

# WINDSOR WATER REPORT

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*A snapshot of water sources and  
use in the Town of Windsor.*

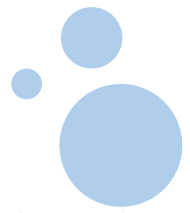
JANUARY - DECEMBER 2018



*#naturally important*



# WATER 101



## 55 GALLONS

Windsor's average indoor water use per person, per day.



### POTABLE WATER

is treated and safe for human consumption.



### NON-POTABLE WATER

is "raw" or untreated and typically used for irrigation.



To buy the water rights for an average Windsor home, it costs **\$27,550.**



Yearly outdoor water use for an average household in Windsor is **41,000 GALLONS.**



When comparing a winter and summer day, water use in Windsor **QUADRUPLES.**



Monthly indoor water use for an average household in Windsor is **5,000 GALLONS.**

# 2

Windsor obtains its potable water rights from two sources: **Colorado-Big Thompson Project** and the **North Poudre Irrigation Company.**

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Water is measured in acre-feet.



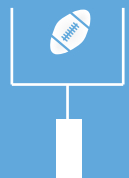
**1 ACRE-FOOT**

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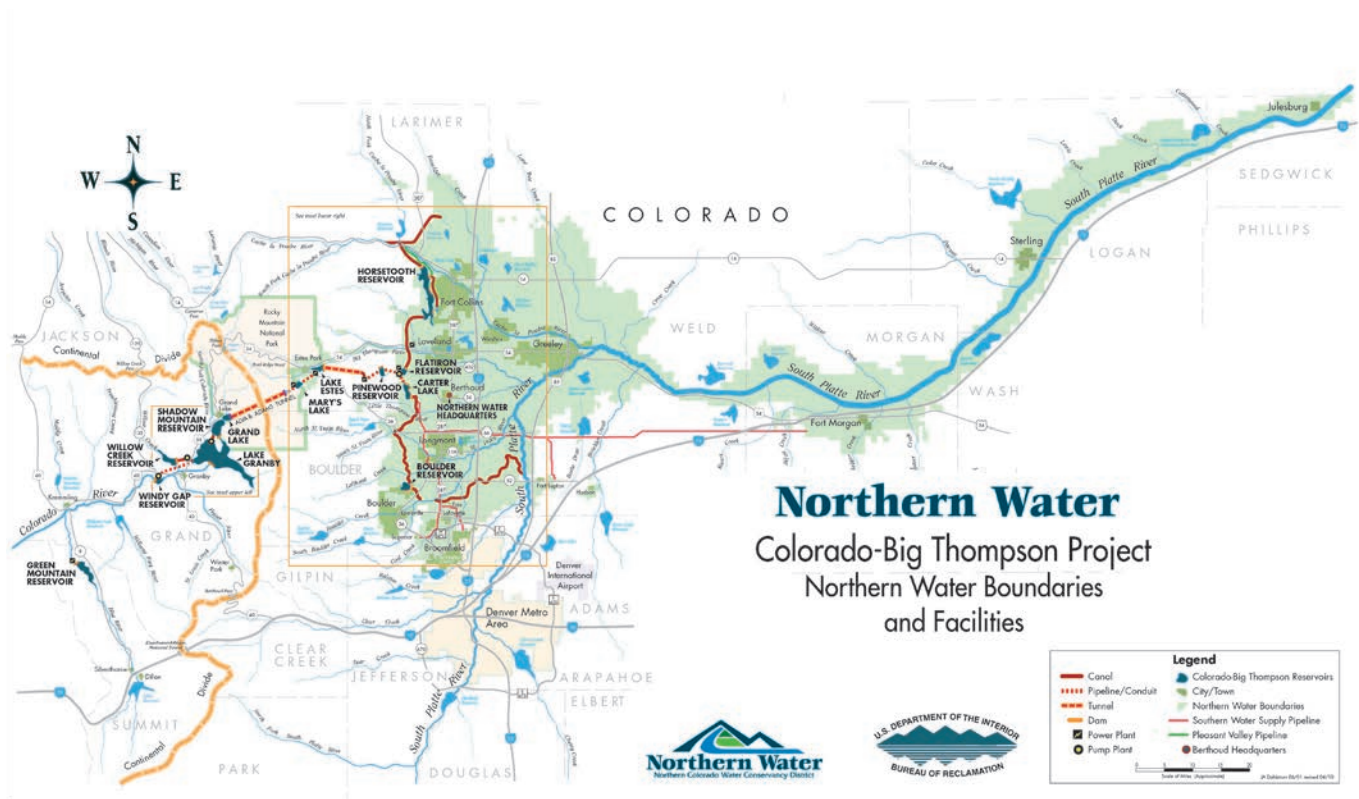
**326,000 GALLONS**

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**1 FOOTBALL FIELD, 1 FOOT DEEP**

# WATERSOURCES



Water is a precious, limited commodity and must be budgeted, much like money, in the form of water rights. Each year the water budget must be modified to match that year's supply scenario.

