



Rocky Flats GeoRidge Water Flow Control



Nilex GeoRidge provides a durable, portable and easy-to-install solution for controlling soil erosion.

LOCATION:

Jefferson County, Colorado

PRODUCT:

GeoRidge permeable plastic berm

PROJECT PARTNERS:

Owner

U.S. Department of Energy

Consultant & Contractor

S.M. Stoller Corporation

Completion Date

Ongoing installation that started in 2016

The Rocky Flats National Wildlife Refuge west of Denver, Colorado, is a reclaimed 175 acre (71 ha) site that was home to a nuclear testing facility for 40 years. The area's combination of rolling topography, high winds and incidents of heavy rain and snow increase the odds of soil erosion. Given the site's past use, it's important to keep soils onsite, to minimize risks of contamination.

Challenge

Conditions ideal for soil erosion can build on each other, forming channels that further encourage movement of soil off site. Sites as large as Rocky Flats present numerous areas where these channels can form, so choices around erosion control need to be easy to transport and install as well as being durable enough to rely on once placed; large sites take time to inspect, and time equals expense.

Solution

The contractor was familiar with Nilex solutions and asked for GeoRidge due to its durability, portability and ease of installation. Formed of UV-stabilized High Density Polyethylene (HDPE), GeoRidge is effective in reducing water velocity, trapping sediment and aiding in vegetation establishment. Once native grasses have had a chance to take root with the support of GeoRidge, natural erosion control is significantly enhanced. Many separate areas across the site required erosion control, so it was easy for the contractor to place the lightweight GeoRidge sections as they travelled the site.

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Installation

The Rocky Flats installation was different than most of the projects Nilex supports — a difference made possible by the flexible nature of GeoRidge as a product solution.



The client purchased 1,340 sections of GeoRidge, and the contractor has been installing it with crews of two, using 10-inch landscaping spikes. It was installed in drainage channels to slow water velocity and limit erosion as well as along the contours of slopes to control sheet erosion, which is generally harder to control because it can take longer to recognize.

Results

Nilex's GeoRidge has been a trusted option for decades, suitable for areas like Rocky Flats where bursts of heavy rain can quickly create erosion on dry slopes.

In addition to the convenience of GeoRidge, the client saved money during installation compared to other methods such as coir logs or rock check dams, which require more labour, material and haul space. GeoRidge will help reduce erosion across the site, keeping soils where they belong.

The Nilex Advantage

Nilex is committed to unearthing better results. Whether it's for a civil, resource or environmental project, we offer the latest engineered and technically-superior materials and techniques to save our customers time and money, minimize the need to move or remove earth, and reduce the need for granular materials.

With 40 years' experience, a long-standing commitment to the environment and highly qualified staff, Nilex delivers the products and technologies that give clients an economic advantage with environmental benefit.

