# NORTHWATER TREATMENT PLANT

DENVER WATER

## Fact Sheet

JULY 2018

The Northwater Treatment Plant will be Denver Water's newest water treatment plant. Located next to Ralston Reservoir, north of Golden, in Jefferson County, it will feature state-of the-art water treatment technology and be capable of treating up to 75 million gallons of water per day (mgd) with the ability to upgrade to 150 mgd.

The Northwater Treatment Plant is part of the North System Renewal, a project to modernize Denver Water's northern infrastructure.

### STATE-OF THE-ART TREATMENT TECHNOLOGIES

Drinking water is disinfected to protect public health. The Northwater Treatment Plant will use treatment processes similar to those used at Denver Water's other plants, as well as newer, more advanced technologies designed to guard against water contaminants found in river or reservoir water. Key features of the NTP include:

- **Deeper filters:** Filters remove the initial debris and dirt from stream water as it flows into the plant. Deeper filters will remove a greater range of contaminants and impurities, producing a higher quality of drinking water.
- **Primary disinfection using ultraviolet (UV) light:** Primary disinfection kills or inactivates bacteria, viruses and other potentially harmful organisms. UV is especially powerful because it effectively guards against microorganisms such as giardia and Cryptosporidium.
- **Secondary disinfection using bleach:** Secondary disinfection kills potentially harmful organisms that occur in water as it travels through pipes to customers. Denver Water typically uses chlorine gas for secondary disinfection. The Northwater Treatment Plant will use chlorine bleach, which is just as effective as gas, but safer to transport and store.

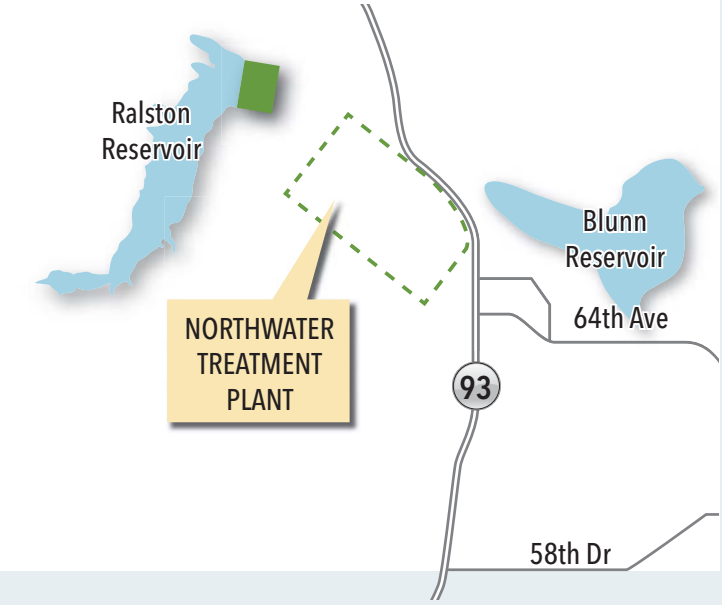
Denver Water exceeds state and federal regulations for clean drinking water at all plants.

*Plant Rendering, December 2017*

## Reducing Our Environmental Impacts

The Northwater Treatment Plant is designed to minimize energy use and carbon dioxide emissions. The plant will be eligible for a leading engineering sustainability designation (ENVISION), and the operations building will be eligible for LEED certification. Several buildings will be built partially underground. This will reduce energy used for heating and cooling, as well as the plant's visual impact. Hydropower facilities onsite will produce enough energy to operate the plant. Energy efficient LED lighting will be used in both interior and exterior spaces. Native grasses, trees and shrubs planted at the site will be drought-tolerant.

*Colorado Butterfly Plant*




*Northwater Treatment Plant Location*

## After the Plant is Operating

Denver Water has reduced the size of the plant campus and designed buildings to minimize the plant's visibility from State Highway 93. There will be no sound impacts offsite, and exterior lighting will be minimized to reduce impacts.

The plant will be highly automated, so that fewer staff will be needed to operate it. Approximately six staff are expected to report to the site each day, with other staff visiting for maintenance and deliveries. Engineers estimate average traffic of 60 vehicles a day.

Denver Water has an excellent safety record for the operations of its water treatment plants. We work with state and federal regulators to safely manage plant operations and the transport of chemicals.

## About Denver Water

In 2018, Denver Water celebrates serving the Denver Metro area for 100 years. The water we provide to 1.4 million residents helps maintain a vibrant city and many of its surrounding suburbs. Denver Water has been in the Northwest metro area since the 1930s when the area was mostly rural farmland. Our North System starts at Gross Reservoir in Boulder County. Water moves down South Boulder Creek where it is stored in Ralston Reservoir in Jefferson County. Water treated at the Northwater Treatment Plant will then travel through an 8.5 mile underground pipeline to the Moffat site in Lakewood, from which it will be distributed to homes and businesses.

## FOR MORE INFORMATION

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## PLANT SIZE

Located on 183 acres owned by Denver Water, the plant includes Operations, Chemical, Electrical and Treatment buildings, as well as two water storage tanks and a security station.

## CONSTRUCTION TIME FRAME

2017 – 2024

## COST

$520 million

## BEING A GOOD NEIGHBOR

Denver Water is committed to supporting our neighbors and the surrounding community as we move through the North System Renewal projects. We will mitigate construction impacts and inconveniences wherever possible and communicate early and often to ensure that residents can plan accordingly.