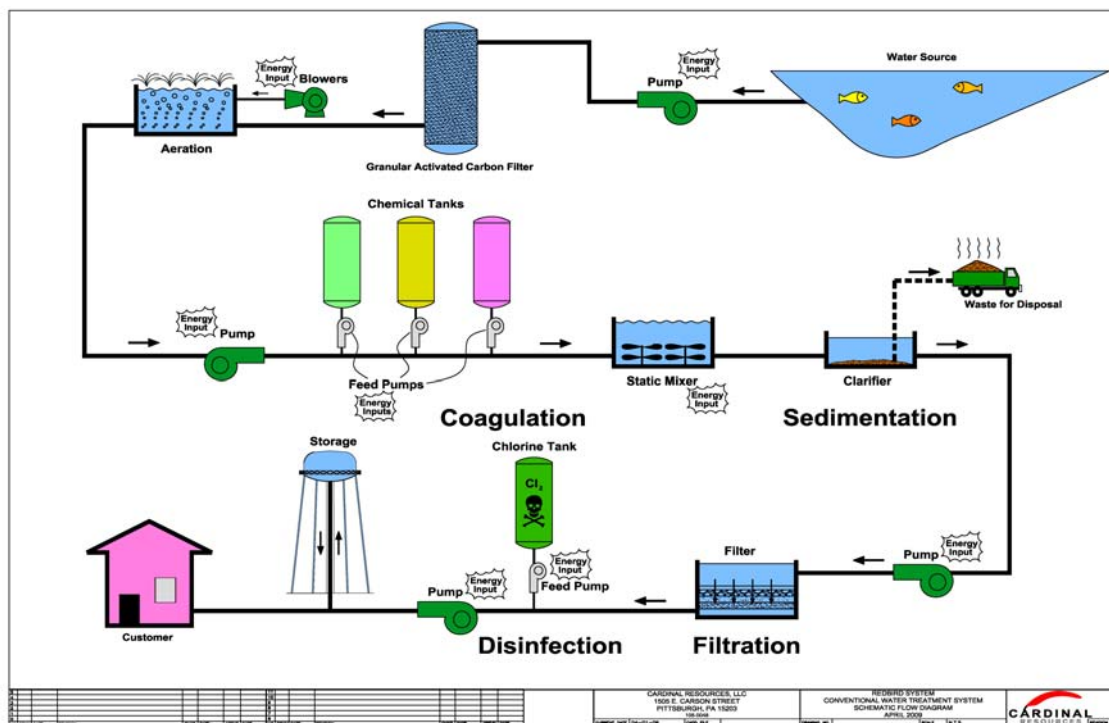


The Red Bird Technology

The technological advantage of the Red Bird was developed using modeling of natural geologic systems (Geo-mimicry) to develop a filtration system that uses natural materials to produce clear clean water that retains the minerals that give water its taste. This high tech-simplicity produces a system that is robust, sustainable, and can produce enough water for a community using solar power.

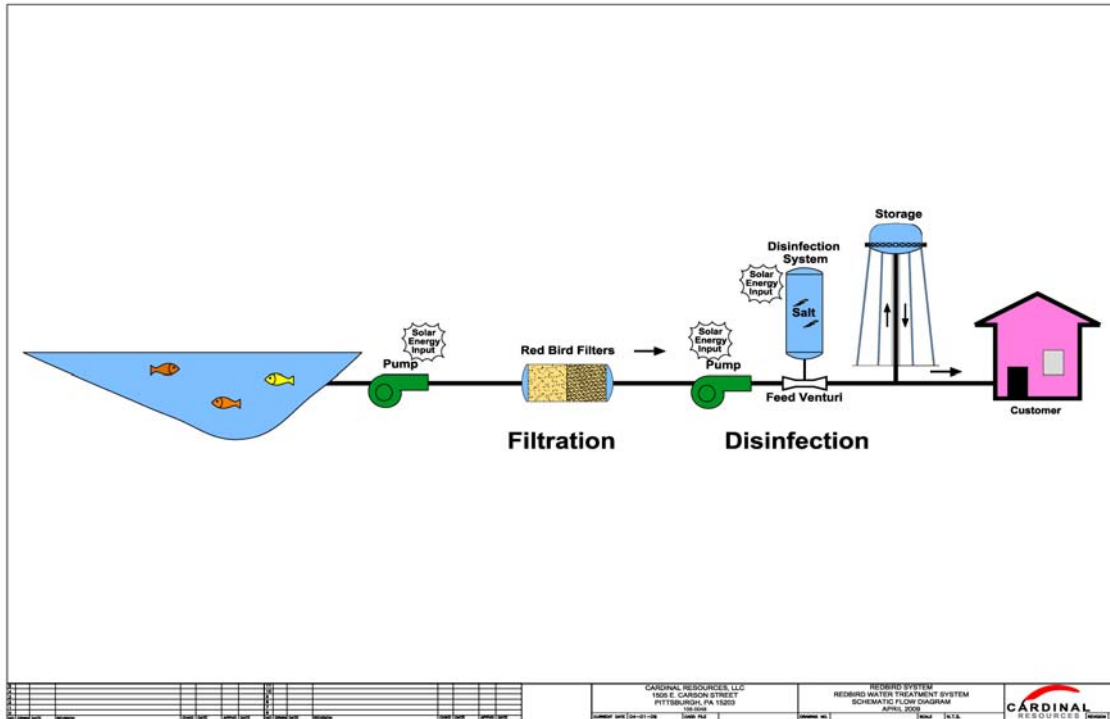
Cardinal Resources has eliminated multiple steps in the traditional processes used to produce clean drinking water and, as a result, significantly reduced the energy and costs required to produce clean drinking water. In a traditional system, a combination of aeration, chemical addition, and conditioning is required prior to filtration. Similarly, in membrane-type filter, preconditioning of the water is also required. While very effective at producing clean drinking water, the process is energy-intensive, creates a significant

Traditional Drinking Water Systems



waste stream (sedimentation sludge), and is infrastructure-intensive. As shown in the conceptual flow diagram, Cardinal Resources' Red Bird System eliminates many of the process steps that result in a more robust, sustainable system.

Red Bird System



Development of the Red Bird filters focused on eliminating pretreatment chemicals. Our patent pending filters look like standard multimedia filters from the outside, but what makes them special is the unique mix of natural materials on the inside. Cardinal Resources' years of laboratory work, research, and field testing resulted in filters that:

- Require no pretreatment chemicals - a major cost savings and energy-saving step
- Can treat a wide variety of organic, biologic, and metal contamination
- Are flexible to adjust to site specific needs, for example high arsenic or fluoride
- Sustain high flow rates - another key to being able to produce high volumes using limited solar energy
- Are scalable up and down
- Are suitable for any geographic locations, including remote areas

The Red Bird System also integrates other Cardinal Resources IP that makes the system unique, including the control and energy systems.