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CITY of NOVI CITY COUNCIL

Agenda Item 3
March 9, 2009

SUBJECT: Approval of Ordinance 09-138.02 to amend the City of Novi Code of Ordinances, as Amended, Chapter 34, "Utilities", Article II, "Water Supply System", Division 1, in order to amend the alternate day lawn watering section to include a requirement to operate underground irrigation systems during non-peak hours of 11:00 p.m. and 5:00 a.m. Eastern Standard Time, and to amend amount of fines for violation of Subsection (a). **First Reading**

SUBMITTING DEPARTMENT: Finance/Water & Sewer

CITY MANAGER APPROVAL: *put for CSP*

BACKGROUND INFORMATION:

The rate charged by Detroit Water & Sewer Department (DWSD) is computed using three factors: distance, elevation and peak demand. Distance from the source and elevation factors are fixed by the City's geographic location. The peak demand factor (maximum day and maximum hour) can be managed through water conservation efforts, and storage within the system.

Over the last several years, many of the water contracts between Detroit metro Communities and DWSD have expired. DWSD has been working with communities to create a long term contract that would be acceptable to all parties. In 2003, the City began negotiations (which are on going) with DWSD for a new water contract. During the negotiations with DWSD and through examination of other communities' methods to reduce their water rates, it became clear that reducing the City's peak demand would be the most effective way to reduce our wholesale water rate

During our water contract negotiations with DWSD, they have indicated that a reduced water rate is possible but is contingent upon Novi's commitment to a lower max day and peak hour usage.

In order to achieve these lower demands, DWSD requires an aggressive public education program to be a part of a new water contract with a reduced rate, a mandatory odd/even Lawn Watering Ordinance with a requirement to operate underground irrigation systems during the exclusionary period, and an internal irrigation policy for municipal property.

Attached are the education materials, and the proposed ordinance.

RECOMMENDED ACTION: Approval of Ordinance 09-138.02 to amend the City of Novi Code of Ordinances, as Amended, Chapter 34, "Utilities", Article II, "Water Supply System", Division 1, in order to amend the alternate day lawn watering section to include a requirement to operate underground irrigation systems during non-peak hours of 11:00 p.m. and 5:00 a.m. Eastern Standard Time, and to amend amount of fines for violation of Subsection (a). **First Reading**

Mayor Landry				
Mayor Pro Tem Gatt				
Council Member Burke				
Council Member Crawford				

Council Member Margolis				
Council Member Mutch				
Council Member Staudt				

STATE OF MICHIGAN

COUNTY OF OAKLAND

CITY OF NOVI

ORDINANCE NO. 09-138.02

AN ORDINANCE TO AMEND THE CITY OF NOVI CODE OF ORDINANCES, AS AMENDED, CHAPTER 34, "UTILITIES," ARTICLE II, "Water Supply System," DIVISION 1, IN ORDER TO AMEND THE ALTERNATE DAY LAWN WATERING SECTION TO INCLUDE A REQUIREMENT TO OPERATE UNDERGROUND IRRIGATION SYSTEMS DURING NON-PEAK HOURS OF 11:00 PM AND 5:00 AM EASTERN STANDARD TIME AND TO AMEND AMOUNT OF FINES FOR VIOLATION OF SUBSECTION (a).

Sec. 34-24. Alternate day lawn watering; water supply emergencies.

(a) It shall be unlawful for any person to utilize water from the City of Novi Water Supply System for the watering of lawns or landscaping except on an alternate day basis. An alternate day basis of watering permits the watering of lawns and landscaping on even-numbered days for property with an even-numbered street address and on odd-numbered days for property within an odd-numbered street address. Further, for those properties in the City of Novi that are serviced by an automatic, programmable underground irrigation system, outdoor watering, including the sprinkling of lawns and landscaping, shall only be done during non-peak hours of 11:00 PM to 5:00 AM Eastern Standard Time. A water user may manually irrigate landscaping at any time, provided the irrigation is not connected to an automatic, programmable underground system, and is attended and monitored by the water user and adheres to the alternate day requirement as stated above. Also, an automatic, programmable underground irrigation system may occasionally be used in unprogrammed manual mode for brief periods and as necessary for testing, repair and winterizing purposes. The manager of the department of water and sewer may, upon written request, provide exceptions to the above restriction in the case of new lawn or landscaping installations, or where necessary to prevent imminent financial loss to the water user. This is not intended to prohibit the recreational use of sprinklers by children.

