

23 Frequently Asked Questions and Answers for the Proposed Rochester Hills Water Reservoir Project

Question 1: *Why are water reservoirs being considered for construction in Rochester Hills?*

Answer: Rochester Hills typically receives annual rate increases from the Detroit Water and Sewerage Department for water purchase. The City paid \$10.90 for each 1,000 cubic feet of water from DWSD ten years ago. The same amount of water cost \$26.60 in year 2010. Rates are expected to continue increasing annually from DWSD. Incorporating water storage into the Rochester Hills water distribution system currently provides the best option to significantly decrease future DWSD water rate increases.

Question 2: *When did Rochester Hills start reviewing water storage as an option?*

Answer: Rochester Hills has spent the last 8 years earnestly reviewing the potential benefits of constructing water reservoirs in the community.

Question 3: *How does DWSD know how much water is used by Rochester Hills?*

Answer: DWSD has water meters that daily monitor the total volume and rate of water that enters Rochester Hills at each of its four master metering connections.

Question 4: *What do the terms “max day” and “peak hour” refer to?*

Answer: There is a day each summer where DWSD provides the most treated water volume to its customers and this day is termed the DWSD “max day”. During the DWSD maximum day, there is a single hour of peak water rate pumped by the five DWSD treatment facilities. The highest hourly use during the max day is the “peak hour” rate for DWSD.

Question 5: *How does DWSD determine the water rate that is charged to Rochester Hills?*

Answer: DWSD uses a formula to calculate individual water rates to its customers. The formula uses community specific input data including the community’s average distance from the five treatment facilities, the average elevation difference from the five treatment facilities, the delivered water volume to the community during the DWSD max day and the recorded peak hour rate of the community water use.

Question 6: *Why is the engineering consultant proposing two locations for the construction of the water reservoirs?*

Answer: A computer program was utilized during the engineering study to determine the amount and location of the water storage. The engineering report concluded that water storage should be provided for the northwest and east-central portions of the community. A single location will not provide Rochester Hills the ability to become a maximum day water customer of DWSD.

Question 7: *Why did Rochester Hills enact an ordinance to limit the hours of lawn watering for programmable or automatic irrigation systems?*

Answer: The purpose of city council adopting the outdoor watering restriction that limits the hours of irrigating lawns, gardens, plants, trees, shrubs and other landscaping is intended to reduce the peak hour water usage. The ordinance is another proactive option pursued to limit the cost of purchasing treated water from DWSD.

Question 8: *Can strictly enforcing the outdoor watering ordinance eliminate the peak hour component of the water rate and thereby negate the need for water reservoirs?*

Answer: Strictly enforcing the outdoor watering ordinance will require that additional staff be hired for the building department or that other daily duties be decreased with the existing staff. Ordinance enforcement will require daily patrolling in the summer months, issuance of tickets, and possible follow-up through the court system. Greater ordinance enforcement may decrease the peak hour usage but will not be able to equalize the peak hour rate with the maximum day rate during the DWSD max day. Furthermore, it will not decrease the residential component of the peak hour and permit to ensure it doesn't exceed the max day rate. Strict ordinance enforcement will not solve the issue.

Question 9: *How much water does Rochester Hills use in an average day, during the maximum day and throughout the whole year?*

Answer: The Rochester Hills average daily water use for 2010 is 8.18 million gallons. During the maximum day (July 7, 2010), Rochester Hills used 18.5 million gallons of water. Rochester Hills almost used a total of 3 billion gallons of water in 2010 (8.18 million gallons per day x 365 days per year).

Question 10: *What would the difference in water rates be in 2010 if Rochester Hills had water reservoirs and was a max day customer?*

Answer: According to DWSD supplied information, the Rochester Hills rate for purchasing water in 2010 based on an estimated usage of 410 million cubic feet would have been approximately \$5.98 per 1,000 cubic feet cheaper with water storage. The cost difference during 2010 with and without water storage is calculated at approximately \$2.45 million dollars. Rochester Hills has approximately 22,500 water customer accounts. On average, the \$2.45 million dollars is equivalent to a reduced water purchase of \$108.89 per account.

Question 11: *How much water storage is being recommended by the engineering consultant to Rochester Hills?*

Answer: Construction of two 3-million gallon storage reservoirs is being recommended. These sizes were based on a computer program result to determine what volume is necessary for Rochester Hills to become a DWSD max day customer while also including an additional volume allowance for fire flow reserve.

Question 12: *Someone told me that I will need to purchase flood insurance because my home is near a proposed reservoir site. Is that true?*

Answer: Flood insurance is not required. The City has confirmed this understanding with the permitting agent, the Michigan Department of Environmental Quality. In fact, the MDNRE southeast district representative said that she is not aware of this being required of any water storage facility in the state. A water storage tank manufacturer representative was also contacted and reported that he knows of no instance where flood insurance was required as a result of being adjacent to a water storage facility.

