

# Duluth park revamp incorporates stormwater treatment, aids trout



**VIDEO:**

[“Stormwater Management at Lincoln Park”](#)

## Stormwater elements

Clean Water Fund-backed stormwater-related elements installed in Lincoln Park included a rain garden, a native species pollinator planting, three bioswales, three tree trenches and three biofiltration basins.

**D**ULUTH — Clean Water Funds from the Minnesota Board of Water and Soil Resources (BWSR) supported inconspicuous elements of the high-profile, \$4.2 million Lincoln Park revitalization in its namesake neighborhood: the bioswales, biofiltration basins, rock-armored culverts and native plantings that treat stormwater before it enters Miller Creek.

A designated trout stream with a temperature impairment, Miller Creek flows from the heavily developed Miller Hills Mall area through the 45-acre park on its way to Lake Superior. Stormwater best management practices tucked against hillsides and parking lots at Lincoln Park will filter, slow and cool previously untreated runoff from the park and the surrounding neighborhood.

“Really, we’re at Step 1, from the standpoint of stormwater management, in the 100-some

years of existence of the park — creating those systems for the first time,” said Cliff Knettel, senior parks planner for Duluth’s parks and recreation department.

Untreated stormwater can carry sediment and pollutants. It can result in higher water temperatures in the stream, which negatively affects trout.

Stormwater management accounted for \$900,000 of the project cost, drawing equally from a 2019 Clean Water Fund grant, city of Duluth sustainability dollars (a general fund allocation set up to advance the city’s Climate Action Plan), and city parks dollars (via property tax levy and a half-cent sales tax).

Lincoln Park reopened Oct. 17. It closed for construction in May.

“It’s really a dramatic transformation,” Knettel said in mid-September before a quick park tour. “There was a lot of delayed,

## Funding

**Federal:** \$750,000, National Park Service’s Land and Water Conservation Fund, made available through a Minnesota Department of Natural Resources Outdoor Recreation Legacy Program award; \$42,500, U.S. Department of Housing and Urban Development funding, used for accessibility improvements

**State:** \$300,000, part of the \$426,640 BWSR Clean Water Fund grant

**Local:** \$2.5 million, city of Duluth, from various city departments and including the parks’ contribution to the stormwater treatment; \$300,000, sustainability funding (This fund is a one-time general fund expenditure set up to advance the city’s Climate Action Plan.); \$186,000 in Duluth community foundation grants, ranging from \$10,000 to \$51,475 (including U.S. Bank, Minnesota Power, dollars distributed as a result of Minnesota hosting the Super Bowl, Essentia, St. Luke’s and Maurices); \$92,305, City of Duluth Engineering Department, via the street improvement sales tax, and additional dollars via the road tax, for road reconstruction

**Left:** At Lincoln Park in Duluth, bioswales, biofiltration basins, rock-armored culverts and native plantings are part of the BWSR Clean Water Fund-backed stormwater management work. **Middle:** Cliff Knettel, senior parks planner for Duluth’s parks and recreation department, right, points out elements of the city’s Lincoln Park revitalization on Sept. 14 with Ryan Hughes, BWSR Northern Region manager. **Right:** Miller Creek flows through Lincoln Park and then runs underground before it outlets into Lake Superior. Clean Water Fund-backed stormwater management work included planting native forbs and shrubs, at bottom left, which will benefit pollinators. **Photo Credits:** Ann Wessel, BWSR



Miller Creek flows from the Miller Hills Mall area in Duluth through Lincoln Park, seen here, to Lake Superior. A designated trout stream, Miller Creek has a temperature impairment. Clean Water Fund-backed stormwater management work will filter, cool and slow stormwater runoff before it reaches the stream.

deferred maintenance on the park and a lot of the infrastructure was unusable or beyond its useful life. This park will definitely be, I believe, Duluth's best and crown jewel of a park."

Improvements include a refurbished stone pavilion; the first fully accessible playground in Duluth; reconfigured recreational and natural spaces; accessible, lighted trails; a new basketball court; a new picnic pavilion and the addition of bathrooms. The project augments ongoing commercial and residential revitalization within the larger Lincoln Park Craft District on Duluth's west side.

"It's very significant to our community, very significant regionally, but also very significant to that Lincoln Park neighborhood, which has undergone a lot of revitalization on its own — both residentially and commercially. (Lincoln Park) is just going to add to the livability of that neighborhood," Knettel said.

Lincoln and Chester parks, the first two parks established in Duluth, are connected by Skyline Parkway.

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— Cliff Knettel, senior parks planner, Duluth Parks and Recreation



The \$4.2 million cost to revitalize Lincoln Park included planning, design and engineering, environmental reviews, and studies of cultural and historical resources dating back to 2016. COVID-19-related delays affected the construction schedule and the cost. Federal, state and local grants each carried their own set of requirements.

"But we had a great working relationship with all our consulting parties and our project management team. We've had a really great working relationship with our designer, LHB, and the general contractor, Rachel Contracting," Knettel said.

The biggest challenge lay in identifying and navigating community concerns over potential impacts to historical and cultural resources, which resulted in redesigning parts of the project. That study and

review took years. Plans to reroute Lincoln Drive, which is eligible for the National Register of Historic Places, were nixed. A retaining wall dating to the late 1930s could not be completely removed. Slabs from it are incorporated in some of the stormwater treatment structures.

By Sept. 30, the heavy construction work was complete.

By early October, the site had withstood two storms, one of which delivered a 5-inch rain that caused washouts and closed roads in other parts of Duluth. By temporarily storing water and slowing runoff, the stormwater treatment in Lincoln Park will make the site more resilient in the face of a changing climate.

"The Miller Creek watershed in the immediate vicinity is in a steep ravine, so we have

a lot of stormwater that comes from above down into the park," Knettel said. "What we've done with the Clean Water Funds is more effectively addressed how that stormwater that comes into the park is treated, and how it's stored. Those structures are intended to mitigate damage and enhance the long-term (sustainability) of the park."

BWSR awarded the \$426,640 Clean Water Fund grant to the South St. Louis Soil & Water Conservation District (SWCD), which serves as the fiscal agent. The balance of the grant — after the \$300,000 for stormwater management at Lincoln Park — supported related work in Duluth's Piedmont Park.

"We've been working for many years on (the) impairment and managing stormwater impacts to Miller Creek," said South St. Louis SWCD Manager R.C. Boheim. "The city and their consultants have done most of the heavy lifting, and we're happy to partner with them and help them accomplish their goals while getting some of our goals with respect to Miller Creek completed."