(b) Determination of water supply emergency. A water supply emergency shall be deemed to exist whenever the manager of water and sewer finds on the basis of drought conditions, depletion of water supply, reduction in water pressure or other reasons that there is a threat of loss of water supply to the community or a portion of the community, and causes a declaration of such water supply emergency to be publicly announced by broadcast from a radio or television station with a normal operating range covering the city. A water emergency may be declared when the manager of water and sewer receives notification from the Detroit Water and Sewage Department in conjunction with the

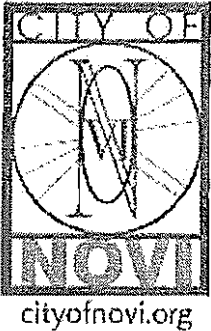
Department in conjunction with the water and radiological protection division or the water quality division of the state department of environmental quality that the supply or pressure demand for water cannot be accommodated and general public welfare is likely to be endangered.

- (c) A declaration of water emergency shall by its express terms prohibit:
- (1) The watering of lawns and landscaping and all outdoor water use except on an alternate day basis, permitting such use solely on even-numbered days for property with an even-numbered address and on odd-numbered days for property with an odd-numbered address; or
 - (2) All watering of lawns and landscaping and all outdoor water use, when a prohibition under subpart (c)(1) is deemed not sufficient.
- (d) The manager of water and sewer shall cause such declaration to be posted at the city hall and be publicly announced by broadcast from a radio or television station with a normal operating range covering the city, and may cause the declaration to be further announced in newspapers of general circulation within the city when feasible.
- (e) The director of public services or his/her designee shall make or cause to be made a record of each time and date when any declaration is announced to the public in accordance with this section.
- (f) A water supply emergency shall be deemed to exist irrespective of whether broadcast notification is provided under subsection (d), as to persons otherwise provided with direct notice of such a water supply emergency.
- (g) It shall be unlawful for any person to utilize water from the city water supply system for any type of outdoor use, in contravention of a declared water supply emergency, other than responding to a fire emergency. The prohibition shall remain in effect twenty-four (24) hours per day, seven (7) days per week until the water supply emergency is declared ended by the manager of water and sewer. The manager of water and sewer may provide exceptions to the prohibition of this section where necessary to prevent imminent financial loss to a water user.
- (h) A person who violates subsection (a) is responsible for a civil infraction. For a first violation a person shall be liable for a civil fine of not more than one-hundred and fifty dollars (\$150.00) For a second or subsequent violation a person shall be liable for a civil fine of not more than five-hundred (\$500.00). Such civil infractions shall be processed in accordance with the procedures set forth in Sections 741 to 750 of 1949 PA 300, as amended.

(Ord. No. 97-138.01, Pt. I, 9-22-97; Ord. No. 07-37.33, Pt. I, 3-5-07)

Editor's note: Ordinance No. 97-138.01, Pt. I, adopted Sept. 22, 1997, amended § 34-24 to read as herein set out. Formerly, such section pertained to water supply emergency; determination; prohibition on outside use of water and derived from Ord. No. 88-138, §§ 2.01, 3.01, 7-11-88; Ord. No. 97-62.02, Pt. III, 6-16-97.

MEMORANDUM



TO: KATHY SMITH-ROY
FROM: TINA GLENN
CC: ROB HAYES
BRIAN COBURN
TIM SIKMA
SUBJECT: WATER DEMAND MANAGEMENT
DATE: FEBRUARY 25, 2009

2/26/09
To: Mayor and City Council Members

For your review. Future consideration of the ordinance will be requested, you can see the public information efforts. A similar program has been implemented in Troy. These steps are most attainable way to lower our relative bulk DWSD water rate.

[Handwritten signature]

The rate charged by Detroit Water & Sewer Department (DWSD) is computed using three factors: distance, elevation and peak demand. Distance from the source and elevation factors are fixed by the City's geographic location. The peak demand factor (maximum day and maximum hour) can be managed through water conservation efforts, and storage within the system.

Over the last several years, many of the water contracts between Detroit metro Communities and DWSD have expired. DWSD has been working with communities to create a long-term contract that would be acceptable to all parties. In 2003, the City began negotiations (which are on going) with DWSD for a new water contract. During the negotiations with DWSD and through examination of other communities' methods to reduce their water rates, it became clear that reducing the City's peak demand would be the most effective way to reduce our wholesale water rate.

In 2007, the City learned that DWSD would be increasing our wholesale water rate by approximately 24%. This is one of the largest increases the City has received from DWSD; with the average increase over the last ten years of approximately 6% per year. The City's average daily use is 6.4 million gallons, maximum daily use is 2.5 times the average daily use and peak demand is 4.7 times the average daily use. The new Water Contract being offered by DWSD provides an exemption from peak hour water usage between the hours of 11 PM and 5 AM Eastern Standard Time. By shifting lawn irrigation usage to the exempt period the City would reduce peak demand (DWSD refers to this as Demand Management) and provides an opportunity to lower our wholesale water rate.

