helpful things:

1.) Do not dump any chemicals, including car soap into the storm drains, all the drains go directly to the creek, which kills everything that lives there.

2.) Do not litter in the creek, there should be trash cans that you can put your garbage in, or a recycling bin for glass and plastics. If for whatever reason, there isn't any thing to put your trash in, keep it in a bag or pocket until you find one or get home to throw it away.

3.) Do not let your animals go to the bathroom near or in the creek. Other unsuspecting people might step in it, making the creek an unpleasant place to be.

The fish and other creatures that live in the creek don't appreciate it either.

