

City of Oceanside Water Quality Report 2020



City of Oceanside's Tap Water Supply Met All State and Federal Health Standards in 2020



The City of Oceanside is committed to providing you with safe and reliable drinking water

The Environmental Protection Agency (EPA) requires community water systems to deliver a Consumer Confidence Report, also known as an annual drinking water quality report, to their customers. These reports provide you information about your local drinking water quality. Your water is routinely tested for about 90 different substances to ensure that the water is of the highest quality. This report lists the substances that were detected during 2020 and includes details about where your water comes from. For more information about your water, contact Lori Rigby at (760) 435-5912.

Este informe contiene información muy importante sobre su agua para beber. Favor de comunicarse a la ciudad de Oceanside a (760) 435-5912 para asistirlo en español.



Health Information

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. U.S. EPA / Centers for Disease Control (CDC) guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the Safe Drinking Water Hotline at 1-(800)-426-4791.



Water Sources

The City of Oceanside has three sources of drinking water.

One source of water supply is **imported water** that is purchased untreated from the **San Diego County Water Authority (SDCWA)**. This raw water is then treated at Oceanside's Robert A. Weese (R.A. Weese) Water Treatment Plant. This facility filters and disinfects water from lakes and rivers, supplying about 82% of the drinking water used in Oceanside.

The second source is **treated drinking water** purchased directly from **SDCWA** which is blended with water from the **Carlsbad Desalination Plant**; this is about 8% of Oceanside's water supply.

The remaining 10% of the City's water supply comes from Oceanside's **Mission Basin Groundwater Purification Facility (MBGPF)**. This facility treats brackish groundwater from wells located in the San Luis Rey River Valley. The groundwater is purified by reverse osmosis and then disinfected.



The R.A. Weese Water Treatment Plant is maintained and operated by highly trained and certified individuals.



Imported water travels hundreds of miles away from the Colorado River and Northern California.



The Mission Basin Groundwater Purification Facility uses reverse osmosis to treat local brackish groundwater extracted from the Mission Basin Aquifer.

Oceanside delivers . . .

20 MILLION
gallons per day
of clean drinking water to homes
and businesses

Where Our Water Comes From

Approximately 90% of the water we use in Oceanside is imported from hundreds of miles away. This is "surface water" from lakes and rivers in Northern California and the Colorado River Basin. The Metropolitan Water District (MWD) imports this water to Southern California via a 242-mile-long aqueduct that carries Colorado River water from Lake Havasu and a 444-mile-long aqueduct bringing water from the Sacramento-San Joaquin Delta. Both aqueducts terminate in Lake Skinner in Riverside County where these waters are combined. The SDCWA purchases this imported water from MWD and distributes it to water agencies throughout San Diego County, including the City of Oceanside.

Source Water Assessment

In December 2002, MWD completed its source water assessment of its Colorado River and State Water Project supplies. Colorado River supplies are considered to be most vulnerable to contamination from recreation, urban/storm water runoff, increasing urbanization in the watershed and wastewater. State Water Project supplies are considered to be most vulnerable to urban/storm water runoff, wildlife, agriculture, recreation and wastewater. A summary of the assessment can be obtained by contacting MWD at (213) 217-5696. The Carlsbad Desalination Plant (CDP) completed a source water assessment (Watershed Sanitary Survey) in August 2005. The survey was performed to investigate potential contaminant sources in the Pacific Ocean in the vicinity of the intake structure and in the watershed of the Agua Hedionda Lagoon. The potential contaminant sources evaluated in the Watershed Sanitary Survey are not likely to impact the water quality at the desalination plant. A summary of the assessment can be obtained by contacting CDP at (702) 606-8742.



Ground Water Assessment

An assessment of the current groundwater sources for the City was completed in February 2002. The sources are considered most vulnerable to contamination from sewer collections and/or agricultural/irrigation wells. A copy of the complete assessment is available at the City of Oceanside Water Utilities Department at 300 North Coast Highway in Oceanside. You may request a summary of the assessment by contacting (760) 435-5800.

