The Phoenix Awards
Recognition for Excellence in Brownfield Redevelopment

Lane County – Sequential Biofuels Project

Eugene, OR

2007 Special Recognition for Energy Innovation

Key Project Lesson: Innovative, safe, and sustainable new uses for old gas stations may be their redeployment as "fueling stations of the future" for biofuels and other petroleum alternatives.

Overview

The SeQuential Biofuels project shows that new uses for old gas stations may lie in their reuse as "fueling stations of the future." In this case, the 0.7-acre property located in southeastern Eugene, Oregon, had operated as a filling station from 1976 through 1991. During that time, its underground storage tank (UST) systems had leaked, contaminating soil and groundwater on the property and beyond. Off-site contamination was discovered during utility excavation work and in a nearby residential well.

But the site's location made it a natural for redevelopment as a biofuel station. The first brownfield reuse of this type ever undertaken, Eugene's biofuels service and retail center also incorporated many sustainable development elements into its design, such as solar power, passive solar heating, and bioswales; and offers locally sourced and organic products in its convenience store, which has a green roof. In addition, revitalization of the former "gasoline alley" area also created several jobs.

Featured Partners

- SeQuential Biofuels
- Lane County Board of Commissioners
- Oregon Departments of Environmental Quality, Economic and Community Development Department, and Energy

Primary Reason for Redevelopment

Given the past use of the property as a gas station, all of the requisite access points already existed,

the area was predominately commercial in nature, and the size of the property would accommodate the design of the biofueling station. From a community perspective, strong interest existed in removing a neighborhood blight that was a magnet for criminal activity and illegal dumping. In addition to advantages of location and lower property acquisition costs, SeQuential also considered the publicity that remediation of the site would yield for the SeQuential brand.

Approach

The biofuels project shows that innovative and safe new uses for old gas stations could include redeploying them as "fueling stations of the future." In this case, SeQuential Biofuels was looking for a retail outlet for its fuel product, which is made from discarded cooking oil, mostly collected from fast food restaurants throughout the state. The small site, which had operated as a gas station for 25 years, fit the bill.

SeQuential's cleanup and reuse plan called for redevelopment of the site into the first all biofuels retail facility in the state, along with a natural foods convenience store. Several brownfield process elements were critical to making this vision a reality, along with activities that Lane County and the state of Oregon agreed to carry out to help prepare with property for this new use. In January 2005, Lane County directed the removal of over 400 tires, 15 drums of investigation wastes, hundreds of needles, and other surface debris from the property. The county also secured an EPA brownfield cleanup grant. This was followed by a lease-purchase agreement between the county and SeQuential, and a prospective purchaser agreement between SeQuential and Oregon's Department of Environmental Quality (DEQ).

As these elements fell into place, cleanup and redevelopment began. Phase I work focused on contaminant source removal, which was achieved through excavation and off-site treatment of petroleum-contaminated soils. Phase II involved assessment of exposure pathways and development of a corrective action plan that included institutional controls. Many of the assessment and cleanup activities took place while the property was being redeveloped. Accordingly, activities such as determining the location and type of building; installation of a new UST system, dispenser islands, and bioswales; and consideration of entrance, exits, traffic-flow patterns and utility lines were closely coordinated with the Lane County project team, the SeQuential project team and contractor, the Oregon DEQ, and neighboring property owners.

Innovative Techniques

In addition to launching a new line of brownfield reuse opportunities, the project team assembled a creative financial package to ensure its completion. The Oregon Department of Energy provided $1.2 million in low-interest, favorable-term redevelopment loan funding for the project through its Sustainable Energy Loan Program. Additionally, the project earned $250,000 in business energy tax credits that helped make the energy efficiency and alternative fuel components of the project possible. SeQuential also set out to build the greenest facility possible—the company added a green roof to the convenience store, installed photovoltaic cells on the canopies over the fueling islands, and incorporated sustainable development elements such as passive solar building design and bioswales. In addition, the retail outlet offered mostly locally sourced and organic products.

Challenges

The early coordination of the conceptual project seemed to be the greatest challenge. Lane County was hesitant to take on this project and did not want to coordinate the cleanup work. To overcome this challenge, Oregon DEQ agreed to use the state's orphan site program contractors, who completed the removal and cleanup activities and provided staff to oversee that work. This was accomplished through an intergovernmental agreement that detailed the roles and responsibilities of the county and state government entities.

Benefits

Since the biofuels service station opened in August 2006, the SeQuential cleanup and redevelopment project has shown many immediate benefits, and the project meets a range of environmental and community development goals. Today, the former gas station is a mixed-use property that provides bio-diesel fuels to a growing fleet of environmentally friendly vehicles. Ten jobs have been created at a former abandoned site, and $4,000 in annual property tax revenues have been generated from a property that had been tax-delinquent. And, of course, the development itself features a state-of-the-art service station that incorporates the latest in energy efficiency and renewable energy techniques. The "living roof" on the convenience store contains almost 5,000 plants in six inches of soil, which slows the flow of rain water and helps to keep the convenience store cool in the summer by deflecting the intense summer sun. Even runoff from the site is contained or slowed, enhancing biological remediation before it leaves the site in grassy swales.

Before

After

Address:	750 Front Street NE, Salem, OR 97301
Contact Person:	Jim Glass
Phone:	503-378-5044
Email Address:	glass.jim@deq.state.or.us
Names of Participants:	**Oregon Department of Environmental Quality (DEQ), SeQuential Biofuels, U.S. EPA Region 10, Lane County Property Management, Lane County Board of Commissioners, Oregon Economic and Community Development Department, Oregon Department of Energy**
Number of Acres:	0.70 acres
Former Uses:	fueling station
Current Uses:	environmentally friendly biofueling station
Former number/Types of jobs:	2-3, gas station employees
New number/Types of jobs:	10, managers, shift supervisors, fuel attendants
Type of Site:	UST
Regulatory Program:	state
List of Major Contaminants:	Petroleum products
Magnitude of Contamination:	
Greatest Challenge(s):	early project coordination/conceptualization
Length of Time to Remediate Site:	3 years
Primary Reason for Redevelopment:	location, size, brand equity
Years Abandoned or Challenged:	more than 10 years
Cleaned up under Consent Decree:	No
List of Financial Assistance:	Brownfields Cleanup Grant, Oregon Brownfields Revolving Loan Program, Oregon Department of Energy Sustainable Loan program
Other Financial Techniques Utilized:	
New Tax Revenues:	$4,000
Community Outreach Activities:	continued community involvement plans
Innovative Environmental Regulatory Techniques:	biofuels approach to energy
Innovative Remediation Techniques:	
Innovative Economic Development:	biofuels creating sustainable energy product
Land Conservation:	
Sustainable Development:	
Federal Partners:	EPA