

## **Silicon Valley Clean Water Innovation**

SVCW proudly announces a new section on our website called innovation, found under “About Us.” <http://www.svcw.org/innovation/SitePages/Home.aspx>

The section focuses on four areas in which SVCW is being innovative, many times saving ratepayers money: energy, water, solids management, and new resources. Below is a brief summary from the website. When a user clicks on one of the four sections, they are directed to additional information and specific projects.

As technology advances, so does our ability to cost effectively recover and reuse our limited resources from our waste streams. New technologies to recover precious resources like water, biosolids, and energy are developed every day. To provide the highest level of service to our 220,000 customers, and prepare for the future of water and resource recovery, SVCW focuses on four key areas for resource recovery innovation:

### **Energy:**

- By recovering natural gas for energy, SVCW meets up to 70% of the facility's electrical energy needs. And, nearly 100% of the heat needed for plant processes is recovered through cogeneration. This reduces the amount of carbon-based energy SVCW purchases, enabling it to save money while reducing greenhouse gas emissions.
- SVCW actively seeks ways to reduce energy demand and convert biosolids to energy. Research projects like food waste digestion and SAF-MBR (Staged Anaerobic Fluidized bed-Membrane Bioreactor) show significant promise towards increasing our renewable natural gas supplies.

### **Water:**

- California's recent drought reminded us that water is one of our most precious resources. Every day, SVCW cleans water so it can be beneficially released to the environment or recovered for reuse as recycled water. Using recycled water has many benefits including using less energy by importing less water, taking advantage of the energy already expended to clean the water, and protecting strained habitats by keeping more water in rivers and streams during droughts.
- The City of Redwood City has already reduced the amount of drinking water it imports, as well as the energy required to transport it, by using up to 750 acre-feet of SVCW's recycled water annually- over a quarter-billion gallons each year!
- Currently, SVCW is working with our regional partners to increase water recycling and take advantage of integrated water management benefits. By recognizing locally sustainable water supplies, we become regionally self-reliant and reduce the energy used and the amount of water transported from distant sources.

### **Solids Management:**

- SVCW processes and recovers biosolids for reuse in composting and farming. Some portion of biosolids are used as a necessary daily cover on landfills, rather than importing soils. SVCW is using emerging technology with the potential to significantly reduce the amount of biosolids produced, saving transportation costs and reducing GHG emissions.

**New Resources:**

- SVCW is a leader in exploring and implementing new technologies to maximize efficiencies, improve processes, and reduce costs to treat water. In recent years, the water, energy, and solids management fields are showing significant advances in technology to improve treatment processes, produce energy, address regulations, protect our environment, and recover our limited resources at a lower cost. It's therefore critical for SVCW to continually learn about and research new ways to help reduce our impact on the environment and become more sustainable and regionally self-reliant.



**Energy**



**Water**



**Solids Management**



**New Resources**