During our water contract negotiations with DWSD, they have indicated that a reduced water rate is possible but is contingent upon Novi's commitment to a lower max day and peak hour usage. As shown on Exhibit A attached, on August 18, 2008 (DWSD's Max Day) our peak hour occurred between the hours of 5:00 AM to 6:00 AM. By shifting this peak into DWSD's exclusionary period, we will be able to reduce our peak hour demand. DWSD would require us to reduce our max day demand from 20.18 million gallons per day (mgd) to 18.77 mgd (2009/10 demand proxy) and our peak hour demand from 37.54 mgd to 34.90 mgd. Our recent max day demand was 16.08 mgd and our peak hour demand was 29.92 mgd.

In order to achieve these lower demands, DWSD requires an aggressive public education program to be a part of a new water contract with a reduced rate, a mandatory odd/even Lawn

Watering Ordinance with a requirement to operate underground irrigation systems during the exclusionary period, and an internal irrigation policy for municipal property.

Accordingly, I have prepared the attached "*Water Demand Management Procedures*" and have included copies of various water management educational documents that we have prepared thus far including:

1. Community Calendar insert. Additionally, a "watering time clock" is being displayed on various days throughout the watering season to educate on the desired time to water.
2. Engage Article featuring the first "In the know about H2O" publication.
3. Newsletter to be mailed with the water and sewer billings in the months of March, April & May.
4. Internal Irrigation Policy for Municipal Property.
5. Lawn Watering Ordinance amendment.
6. Budget write-up to be included in the 2009/10 budget document.

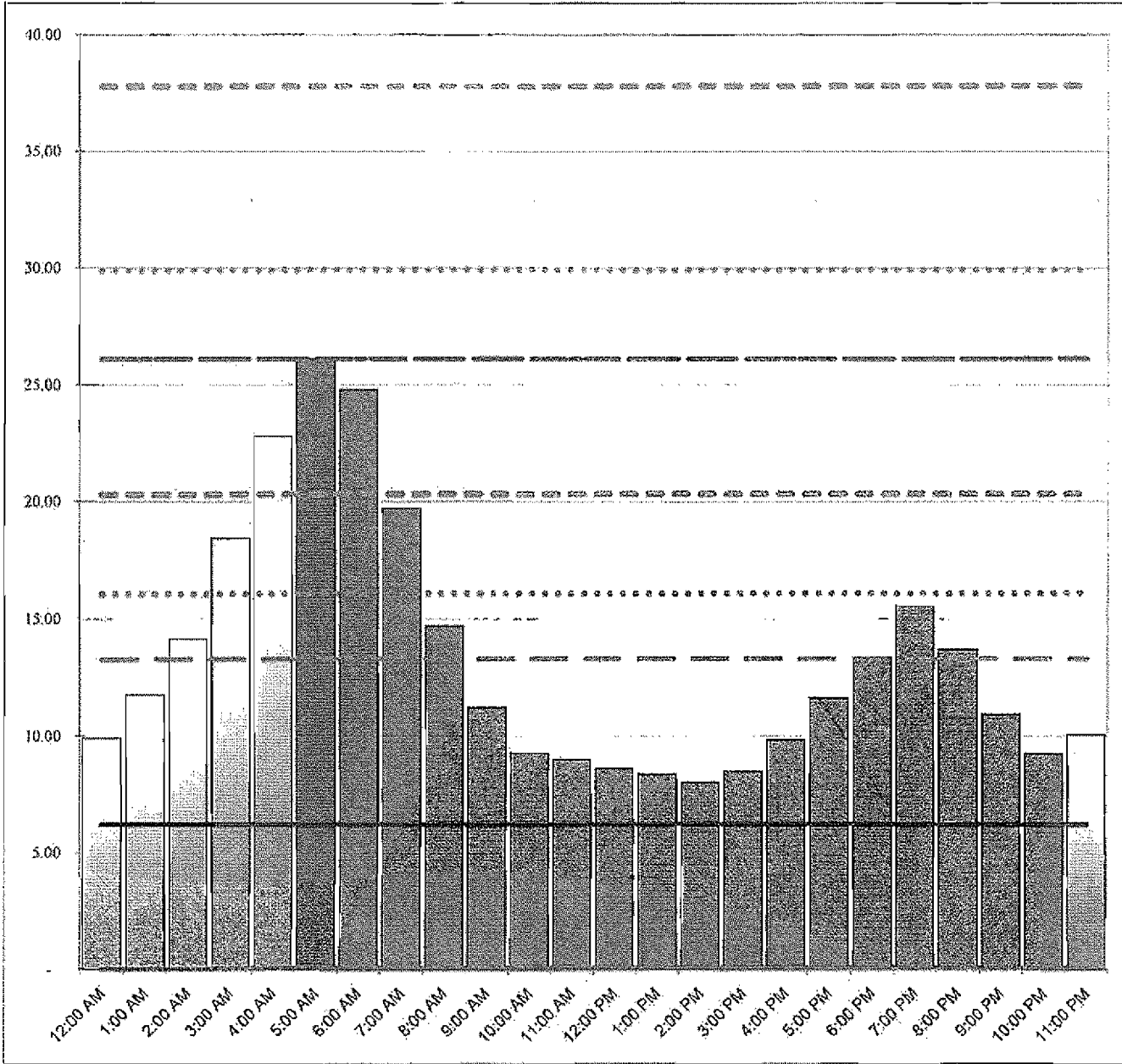
I will continue to work with Tim Sikma to coordinate efforts in promoting the public education campaign and will work with Treasury and Water and Sewer staff to assure that we are all communicating a clear and consistent message to Residents.