Windsor obtains its water rights from two sources: the Colorado Big Thompson (CBT) and the North Poudre Irrigation Company.

Most of the potable water coming out of Windsor faucets starts as raw water on the other side of the Continental Divide in the Upper Colorado River Basin. It is collected and conveyed through an elaborate system of reservoirs, trans-mountain tunnels, canals, and pipelines built under the Colorado Big Thompson Project, authorized by President Franklin D. Roosevelt in 1937. There are 310,000 acre-foot units in the CBT system.

The original purpose of the CBT system was to provide water to supplement the native river supplies in Northern Colorado. In years when the native supply is low, CBT provides additional supply from their storage reservoirs.

The amount of water from a CBT unit can vary from 0.5 acre-feet to 1.0 acre-foot in any given year.

Windsor also owns shares in the North Poudre Irrigation Company, and, as a result, owns units of Colorado Big Thompson water through the North Poudre Irrigation Company.

Although Windsor doesn't own a water treatment plant, it does own adequate raw water rights for all existing customers in its service area.



# WATER USE

## RESIDENTIAL

On average, a person uses 55 gallons of indoor water each day in Windsor. That's water used to flush the toilet, wash clothes, take a shower and cook meals. Each year that add up to an average of 60,000 gallons per year used inside the home. Water used for outdoor irrigation adds an additional 41,000 gallons each year.

Windsor's projected potable water demand at build-out of the Growth Management Area is 12,500 acre-feet. To meet this demand, Windsor will actually need 15,800 acre-feet. Currently, water rights owned by the town yield 4,100 acre-feet on average.

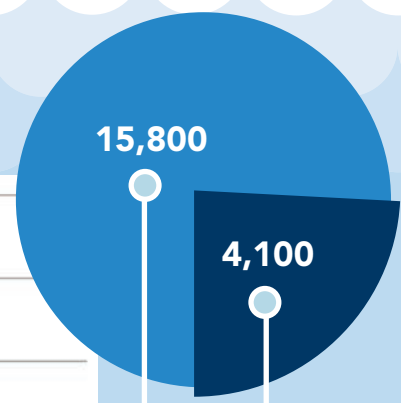
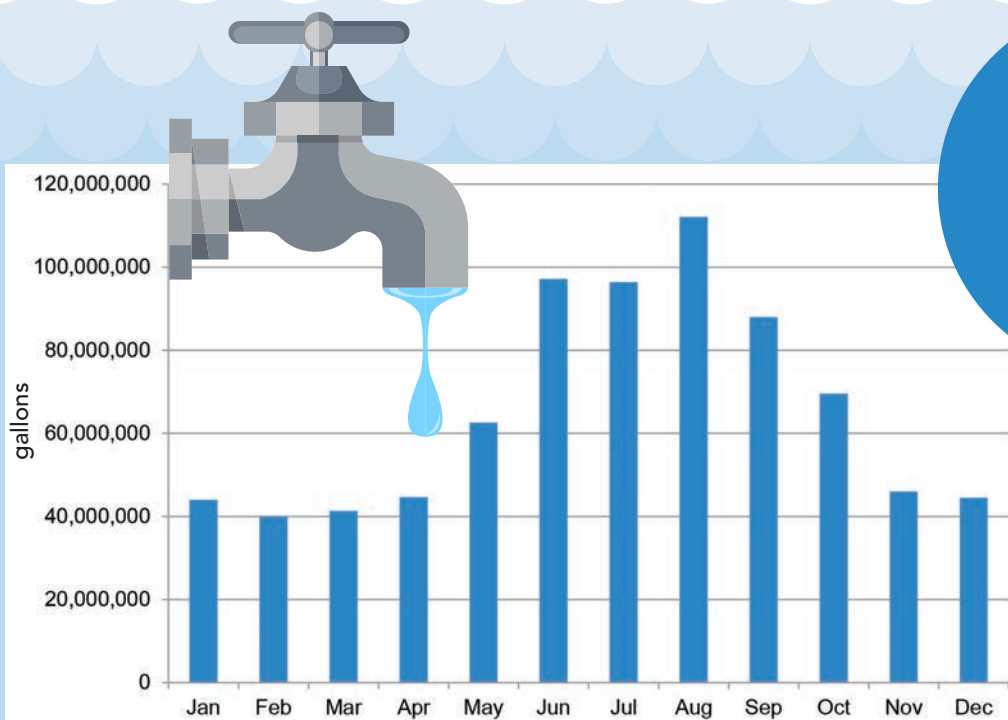
Much of the land in Windsor's Growth Management Area is or was used for irrigated agriculture, and, so as it is urbanized, the historical agriculture water rights can continue to be used to irrigate lawns, trees, and shrubs. To help water conservation efforts, the town established an ordinance requiring a secondary non-potable water

