Once a contaminated mine site, historic portions of the Elizabeth Mine Superfund site in Strafford, Vermont, are now conserved and new wetland areas have been created. Additional reuse on site includes a new 7-megawatt solar farm. Cleanup at this site has paved the way for multiple reuses that benefit the surrounding community.

Copper mining took place at the 1,400-acre site for over 150 years, from the early 1800s to 1958. These operations and resulting mining wastes contaminated soil, groundwater and sediments with heavy metals. EPA placed the site on the Superfund program’s National Priorities List (NPL) in June 2001. EPA selected short-term cleanup actions to address immediate threats to human health and the environment in 2002 and a long-term cleanup plan in 2006. Activities included stabilization of the tailings dam, installation of surface water and groundwater diversion structures, and consolidation and capping of 400,000 cubic yards of waste rock and heap leach piles.

As part of cleanup planning, EPA developed a green remediation program to minimize negative impacts on the environment from the cleanup. It included using on-site material for backfilling and site restoration, reducing air pollution associated with fuel usage, recycling waste materials and using environmentally friendly products for the cleanup. The use of more
than 90,000 cubic yards of on-site material for backfill eliminated the need for about 6,000 truck trips to dispose of the material off site. In turn, this eliminated about 1 million pounds of air emissions. EPA also established 10 acres of wetlands, returning disturbed areas to ecological use. EPA also restored a portion of the Ottaquechee River. In 2014, the U.S. Army Corps of Engineers Sustainability Award Program presented the Green Dream Team Award to the Elizabeth Mine Superfund Site Project Delivery Team for wetland restoration efforts at the site.

In addition to green remediation and ecological restoration work at the site, EPA worked closely with the state of Vermont and the Strafford Historical Society to make sure historic mining artifacts and structures were recovered, preserved and documented during cleanup, as well as created historical interpretive signs and educational materials explaining the history of the site. The state of Vermont conserved artifacts including furnace parts, lead sheets and pipes, glass and nails. In 2017, developers completed construction of a 7-megawatt solar farm on the site. The facility’s 19,990 solar panels rest on a ballast rack system to protect the site’s capped area; the solar farm provides enough electricity to power 1,200 homes annually. Cleanup has provided a way for the site to serve as a source of clean energy as well as enabling ecological revitalization and historic preservation, providing long-term community benefits.

“It takes a whole community, a state, to build a solar field on a Superfund site. This mine over the years has given so much to Strafford and Thetford and the state, and now (it will bring) a new tax base to the communities and state in a clean, renewable way.

– Dori Wolfe, Wolfe Energy

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In May 2017, EPA established a task force to restore the Superfund program to its rightful place at the center of the Agency’s core mission to protect health and the environment. epa.gov/superfund/superfund-task-force