I appreciate your input and look forward to any suggestions you might have moving forward.

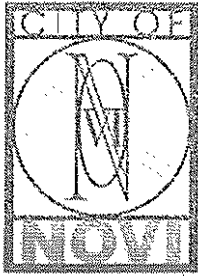
Exhibit A

Wholesale Customer Flow Profile - Hourly Flows
 Summer 2008 Data - DWSD Max Day August 18, 2008

Novi



Hourly Flows			
Excluded from Peak Hour Defn			
Coincidental Peak Hour	Average Day	Max Day	Coincident Peak Hour
	Flow - mgd	13.32	26.11
	Prior Max	16.08	29.92
	Prior Proxy Adjusted 20% + Avg Flow	19.30	35.90
	Contract Max		
			Non-Coincident Peak Hour
			26.11
			29.92
			35.90



cityofnovi.org

CITY OF NOVI
POLICIES & PROCEDURES
Water Demand Management Procedures

Purpose:

To increase public education initiatives to more aggressively inform public of the need to shift peak demand usage into non-peak hours in order to receive a reduced wholesale water rate from our wholesale provider, the Detroit Water and Sewerage Department (DWSD). The following methods will be utilized to communicate this message.

Methods:

1. Public education:

- Educate community about the need to water on odd/even days to reduce our "max day" volume.
- Educate community about the need to water between 11 PM – 5 AM to reduce our "peak day"

a. Mass Communication:

1. **Community Calendar** – "watering time" clock to be displayed on various days throughout the watering season. Calendar Insert to display facts & watering times (see attached).
2. **Engage Articles** - Two H2O *In the know* articles to be published first and second quarters (see attached).
3. **Residential Educational Mailings** –to be included with water billings for March, April & May (District 1 – 2nd quarter, District 2 – 1st quarter, District 3 – 1st quarter). Letter to include education about how our rates are determined, how we can work together as a Community to shift our peak flow and reduce our water rates (see attached).
4. **Commercial Education Mailings** (including Irrigation Contractors) – letter to be mailed prior to watering season (see attached).
5. **Cable Announcement** – will be airing an 8-9 minute skit providing educational information about water rates and ways to shift peak demand. To be coordinated with Community Relations.
6. **Website** – education information to be provided on our website in early spring prior to watering season. To be coordinated with Community Relations.

b. Direct Communication:

7. **Subdivision Association Meetings** - Water staff will attend subdivision meetings to provide information & assistance in setting irrigation systems to water during non-peak hours. To be completed by Tim Sikma.

8. **Counter staff in Treasury/Water Department** – All staff will be trained to inform customer's that visit the counter of our irrigation policy and information about the advantages of watering during non-peak hours. To be completed by Tina Glenn.
 9. **Chamber of Commerce** – Water staff to attend annual luncheon to pass out fliers and offer assistance in programming sprinkler systems for businesses. To be completed by Tim Sikma.
 10. **Schools** – Water staff to visit schools to provide education to students about the importance of water conservation. To be completed by Tim Sikma.
 11. **Door Hangers** – Water department will utilize temporary, seasonal staff to distribute door hangers as reminders to those customer's not adhering to the recommended watering times. To be completed by Tim Sikma.
 12. **Provide assistance in programming irrigation systems for Associations and Commercial Users** – Water Department will utilize part-time, seasonal staff to assist programming irrigation systems to operate during the desired hours.
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2. ***Internal Policy regarding irrigation of municipal property*** – See attached.
 3. ***Ordinance*** – See attached proposed amendment to existing Ordinance.



Conserve water to help control rates. By working together as a community, we can make simple changes in our water usage that will have an impact on the water rate charged by DWSD. Here are ways you can help.

Step One: Economize!