system within new developments. For nearly 20 years, most new residential developments in Windsor have included a non-potable water system, typically owned and operated by a Metropolitan District or Homeowners Association. While this ordinance has diverted the responsibility of outdoor water shares to development, the need for enough shares to cover Windsor's indoor water use is carried by the town.

## PARKS & OPEN SPACES

In 2010, Windsor adopted a Non-Potable Water Master Plan, a road map for irrigating public parks and open space with non-potable water. Generally, the plan is to irrigate with well water augmented by agricultural water stored in a reservoir for release back to the Poudre River to meet state requirements.

With only a few exceptions, Windsor's parks are irrigated with non-potable water from reservoirs or wells.



Current acre-feet supplied by owned water rights

Total acre-feet needed to meet full Growth Management Area buildout demand

## 2018 MONTHLY WATER USE

# WATER TREATMENT



## CURRENT OPERATIONS

Windsor’s raw water is treated by three entities — Fort Collins-Loveland Water District (agreement expires March 2028), City of Greeley (November 2042), and the North Weld County Water District (no expiration). These entities treat the town’s raw water and deliver potable water to master meters where it enters the town’s water system.

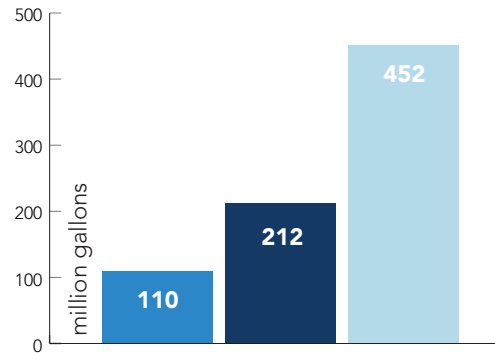
## FUTURE OPERATIONS

In 2013, Windsor collaborated with local municipalities and water districts on a study of the feasibility of a regional water treatment and transmission system (RT2 Study). The study identified a treatment plant two miles north of Highway 14 and one mile west of the Larimer-Weld County Line, with raw water provided through a pipeline from the NISP-proposed Glade Reservoir.

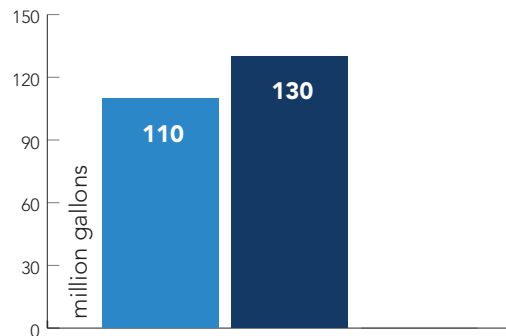
Shortly after completion of the RT2 Study, Windsor organized a series of meetings with Northern Colorado entities, with the group evolving to include Windsor, Severance, Eaton, and the North Weld County Water District.

In September 2015, the group conducted a study on the existing and future Soldier Canyon Treatment Plant capacity and water transmission lines. The study concluded that the plant must be expanded in 2020. With the 2020 expansion and an additional expansion in 2030, the system will meet demand through 2050.