Contaminants in Source Water

The sources of drinking water (tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs and wells. As water travels over the surface of the land or through the ground, it dissolves naturally-occurring minerals and in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity.

Utilities Commission Meetings

The Oceanside Utilities Commission meets bi-monthly in the City Council Chambers at 300 North Coast Highway. The public is welcome to participate in these meetings. For more information, please call (760) 435-5800.

Contaminants that may be present in **source water** include:

Microbial contaminants such as viruses and bacteria that may come from sewage treatment plants, septic systems, agricultural livestock operations and wildlife.

Inorganic contaminants such as salts and metals that can be naturally-occurring or result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining or farming.

Pesticides and herbicides that may come from a variety of sources such as agriculture, urban stormwater runoff and residential uses.

Organic chemical contaminants including synthetic and volatile organic chemicals that are by-products of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, agricultural application and septic systems.

Radioactive contaminants that can be naturally-occurring or be the result of oil and gas production and mining activities.

	Unit	MCL [MRDL]	PHG (MCLG) [MRDLG]	State DLR	Range Average	Source Waters					Sources in Drinking Water
						R.A. Weese surface water	MBGPF ground water	SDCWA surface water	MWD surface water	Carlsbad Desalination Plant	
PRIMARY DRINKING WATER STANDARDS (PDWS) -- Mandatory Health-related Standards											
Combined Filter Effluent					Highest	0.27	NA	0.01	0.09	0.08	Soil runoff.
Turbidity (a)	NTU	TT=1 NTU	NA	NA	%<0.3 NTU	100	NA	100	100	100	
INORGANIC											
Aluminum (b)	mg/L	1	0.6	0.05	Range	0.053 - 0.15	NA	ND	ND - 0.2	ND	Erosion of natural deposits; residue from surface water treatment process
					Average	0.09	ND	ND	0.11	ND	
Arsenic	µg/L	10	0.004	2	Range	NA	NA	NA	ND	ND	Erosion of natural deposits; runoff from orchards; glass and electronics production wastes
					Average	1.1	1.2	ND	ND	ND	
Barium	mg/L	1	2	0.1	Range	NA	NA	NA	ND	ND	Discharges of oil drilling wastes and from metal refineries; erosion of natural deposits.
					Average	0.08	0.045	ND	ND	ND	
Fluoride Natural	mg/L	2	1	0.1	Range	0.2 - 0.3	0.24 - 0.66	0.2 - 0.3	0.2 - 0.3	NA	Erosion of natural deposits; water additive that promotes strong teeth; discharge from fertilizer and aluminum factories
					Average	0.2	0.4	0.2	0.2	NA	
Fluoride (c) Added	mg/L	2.0	Optimal	Control	Range	NA	NA	0.5 - 0.8	0.6 - 0.9	0.6 - 0.8	Erosion of natural deposits; water additive that promotes strong teeth; discharge from fertilizer and aluminum factories
			1	0.1	Average	Not added	Not added	0.6	0.7	0.7	
Selenium	µg/L	50	30	5	Range	NA	NA	NA	ND	ND - 6.1	Discharge from mines, chemical manufacturers and refineries; erosion of natural deposits.
					Average	1.0	2.6	ND	ND	ND	
Nitrate as N	mg/L	10	10	0.4	Range	ND - 0.28	0.85 - 1.38	ND - 0.4	ND	ND	Runoff & leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits.
					Average	0.19	1.04	ND	ND	ND	
Copper (d)	mg/L	1.3 (AL)	0.3	0.05	Range for 50 homes sampled = ND - 0.370 90th percentile for 50 homes sampled = 0.138						Internal corrosion of household plumbing; leaching of wood preservatives; erosion of natural deposits.
Lead (d)	µg/L	15 (AL)	0.2	5	Range for 50 homes sampled = ND 90th percentile for 50 homes sampled = 0						Internal corrosion of household plumbing; discharges from industrial manufacturers; erosion of natural deposits.
MICROBIOLOGICAL											
Total Coliform Bacteria (e)	%	5	(0)	NA	Range	Distribution System = ND - Present					Naturally present in the environment.
					Average	Distribution System = ND					
RADIOLOGICAL (f)											
Gross Alpha	pCi/L	15	(0)	3	Range	ND	NA	ND	ND - 3	ND	Erosion of natural deposits.
					Average	ND	5.5	ND	ND	ND	
Gross Beta	pCi/L	50	(0)	4	Range	NA	NA	ND	ND - 5	ND	Decay of natural and man-made products.
					Average	NA	NA	ND	ND	ND	
Uranium	pCi/L	20	0.43	1	Range	NA	3.8 - 4.2	ND	ND - 2	ND	Erosion of natural deposits
					Average	1.1	4	ND	2	ND	
Combined Radium	pCi/L	5	0	1	Range	NA	NA	ND	ND	ND - 0.712	Erosion of natural deposits
					Average	0.42	2.76	ND	ND	0.094	
Disinfection by Products (DBP)											
Total Chlorine (g)	mg/L	(RAA) [4.0]	[4.0]	NA	Distribution System wide range = 0.12 - 3.6 Distribution System highest RAA = 2.6						Drinking water disinfectant added for treatment
HAA5 (h)	µg/L	(LRAA) 60	NA	1	Distribution System wide range = 2.6 - 21.3 Distribution System highest LRAA = 21.3						By-product of drinking water disinfection.
Total Trihalo-methanes (h)	µg/L	(LRAA) 80	NA	1	Distribution System wide range = 12.0 - 43.0 Distribution System highest LRAA = 43						By-product of drinking water disinfection.