Look at your water habits developed over a lifetime. A lot of water goes down the drain because we have always thought of water as being plentiful and cheap. Typically, inside your house, bathroom facilities constitute nearly 75% of the water used. Become conscious of the amount of water you use, and look for ways to use less whenever you can.

Step Two: Repair Leaks!

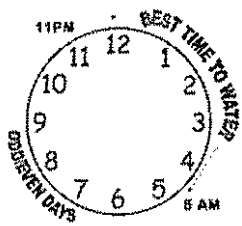
A leak of just one drop per second wastes 2,400 gallons of water a year. Leaks are one of the great enemies of your water conservation program and they can't be taken lightly.

Step Three: Install Water Saving Devices

There are many devices you can buy and install fairly easily to reduce your water consumption. These include faucet aerators; flow regulators for shower heads; and displacement devices for toilets to reduce water consumption. Investing a little money, time and labor can have big paybacks to reduce water use.

Step Four: Reuse Water

Unused or slightly used water is often suitable for other purposes, even with no treatment or filtration. When maximum conservation is called for, make the most of any water before you let it go down the drain!



During the summer months, lawn irrigation has a significant impact on our peak hour and maximum day usage which are two major factors used by Detroit Water and Sewerage Department (DWSD) in determining our wholesale water rates. Your cooperation in limiting your lawn and landscaping irrigation to the following days (alternate odd/even) and times (11:00 PM – 5:00 AM) will help us, as a community, receive a lower wholesale water rate.

1. Water your lawn and landscaping on alternate odd/even days as stated in our lawn watering Ordinance as follows, "It shall be unlawful for any person to utilize water from the City of Novi Water Supply System for the watering of lawns or landscaping except on an alternate day basis. An alternate day basis of watering permits the watering of lawns and landscaping on even-numbered days for properties with an even-numbered address and on odd-numbered days for properties with an odd-numbered street address".

2. Water your lawn between the hours of 11:00 PM and 5:00 AM. Watering during these hours will also help to reduce our peak hour demand thereby helping to reduce our wholesale water rates. Also, watering your lawn during these hours will help reduce evaporation.

The snow must go...but where?

The Department of Public Work's goal is to provide a bare pavement quality recognized by many Snow Belt cities. Proper control of parking and traffic contributes significantly to reducing response time and operational costs. We ask that you cooperate in the following ways:



If you hire a private contractor for snow removal services please remind them not to plow snow into the public roadway. This is not only disruptive to local traffic and snow removal operations, but it is illegal.

- Refrain from parking vehicles on any street during snow and sleet. If a snow emergency is declared, all parked vehicles must be removed from the street.
- Do not use snow blowers to blow snow in the street. Remember the area around your mailbox must be cleared or your mail will not be delivered.
- Do not let children play on the mounds of snow near the roadway. It is difficult for snowplow operators to see behind or over the mounds, so please caution your children.

The highest priority for the DPW during the winter months is safe winter driving. To ensure the safety of motorists traveling in Novi, the following priorities for removing snow and ice from local roads are:

- Major road networks and school bus routes
- Police and fire facilities, bridges, hills and curves
- The balance of the local roads

If you have any questions or concerns regarding snow removal, contact the DPW at 248.735.5640

In the know...about H₂O

You may have noticed when you received your water bill recently that our water rate has increased. The following information is provided to share how our water rate is determined and what you can do to help reduce our water rate.



Did you know that the City of Novi purchases treated water from Detroit Water and Sewerage Department (DWSD)? DWSD operates the largest water system in the State of Michigan and supplies wholesale water to 126 communities in southeastern Michigan. By law, DWSD can only recover the cost of service, it cannot make a profit. Therefore, the rate they charge to each community comprises costs for water treatment, energy costs to maintain water pumps, water mains, and storage tanks necessary to transport water to our community, and new and rehabilitative Capital Improvements Projects to replace and maintain aging systems. These costs are divided among their water customers. Each customer's rate is based on distance from the water treatment plant (Novi is over 50 miles), elevation (it costs more money to pump at higher elevations), the maximum day demand (water usage in a 24 hour period during the summer), peak hour demand (water usage over a one hour period during the summer) and annual water usage.

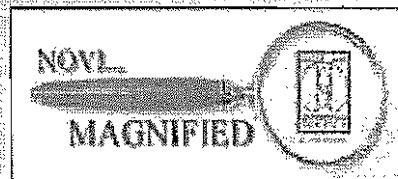
Did you know that over 75% of the City's water & sewer budget (excluding depreciation) is for payments to the City of Detroit Board of Water Commissioners and Oakland County Drain for water and wastewater services? Also, the City of Novi has one of the lowest markups on Detroit's water rate. Our markup of 17.53% is far below the 125% average markup of most communities.