Question 13: *Someone told me that the water reservoirs will be noisy because of the pumps will be running all night. Is this true?*

Answer: The water reservoirs will fill with system pressure from the water distribution system. The reservoir filling time is expected to occur between 11 p.m. and 5 a.m. Thus, there is no expected use of the water reservoir pumping station pumps during this time. The pumps actually are used to pump the water from the reservoir into the local distribution system pipes.

Question 14: *How noisy will the pumps or emergency generator be when they run?*

Answer: It is not expected that homeowners will hear noise from the reservoir pumping station pumps. City staff has visited pumping facilities in other communities having water storage and have reported that a slight hum was heard when standing immediately adjacent to the pumping station with the building doors closed. There was no measurable noise meter reading increase 50 feet away from the pump station than what measured 100 feet away. Thus, any additional noise contribution from the pump station pumps was negated within 50 feet of the facility. The emergency generator is proposed for location inside of the pumping station to minimize noise during the weekly exercising. Furthermore, mufflers to minimize generator exhaust noise will be required.

Question 15: *Someone told me that the reservoir and pump station is required to be surrounded by chain link fencing with barbed wire. Is this true?*

Answer: No, fencing and barbed wire is not mandated. Fencing is recommended to discourage persons from vandalizing the storage and pumping station facility. Thus, the Rochester Hills water reservoir and pump station is proposed to incorporate fencing. Eight-foot high chain link fencing is being recommended but a more decorative version could be installed if the project progresses through future planning commission and city council approvals. Barbed wire fencing is not being proposed or contemplated for the project.

Question 16: *Someone told me that the water reservoir proposed at the Tienken Road will be covered in lights. Is this true?*

Answer: The water reservoir itself will not have any lighting attached to it. There are three lights proposed above the three doorways of the pumping station. The wall-pak lighting is similar to a light installed for a residential garage's utility door. One additional site area light may be incorporated east of the pump station.

Question 17: I have seen many different costs stated for the water reservoirs and the subsequent operations and maintenance costs. What is the current estimate?

Answer: The construction cost for the water reservoir is currently estimated at \$12 million dollars. The engineering consultant has suggested that operations and maintenance costs will be approximately \$70,000 per year.

Question 18: How does Rochester Hills propose to pay for the water reservoirs? Will bonds be sold or will the Drinking Water Revolving Loan Fund (DWRFL) be pursued?

Answer: The City proposes to borrow from its own available fund balances. Several funds can be used to generate the sufficient funding necessary to pay off the reservoir construction debt. Any interest charges would be paid back to City funds used for borrowing instead of the bond selling agent or the DWRFL loan program.

Question 19: We can't afford our police protection or to rebuild our subdivision streets. Why would the City choose to spend its money on this project instead?

Answer: The Rochester Hills water and sewer fund is a fund that is solely supported by the users of the water and sewer systems. Monies in this fund cannot be redirected to fund police or local road services. Water and sewer funding can be used to construct new facilities, maintain existing water and sewer infrastructure or replacement of the existing system. The City would choose to spend its money on this project if it will benefit residents by minimizing future DWSD rate increases and/or improving the level of service to the Rochester Hills water customers.

Question 20: I have been told that having a water reservoir adjacent to my subdivision will decrease my home's property value. Is this true?

Answer: The Rochester Hills Assessing Department has researched other communities that have water storage. The Department has not found any studies, nor have any been provided to the Department, that supports decreased assessments due to water reservoir constructions. Although there is no supporting documents that justify that water reservoirs decrease a subdivision's property value, future trending of area home sale prices would be tracked.

Question 21: How was the 10-acre parcel adjacent to Rochester Adams High School purchased and is it legal to use it for the construction and operation of a water reservoir?

Answer: The Rochester Hills City Attorney was asked to comment on the ability to legally use the 10-acre site and the alternate Nowicki Park site. In summary, both properties were purchased with funds from a 1990 bond sale. Since the proceeds from the bond sale have been repaid by Rochester Hills, neither property has restrictions that would prevent Rochester Hills from lawfully using the sites for another public purpose including the construction of a water storage reservoir facility.

Question 22: Why would the City spend money to investigate this issue?

Answer: Rochester Hills owes an obligation to the water users to investigate ways to reduce costs and improve services. The water reservoir project is an option that accomplishes both of these objectives by helping to reduce or offset future DWSD rate increases and also increasing pressure control and emergency fire flow storage volume within our local water distribution system.

Question 23: Will the City's AAA credit rating be jeopardized if the reservoir project moves forward?

Answer: No. The currently proposed funding method is to borrow money internally from funds that do not carry debt. No money is intended to be borrowed from outside investors and no money from sources already committed to debt retirement.