The data tables above and on the following page list all the substances that were detected in the drinking water during 2020 or the most recent sampling within the last five years. The presence of these substances does not necessarily constitute a health risk. The tables contain the name of each substance, the unit of measurement, the highest level allowed, the ideal goals, the detection level, the amount detected, and the usual source of the substance. Some substances are not tested each year because the concentrations do not vary significantly from year to year. For these substances, the tables include data from the most recent testing completed.

	Unit	MCL [MRDL]	PHG (MCLG) [MRDLG]	State DLR	Range Average	Source Waters					Sources in Drinking Water
						R.A. Weese surface water	MBGPF water	SDCWA surface water	MWD surface water	Carlsbad Desalination Plant	
SECONDARY STANDARDS – Aesthetic Standards											
Chloride	mg/L	500	NA	NA	Range	58 - 88	103 - 130	73 - 81	ND - 200	54 - 100	Runoff/leaching from natural deposits; seawater influence
					Average	74	115	77	108	75	
Color	Units	15	NA	NA	Range	ND - 3	ND - 3	ND	1 - 2	ND	Naturally occurring organic materials
					Average	ND	ND	ND	2	ND	
Odor	Units	3	NA	NA	Range	ND	ND	NA	NA	ND	Naturally occurring organic materials
					Average	ND	ND	ND	2	ND	
Sulfate	mg/L	500	NA	NA	Range	64 - 237	120 - 156	63 - 100	152 - 208	12 - 17	Runoff/leaching from natural deposits; industrial wastes
					Average	155	139	82	180	14	
Total Dis- solved Solids	mg/L	1000	NA	NA	Range	330 - 595	487 - 586	NA	472 - 588	140 - 276	Runoff/leaching from natural deposits
					Average	485	540	300	530	205	
Turbidity (i)	Units	5	NA	NA	Distribution System wide range = 0.10 - 0.40 Distribution System wide average = 0.15					Soil runoff	
Iron	µg/L	300	NA	NA	Range	NA	ND - 200	ND	ND	ND	Leaching from natural deposits; industrial wastes
					Average	NA	ND	ND	ND	ND	
Manganese	µg/L	50	NA	NA	Range	NA	ND - 6.9	ND	ND	ND	Leaching from natural deposits
					Average	NA	ND	ND	ND	ND	
UNREGULATED CONTAMINANTS (UCMR4) (j)											
Manganese	µg/L	NA	NA	NA	Range	ND	NA	NA	NA	NA	Leaching from natural deposits
					Average	ND	0.97	NA	NA	NA	
HAA9	µg/L	NA	NA	NA	Range	Distribution System wide range = 10 - 32					By product of drinking water chlorination.
					Average	Distribution System wide average = 23					
Total Organic Carbon (k)	mg/L	NA	NA	NA	Range	NA	NA	NA	NA	NA	Naturally occurring element
					Average	2.6	NA	NA	NA	NA	
Bromide (k)	µg/L	NA	NA	NA	Range	NA	NA	NA	NA	NA	Naturally occurring element