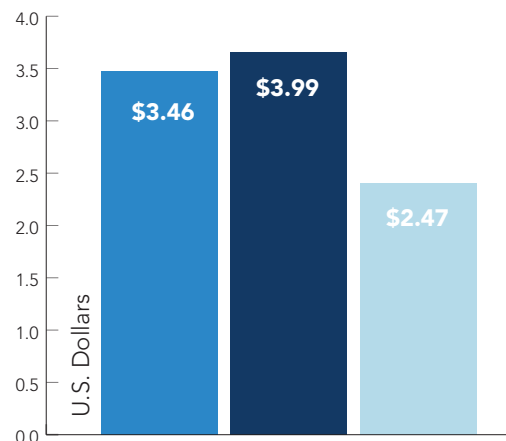
In 2017, Eaton, Severance, the Fort Collins-Loveland Water District, and Windsor jointly contracted a consulting engineer to further study the feasibility of a water treatment plant that could use NISP water and deliver potable to each of those entities. The study concluded that the first phase of a treatment plant should be sized for 10 million gallons per day (MGD), and in the future expanded to 20 MGD. The estimated cost for the initial 10 MGD plant is \$60.5 million.



MAX WATER TREATED PER YEAR



MIN. WATER TREATED PER YEAR



2018 TREATMENT COST PER THOUSAND GALLONS





# WATER FUTURE

## NORTHERN INTEGRATED WATER SUPPLY PROJECT

To ensure future water sources, Windsor is one of 15 northern Colorado Front Range water providers involved in the proposed Northern Integrated Water Supply Project (NISP). NISP, as planned, will provide 40,000 acre-feet of raw water, with 3,300 acre-feet (8.25 percent) dedicated to Windsor.

The project will consist of two main reservoirs: Glade Reservoir and the Galeton Reservoir. Glade will be located northwest of Fort Collins and will store 170,000 acre-feet of water, a little larger than Horsetooth Reservoir. At full capacity, Galeton would store 45,600 acre-feet of water east of Ault and northeast of Greeley.

The current estimated cost to build the NISP system of reservoirs, pump stations, and pipelines is \$1.1 Billion; Windsor's 8.25 percent share is \$90.8 million.

The most recent time line assumes the relocation of Highway 287, beginning in 2021 through 2023; Glade Reservoir construction in 2021 through 2025; Galeton Reservoir construction in 2020 through 2025; and finally, construction of the South Platte Water Conservation Project in 2024 through 2027.

### PROJECT IMPACT

**200,000**  
people

**40,000**  
acre-feet  
annual yield

**11**  
cities

**4**  
water  
districts

### PROJECT DETAILS

**\$1.1 billion**

**2**  
water pump  
stations

**2**  
off-stream  
reservoirs

### Project Partners

- » Central Weld County Water District
- » Dacono
- » Eaton
- » Erie
- » Evans
- » Firestone
- » Fort Collins - Loveland Water District
- » Fort Lupton
- » Fort Morgan
- » Frederick
- » Lafayette
- » Left Hand Water District
- » Morgan County Quality Water District
- » Windsor
- » Severance

# WATERSHARES



## RECENT PURCHASES

As a result of the 2009 Potable Water Master Plan, Windsor accepts up to 50 percent of the raw water for a new development in the form of cash and the remainder as actual water rights dedication. As the cash accumulates, staff members are able to purchase water rights that become available on the market.

DATE	SHARE	DEDICATOR/PURCHASER
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### *North Poudre Irrigation Company*

05-02-2018	8.00	Rocky Ridge Land Co.
07-18-2018	1.50	Greenspire Phase 2 & 3
07-19-2018	8.00	Rocky Ridge Land Co.

### *Colorado Big Thompson (CBT)*

01-11-2018	3.00	Brunner Farm 10 <sup>th</sup> Filing
03-18-2018	9.00	Windsor @ \$28,000/unit
05-11-2018	4.00	Burger King
05-11-2018	15.00	Windsor @ \$28,300/unit
07-20-2018	10.00	Chimney Park 4 <sup>th</sup> Filing
08-01-2018	6.00	Windshire Park 3 <sup>rd</sup> , 4 <sup>th</sup> & 5 <sup>th</sup> Filings
08-21-2018	16.00	Windshire Park 3 <sup>rd</sup> , 4 <sup>th</sup> & 5 <sup>th</sup> Filings
08-22-2018	8.00	Jacoby Farm 7 <sup>th</sup> Filing
12-17-2018	1.00	Windsor @ \$32,500/unit

WINDSOR  
WATER  
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For more information on the Town of Windsor's water past, present, and future, contact:

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