Did you know that the City is currently working with DWSD to reduce our rate? While we cannot change the distance we are from the water treatment plant or our City's unique elevation, we can make changes that will impact our max day demand and peak hour demand thereby reducing the rate we pay to DWSD. By working together as a community, we can make simple changes in our water usage that will have an impact on the water rate charged by DWSD.

While much of the water used during our peak hour and max day is from lawn irrigation, there are many ways you can help. Below are a few water conservation ideas to help any time of the year.

- Limit your water usage during the hours of 5 and 9 AM and 6 and 10 PM when demand on DWSD's system is the highest (especially during summer months - irrigate your lawns between the hours of 11 PM and 5 AM).
- Only wash full loads of laundry and save 300-800 gallons per month!!
- Wait until your dishwasher is fully loaded before running. A dishwasher usually uses less water than washing dishes by hand. But if you wash dishes by hand, fill the sink for rinsing, don't leave water running unless sink is plugged, and turn faucet off when not in use. Water Savings: 2.5 gallons per minute
- Water your plants only when needed.
- Check for and fix leaky faucets and toilets (contact the Water Department for dye strips to test for leaky toilets).
- Toilet ≠ Trash! Throw that used tissue into the trash instead of the toilet and save 400-600 gallons per month!
- Soap, Rinse, and Go! Keep showers to less than 10 minutes. Water Savings: up to 700 gallons per month. Baths/showers can use up to 50 - 100 gallons of water.
- Install water-saving devices on faucets and shower heads. Faucet aerators are incredibly cheap (\$2-5), easily installed (think light bulb), and will save 4.7 gallons per day.
- Place plastic jugs filled with sand or stones in your toilet tank to reduce the amount of water used per flush.
- Turn off the faucet while brushing your teeth, shaving or washing your hands. Water Savings: over 240 gallons per month
- Consider water efficiency - when purchasing new appliances like laundry machines or dishwashers, consider water efficient models. They use up to 40% less water per year.

Interested community members may sign up to receive the e-Newsletter by visiting cityofnovi.org, clicking on the Novi...Magnified icon, and entering their e-mail address. Subscribers who wish to de-activate their service can do so at any time by following the instructions in each Novi...Magnified. For more information, contact the Community Relations Office at 248.735.5628.





In the know about H₂O



Control our Peaks...Control our Rate

As warmer weather approaches so too does lawn watering season. While watering and maintaining your landscaping is an important part of enhancing the attractiveness and value of your property, you may not know that the time of day you water your lawn has an impact on our water rates. We encourage you to read the information below and do your part to help control our water rate.

How water rate is determined

The City of Novi purchases wholesale water from the Detroit Water and Sewerage Department (DWSD). DWSD determines wholesale water rates to suburban communities on an annual basis based on estimated revenue requirements for the upcoming season and each community's usage requirements. DWSD's rate to each community is determined by the following factors:

- Distance from the water treatment plant (Novi is over 50 miles)
- Elevation (it costs more money to pump at higher elevations)
- Annual water usage
- Maximum day demand (water usage in a 24 hour period during the summer)
- Peak hour demand (water usage over a one hour period during the summer)

The factor that has the most impact on our water rate is peak hour demand; peak demand represents 65% of our total rate from DWSD. On average, during our peak hour, we use 4.7 times more water than our average daily consumption.

How you can help shift our peak demand

Lawn irrigation is the main contributor to our peak hour demand.

If we shift when we water our lawns into non-peak hours (11 pm to 5 pm), we will be able to reduce rate increases we have been receiving from DWSD (in 2008/09 we received a 24% rate increase). If you have an underground lawn irrigation system, please set your irrigation system to turn "on" and "off" between the hours of 11 pm and 5 am. Also, please adhere to our

mandatory Lawn Watering Ordinance which states, in part, "it is unlawful for any person to utilize water for the watering of lawns or landscaping except on an alternate day basis." Please watch for future possible amendments to this Ordinance which may include a mandatory requirement for automatic irrigation systems to be set to run during non-peak hours. By watering during non-peak hours, we will reduce our peak hour demand and by watering on alternate days, we will reduce our maximum day demand which will help control our water rates. For more information about our rates or for water conservation tips, please visit cityofnovi.org or contact the Water Department at 248.347.0496.



CITY OF NOVI
POLICIES & PROCEDURES
Internal Irrigation Policy for Municipal Property

OVERVIEW:

In an effort to reduce the City of Novi's bulk water rate that is charged by the Detroit Water and Sewerage Department (DWSD) the following irrigation policy will be instituted at all City properties where automatic watering systems are used in an effort to reduce the City's maximum day and the maximum peak hourly demand. The main directive of this policy is to ensure that the City is adhering to the Lawn Watering Ordinance and is leading by example by setting their irrigation systems to run between the hours of 11:00 PM and 5:00 AM on an alternate day basis.