					Average	58.0	NA	NA	NA	NA	
ADDITIONAL PARAMETERS											
Alkalinity as CaCO ₃	mg/L	NA	NA	NA	Range	79 - 123	84 - 100	NA	105 - 121	46 - 104	Leaching from natural deposits
					Average	100	93	97	113	64	
Boron	µg/L	1000(NL)	NA	100	Range	NA	NA	NA	NA	360 - 780	Fertilizer and pesticide runoff; Leaching from natural deposits
					Average	NA	NA	130	130	550	
Calcium	mg/L	NA	NA	NA	Range	27 - 73	42 - 61	29 - 37	52 - 72	17 - 32	Leaching from natural deposits
					Average	53	53	33	62	23	
Magnesium	mg/L	NA	NA	NA	Range	12 - 25	22 - 31	13 - 15	20 - 26	0.89 - 0.98	Leaching from natural deposits
					Average	19.0	27	14	23	0.93	
pH	pH units	NA	NA	NA	Range	7.7 - 8.5	8.01 - 8.37	7.4 - 8.2	NA	8.3 - 8.8	Measure of the acidic or basic character of water.
					Average	8.0	8.2	7.8	8.1	8.5	
Sodium	mg/L	NA	NA	NA	Range	NA	NA	61 - 65	76 - 98	45 - 66	Salt present in the water, usually naturally occurring
					Average	76	78	63	87	55	
Total Hardness	mg/L	NA	NA	NA	Range	120 - 280	200 - 280	120 - 150	211 - 273	42 - 80	Sum of magnesium and calcium, naturally occurring in the environment
					Average	210	245	135	242	57	
Total Hardness	grains/ gal	NA	NA	NA	Range	7 - 16.4	11.7 - 16.4	7.0 - 8.6	12.3 - 15.9	2.45 - 4.66	Sum of magnesium and calcium, naturally occurring in the environment
					Average	12.3	14.3	7.9	14.1	3.3	

You Can **Count on Oceanside** to . . .



DELIVER
clean, safe
and reliable
water every
day



SUPPLY
affordable, cost
effective and
cost-competitive
rates



PROVIDE
a reliable
source of
drinking
water



MAINTAIN
water services to improve
your quality of life, safeguard
the economy and sustain
the environment

Fluoride

Oceanside has three sources of water: raw water that is treated at the R.A. Weese water treatment plant, groundwater that is treated at the MBGPF and treated water purchased from SDCWA. Oceanside does not add fluoride during treatment at R.A. Weese or the MBGPF. The fluoride found in these raw water sources is naturally occurring. The third source is imported treated water from SDCWA. Only the imported treated water has added fluoride. The area south of Oceanside Blvd. usually receives this fluoridated water with an average concentration of 0.7 ppm. The water delivered to all other areas in the City usually has an average fluoride level of 0.3 ppm. However, when the City's treatment plants are not operating at full capacity, some or all of the water supply for Oceanside can contain added fluoride up to 0.7 ppm.

