



BRONZE ACHIEVER

COMPANY PROFILE & SUMMARY OF ACHIEVEMENTS

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City of Lafayette Public Works Department
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The City of Lafayette Public Works Department (department) is constantly looking for ways it can prevent pollution and enhance the environment. For example, the department has partnered with the Center for ReSource Conservation to offer free irrigation system audits to its citizens and has partnered with Eco-Cycle to host the Zero Waste Oatmeal Festival.

Currently, the Public Works Department is experimenting with methods to control algal blooms in their lakes and reservoirs, such as the SolarBee. This solar powered floating circulation machine draws water from the lower depths of the pond and spreads the water across the surface of the water body decreasing algae and increasing dissolved oxygen levels.

The department is also experimenting with replacing the traditional chemical used to control algae growth, copper sulfate, with harvested barley straw that acts as a natural algaecide. The City is experimenting with using various combinations of SolarBees and barley straw to compare with the traditional methods and determine which combination is the most effective in reducing algae and protecting the environment. Preliminary results show the following:

- The control water body, which does not have algal blooms and does not require treatment, has 872 parts per milliliter of algae.
- Waneka Reservoir uses traditional mechanical aeration and copper sulfate to obtain results of 14,200 parts per milliliter of algae.
- Goosehaven 1 uses traditional mechanical aeration and the experimental barley straw to obtain results of 945 parts per milliliter algae.
- Goosehaven 2, which is three times larger than Goosehaven 1, uses two Solarbees and barley straw to reduce algae the level to 790 parts per milliliter.