POLICY:

- All Municipal properties that have automatic watering systems will set their systems to run between the hours of 11:00 PM to 5:00 AM on an odd/even day basis. The only time they will operate during the day is when the system needs to be checked for leaks or repairs to the system are required.
- The Department of Parks & Recreation will operate their irrigation systems between the hours of 11:00 PM to 5:00 AM on alternate days **except** when fields require additional watering and private wells are being utilized. At these locations, the Department will promote an educational program that informs the public that these systems are operated off of well systems and that this is a green effort to improve landscaping while keeping costs low within the community. Whenever possible, the Parks & Recreation Department will irrigate during the recommended hours to ensure that the wrong precedence or perception is not being conveyed to the public.

STATE OF MICHIGAN

COUNTY OF OAKLAND

CITY OF NOVI

ORDINANCE NO.

AN ORDINANCE TO AMEND THE CITY OF NOVI CODE OF ORDINANCES, AS AMENDED, CHAPTER 34, "UTILITIES," ARTICLE II, "Water Supply System," DIVISION 1, IN ORDER TO AMEND THE ALTERNATE DAY LAWN WATERING SECTION TO INCLUDE A REQUIREMENT TO OPERATE UNDERGROUND IRRIGATION SYSTEMS DURING NON-PEAK HOURS OF 11:00 PM AND 5:00 AM EASTERN STANDARD TIME AND TO AMEND AMOUNT OF FINES FOR VIOLATION OF SUBSECTION (a).

Sec. 34-24. Alternate day lawn watering; water supply emergencies.

(a) It shall be unlawful for any person to utilize water from the City of Novi Water Supply System for the watering of lawns or landscaping except on an alternate day basis designated from the property address. An alternate day basis of watering permits the watering of lawns and landscaping on even-numbered days for property with an even-numbered street address and on odd-numbered days for property within an odd-numbered street address. Further, for those properties in the City of Novi that are serviced by an automatic, programmable underground irrigation system, outdoor watering, including the sprinkling of lawns and landscaping, shall only be done during non-peak hours of 11:00 PM to 5:00 AM Eastern Standard Time. A water user may manually irrigate landscaping at any time, provided the irrigation is not connected to an automatic, programmable underground system, and is attended and monitored by the water user and adheres to the alternate day requirement as stated above. Also, an automatic, programmable underground irrigation system may occasionally be used in unprogrammed manual mode for brief periods and as necessary for testing, repair and winterizing purposes. The manager of the department of water and sewer may, upon written request, provide exceptions to the above restriction in the case of new lawn or landscaping installations, or where necessary to prevent imminent financial loss to the water user. This shall not be deemed is not intended to prohibit the recreational use of sprinklers by children.

(b) Determination of water supply emergency. A water supply emergency shall be deemed to exist whenever the manager of water and sewer finds on the basis of drought conditions, depletion of water supply, reduction in water pressure or other reasons that there is a threat of loss of water supply to the community or a portion of the community, and causes a declaration of such water supply emergency to be publicly announced by broadcast from a radio or television station with a normal operating range covering the city. A water emergency may be declared when the manager of water and sewer receives

notification from the Detroit Water and Sewage Department in conjunction with the water and radiological protection division ~~or the water quality division~~ of the state department of environmental quality that the supply or pressure demand for water cannot be accommodated and general public welfare is likely to be endangered.

(c) A declaration of water emergency shall by its express terms prohibit:

(1) The watering of lawns and landscaping and all outdoor water use except on an alternate day basis, permitting such use solely on even-numbered days for property with an even-numbered address and on odd-numbered days for property with an odd-numbered address; or

(2) All watering of lawns and landscaping and all outdoor water use, when a prohibition under subpart (c)(1) is deemed not sufficient.

(d) The manager of water and sewer shall cause such declaration to be posted at the city hall and be publicly announced by broadcast from a radio or television station with a normal operating range covering the city, and may cause the declaration to be further announced in newspapers of general circulation within the city when feasible.

(e) ~~The manager-director of public works services or his/her designee~~ shall make or cause to be made a record of each time and date when any declaration is announced to the public in accordance with this section.

(f) A water supply emergency shall be deemed to exist irrespective of whether broadcast notification is provided under subsection (d), as to persons otherwise provided with direct notice of such a water supply emergency.