Lead

The drinking water is tested for lead every three years and was last tested in 2018. Samples were collected inside fifty-two private homes and at the entry points to the water distribution system. There was no lead detected in the water entering the distribution system, and no detections of lead collected in private homes. Thirty-four kindergarten through twelfth-grade schools requested lead sampling in 2018 and all locations were sampled by the City of Oceanside; one elementary school was sampled in 2019. Lead in drinking water is primarily from materials and components associated with private service lines and home plumbing. If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Oceanside is responsible for providing high quality drinking water but cannot control the variety of materials used in home plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline (1-800-426-4791) or at www.epa.gov/safewater/lead

Contaminants in Drinking Water

In order to ensure that tap water is safe to drink, the U.S. Environmental Protection Agency (USEPA) and the State Water Resources Control Board (State Board) prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. State Board regulations also establish limits for contaminants in bottled water that provide the same protection for public health. Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the USEPA's Safe Drinking Water Hotline (1-800-426-4791) or at www.epa.gov/safewater



Drinking Water Disinfection

It is important to disinfect drinking water in order to destroy pathogens that can make people sick. The disinfection must be present in the drinking water system all the way to each home, business and industry. In order to achieve this long-lasting residual, the City uses chloramines to disinfect the drinking water from each source. **Chloramines provide a stable residual throughout the distribution system delivering safe drinking water to each of our customers.**

Terms and Abbreviations

AL - Regulatory Action Level, the concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.

DLR - Detection Limit for purposes of Reporting, the lowest level that can be reliably detected and quantified.

Grains Per Gallon - is a unit of water hardness defined as 1 grain (64.8 milligrams) of calcium carbonate dissolved in 1 US gallon of water (3.785 liters). It translates to 17.1 parts per million.

HAA5 - Sum of Five Regulated Haloacetic Acids (HAAs), i.e., Monochloroacetic Acid, Monobromoacetic Acid, Dichloroacetic Acid, Dibromoacetic Acid, and Trichloroacetic Acid.

HAA9 - Sum of Bromochloroacetic Acid, Bromodichloroacetic Acid, Chlorodibromoacetic Acid, Dibromoacetic Acid, Dichloroacetic Acid, Monobromoacetic Acid, Monochloroacetic Acid, Tribromoacetic Acid, and Trichloroacetic Acid.

LRAA - Locational Running Annual Average

MCL - Maximum Contaminant Level, the highest level of a contaminant that is allowed in drinking water. Primary MCLs are set as close to the PHGs (or MCLGs) as is economically and technologically feasible. Secondary MCLs are set to protect the odor, taste, and appearance of drinking water.

MCLG - Maximum Contaminant Level Goal, the level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs are set by the U.S. Environmental Protection Agency.

MRDL - Maximum Residual Disinfectant Level, the highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

MRDLG - Maximum Residual Disinfectant Level Goal, The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.

NA - Not Applicable or not specified

ND - Not Detected

NTU - Nephelometric Turbidity Units, reflecting the lack of clarity in water.

pCi/L - Picocuries per liter, a measure of radiation.

PDWS - Primary Drinking Water Standard, MCLs and MRDLs for contaminants that affect health along with their monitoring and reporting requirements, and water treatment requirements.

PHG - Public Health Goal, the level of a contaminant in drinking water below which there is no known or expected risk to health. PHGs are set by the California Environmental Protection Agency.

RAA - Running Annual Average, the monthly average of all samples computed each quarter and averaged for four consecutive quarters.

TT - Treatment Technique, a required process intended to reduce the level of a contaminant in drinking water.

Table Footnotes

a) Turbidity is a measure of the cloudiness of the water. We monitor it because it indicates the effectiveness of our filtration system. Treatment plant effluent turbidity is recorded every 15 minutes. The turbidity of the filtered water shall be less than or equal to 0.3 NTU in 95% of the measurements taken each month. Turbidity for the Carlsbad Desalination Plant effluent is required to be less than or equal to 0.1 NTU in 95% of the measurements taken each month. Turbidity shall not exceed 1.0 NTU at any time.

b) Aluminum also has a secondary MCL of 2 mg/L.

c) MWD started fluoridation treatment in 2007.

