

Site Redevelopment Profile

Ciba-Geigy Corp.

New Jersey Route 37 and Oak Ridge Parkway
Toms River, New Jersey 08755

Property Overview

Size

About 1,250 acres

Current Site Uses

- A 29-megawatt solar array on 105 acres - operational as of June 2021
- A 5-megawatt solar array on 15 acres - under construction through mid-2023
- Forested habitat for wildlife
- School tours and student-led environmental research

Current Use Restrictions

- Institutional controls restrict groundwater use.
- Areas of the site with no previous industrial use - about 750 acres - are available for unrestricted use.
- Areas of the site with historical industrial use - about 410 acres - are restricted to commercial/industrial/recreational use.
- 90 acres of the site are restricted to waste management uses only.

Surrounding Population

2,626
1 MILE

58,864
3 MILES

140,293
5 MILES

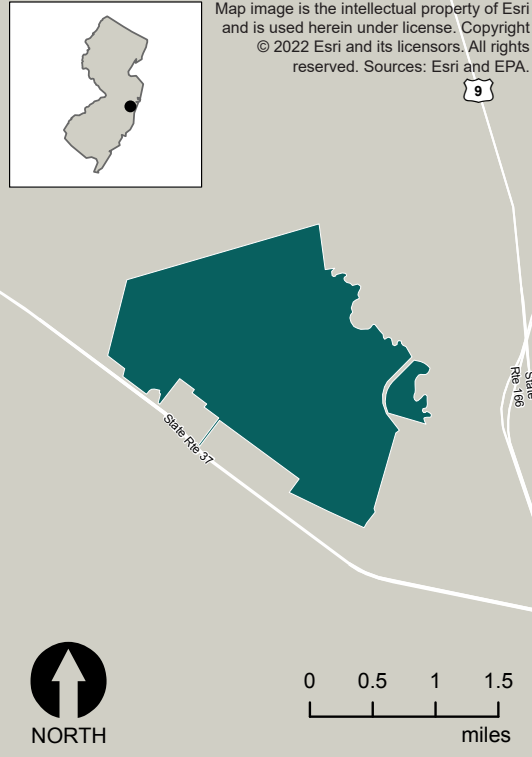


Figure 1. The location of the Ciba-Geigy Corp. site in New Jersey

Site History and Redevelopment Timeline

1952

Toms River Chemical Company (later named Ciba-Geigy Corporation) began manufacturing resin and dye on site.

1979-1983

EPA and the New Jersey Department of Environmental Protection (NJDEP) investigated the site. EPA added the site to the Superfund program's National Priorities List (NPL).

1989-1996

EPA selected the cleanup plan for site groundwater, including sealing nearby residential wells and installing a groundwater treatment system. The system became fully operational in 1996.

2000-2016

EPA selected the cleanup plan for soil on site. Remedy construction began, including on-site treatment as well as off-site disposal of contaminated soil and installing a cap to protect human health and the environment. In 2009, BASF acquired the property from Ciba-Geigy and became the new owner. In 2014, BASF made significant upgrades to the groundwater treatment plant. EPA approved the completed soil cleanup in 2016.

Present

Site owner BASF continues to manage all site cleanup activities and also leads environmental education activities on site.

Goldman Sachs Renewable Power leases 105 acres on which it owns and operates the active 29-megawatt solar array.

EDF Renewables leases 15 acres on which it is constructing an additional 5-megawatt solar array for Goldman Sachs Renewable Power.

History and Cleanup

In the late 1970s and early 1980s, in response to reports of permit violations associated with the active landfill, EPA and NJDEP conducted site investigations. Results showed contamination of groundwater and soil. EPA added the site to the NPL in 1983. Following cleanup decisions and design planning, EPA worked in conjunction with Ciba-Geigy, the potentially responsible party (PRP), to install a groundwater treatment facility. Since initial installation in 1996, EPA worked with the PRP to optimize the water treatment facility, which treats around 900,000 gallons per day, with over 17 billion gallons treated since treatment began.

In 2003, Ciba-Geigy began cleaning up the sources of contamination including a drum disposal area and contaminated soil. Cleanup also included installing a protective cap. With EPA oversight, the PRP completed cleanup in 2016. The PRP continues to conduct operation and maintenance activities at the site.

Redevelopment

In 2009, BASF became owner of the site property through its acquisition of Ciba-Geigy, taking on PRP responsibilities. In addition to taking over the ongoing cleanup activities at the site, BASF partnered with high school environmental science classes to conduct wildlife surveys on site. The tours that BASF provides teach students about the site's history, contamination and cleanup as well as wildlife species on site. Forested areas of the site provide habitat for coyotes, red and gray foxes, turkeys, raccoons, deer and birds.

In 2019, BASF leased 120 acres of the site to EDF Renewables to construct three separate solar array systems. EDF Renewables, with the help of over 100 local union workers, then constructed a 27.4-megawatt direct current (MW DC) grid-tied system and a 1.5-MW DC net-metered system. The net-metered system provides nearly 100% of the electricity required to power the groundwater extraction and treatment system. These two systems became operational in July 2021.

Construction has already begun on the third system, a 5-MW DC solar project that will provide energy to low-income homes in the community.



250,000+
cubic yards of soil
removed or cleaned up



47,000+
contaminated drums
removed



17+ billion
gallons of groundwater
treated



Figure 2. Aerial view of the solar array on site

EPA worked with BASF to make sure all solar arrays on site are ground mounted and do not penetrate the caps. The design ensures that the reuse is compatible with the cleanup and that the site remains protective of human health and the environment.

The outcomes at this site illustrate how coordination among EPA, NJDEP, BASF, EDF Renewables and Goldman Sachs Renewable Power helped transform a contaminated site and returned it to beneficial use.

“This project is a great example of collaboration between private and public sectors, including the New Jersey Board of Public Utilities, NJDEP, and the U.S. Environmental Protection Agency, along with BASF, Goldman Sachs and EDFR.”

Elliott Shanley
Senior Vice President, PVOne

Environmental Forward Solar Array

The solar project on site is the largest on a Superfund site to date. Paved areas were replaced with wildflowers and vegetation to enhance local habitat for the threatened Grasshopper Sparrow and Northern Pine Snake. BASF partnered with Rutgers University to conduct a five-year monitoring project to measure the solar array’s ecological impacts.

Contacts

For more information, please contact:

Chelsea Sebetich
EPA Superfund Redevelopment Program
(202) 566-1151
sebetich.chelsea@epa.gov

Jaclyn Kondrk
EPA Region 2 Redevelopment Coordinator
(212) 637-4317
kondrk.jaclyn@epa.gov

For more information, please visit www.epa.gov/superfund-redevelopment.



Figure 3. Aerial view of the solar array on site