(g) It shall be unlawful for any person to utilize water from the city water supply system for any type of outdoor use, in contravention of a declared water supply emergency, other than responding to a fire emergency. The prohibition shall remain in effect twenty-four (24) hours per day, seven (7) days per week until the water supply emergency is declared ended by the ~~superintendent-manager~~ of water and sewer. The manager of water and sewer may provide exceptions to the prohibition of this section where necessary to prevent imminent financial loss to a water user.

(h) A person who violates subsection (a) is responsible for a civil infraction. For a first violation a person shall be liable for a civil fine of not more than ~~five dollars (\$5.00)~~ one-hundred and fifty dollars (\$150.00). For a second or subsequent violation a person shall be liable for a civil fine of not more than ~~ten dollars (\$10.00)~~ five-hundred (\$500.00).

Such civil infractions shall be processed in accordance with the procedures set forth in Sections 741 to 750 of 1949 PA 300, as amended.

(Ord. No. 97-138.01, Pt. I, 9-22-97; Ord. No. 07-37.33, Pt. I, 3-5-07)

Editor's note: Ordinance No. 97-138.01, Pt. I, adopted Sept. 22, 1997, amended § 34-24 to read as herein set out. Formerly, such section pertained to water supply emergency; determination; prohibition on outside use of water and derived from Ord. No. 88-138, §§ 2.01, 3.01, 7-11-88; Ord. No. 97-62.02, Pt. III, 6-16-97.

DRAFT

Water Conservation and Demand Management:

The City of Novi is a wholesale customer community of the Detroit Water and Sewerage Department (DWSD). On April 20, 1964 the Village of Novi entered into an agreement with the DWSD for the purpose of purchasing treated water for distribution throughout the Village. From the initial system of approximately three miles of water mains and 500 customers the system has grown to 288 miles of water mains and over 13,900 customers. For the fiscal year ended June 30, 2008 the City purchased more than 2.4 billion gallons of water. The major source of the water supplied to the City of Novi is from Lake Huron via the DWSD Port Huron Water Treat Plant.

The rate charged by DWSD is computed using three factors: distance, elevation and peak demand. Distance from the source and elevation factors are fixed by the City's geographic location. The peak demand factor (maximum day and maximum hour) can be managed through water conservation efforts, and storage within the system.

Over the last several years, many of the water contracts between Detroit metro Communities and DWSD have expired. DWSD has been working with communities to create a long term contract that would be acceptable to all parties. In 2003, the City began negotiations (which are on going) with DWSD for a new water contract. During the negotiations with DWSD and through examination of other communities' methods to reduce their water rates, it became clear that reducing the City's peak demand would be the most effective way to reduce our wholesale water rate.

In 2007, the City learned that DWSD would be increasing our wholesale water rate by approximately 24%. This is one of the largest increases the City has received from DWSD; with the average increase over the last ten years of approximately 6% per year.

The City's average daily use is 6.4 million gallons, maximum daily use is 2.5 times the average daily use and *peak demand is 4.7 times the average daily use*. The new Water Contract being offered by DWSD provides an exemption from peak hour water usage between the hours of 11 PM and 5 AM Eastern Standard Time. By shifting lawn irrigation usage to the exempt period the City would reduce peak demand (DWSD refers to this as Demand Management) and provides an opportunity to lower our wholesale water rate.

In 2007, the City began a water conservation campaign to inform residents of ways to reduce their individual water bills by conserving water through simple practices. We published a Frequently Asked Questions (FAQ's) brochure with water conservation techniques, met with our top 20 water users to seek their assistance in establishing prudent water practices and attended Homeowner's Association Meetings to spread the word. While these efforts have been helpful, we need our message to be better heard with a more aggressive public education campaign in order to see measurable differences in our peak demand. DWSD requires an aggressive public education program to be a part of a new water contract with a reduced rate, a mandatory odd/even Lawn Watering Ordinance with a requirement to operate underground irrigation systems during the exclusionary period, and an internal irrigation policy for municipal property.

Communication of the message "shifting our peak demand to the exclusionary time frame" will be done in a variety of ways through print, broadcast and internet on both a broad and individual customer level. The City Calendar includes a clock on each of the watering months which shows the best time to water your lawn, our Engage publication will include two "H2O,

in the Know”, articles explaining the affects of lawn watering on our wholesale water rates, a Newsletter will be included with water bills prior to the lawn watering season further communicating this message. The City will include informational messages on the local cable station and the City’s website. On a more individual level, City staff will continue to meet with the top 20 water users, Homeowners Associations, the Public Schools, and the Chamber of Commerce continuing to communicate prudent water practices.

While the most cost effective way for an individual to reduce their water bill is by using less water, the City will continue to seek ways to reduce the costs associated with providing quality water through Demand Management practices. By working together as a Community, Novi can make simple changes in water usage that will impact the water rate charged by DWSD which is passed on to Novi’s customers.