Some MWD water is used to supplement Oceanside's treated water. Oceanside does not currently fluoridate during treatment.

d) Lead and Copper are sampled every three years at consumer's taps and was last sampled in 2018. If the Action Level is exceeded in 10% of the samples (90th percentile) then the water supplier must modify the treatment process to prevent the leaching of these metals into the water from the plumbing. None of the samples exceeded the Action Levels.

e) No more than 5.0% of all monthly samples taken in the distribution system may be Total Coliform positive. In 2020, there were 1,613 samples taken throughout the City and one was positive (0%). All repeat samples were negative.

f) Sampling schedules can vary for radiological compounds, some locations are sampled up to every 9 years. Oceanside, SDCWA, and MWD all sampled for radiological constituents in 2020.

g) Compliance is based on a running annual average (RAA) of 30 distribution system samples taken each month. The City of Oceanside uses chloramines for disinfection.

h) Compliance is based on a locational running annual average (LRAA) of 8 distribution system sample locations taken every quarter.

i) Turbidity is also tested at 30 locations each month within the distribution system and reported under Secondary Standards.

j) UCMR4 = Unregulated Contaminants Monitoring Rule 4. The EPA requires monitoring in order to determine if there is a need to regulate these compounds. Testing for R.A. Weese and MBGPF was completed in 2018 and 2020. All 2020 samples were non-detect, and only 2018 values are reflected in the table.

k) Total Organic Carbon and Bromide results were collected from Weese source water.

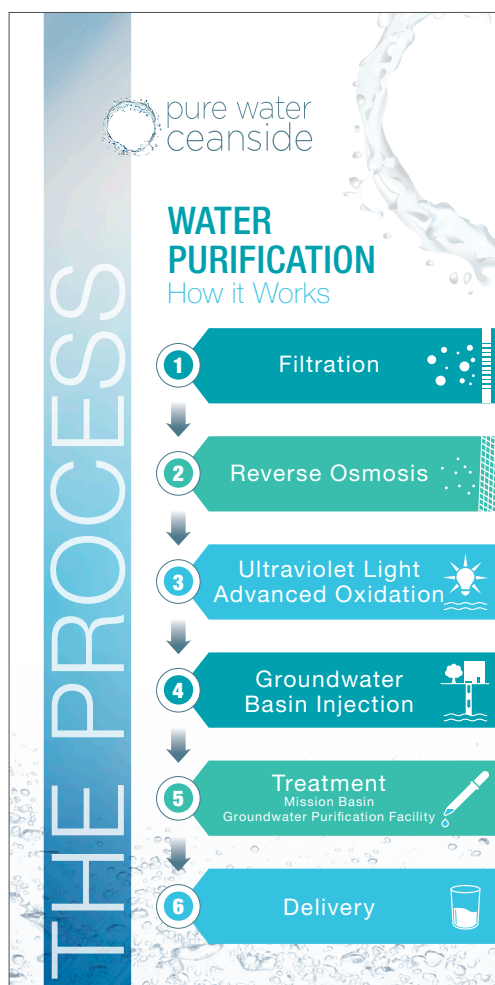
A **NEW** Source of WATER



Construction for Pure Water Oceanside is underway!

The project will be the first fully operational advanced water purification project in San Diego County and help diversify Oceanside's water supply and **REDUCE** reliance on imported water. Currently, the City of Oceanside imports almost 90% of our water supply. Pure Water Oceanside will **CREATE** 3 to 5 million gallons of drinking water each day -- enough to provide **32%** of the City of Oceanside's water supply!

This local and sustainable water source will create long lasting **BENEFITS** for the City and its water customers. Pure Water Oceanside requires half the amount of energy needed for transport imported water and reduces greenhouse gas emissions. Additionally, Pure Water Oceanside will **PROTECT** sensitive ecosystems by diverting water from being discharged into the ocean. Decreasing our reliance on imported water will also ensure the City is not as vulnerable to natural disasters such as drought which threaten imported water supplies.



Construction of the Pure Water Oceanside advanced water purification facility, pipeline and wells is on schedule with construction completion anticipated in 2022. **We want to thank the community for your patience during construction!** While the construction is temporary, the benefits of these updates will last for generations.

