

# CITY of NOVI CITY COUNCIL

**Agenda Item P**  
**April 6, 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., and to amend amount of fines for violation of Subsection (a). **Second Reading**

**SUBMITTING DEPARTMENT:** Finance/Water & Sewer

**CITY MANAGER APPROVAL:** 

**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., and to amend amount of fines for violation of Subsection (a). **Second Reading**

<b>Mayor Landry</b>				
<b>Mayor Pro Tem Gatt</b>				
<b>Council Member Burke</b>				
<b>Council Member Crawford</b>				

<b>Council Member Margolis</b>				
<b>Council Member Mutch</b>				
<b>Council Member Staudt</b>				



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## Water Wisely: The Best Time to Water Your Lawn

Keep that grass green by using your sprinklers at the proper time.

By Patrick St. John

If you were to ask several people how often you should water your lawn, and for how long, you're bound to get many different answers. Chances are one will be right on the money. But which one? There are many theories on proper watering. Some people do it every day, others once a week, or even "whenever I get around to it." How do the experts feel? Here's the scoop, according to those in the know.

First of all, you should forget daily watering for a couple of reasons. It simply isn't necessary, and with many restrictions in place lately regarding "odd and even day" watering, it's not allowed. Besides, that method isn't exactly fair, since those with odd-numbered addresses get two straight days of watering when a month contains 31 days. But there's no need to be concerned. Your lawn doesn't need that much water anyway.

Most experts agree that your lawn needs about an inch of water a week, be it from rain or your sprinkler. That can be accomplished with one good, thorough soaking instead of daily watering for a few minutes at a time. It's fairly easy to determine how long your sprinkler needs to run to provide an inch. Next time you water, place a couple of coffee cans or other containers in the path of the sprinkler. Note how long it takes to get one inch of water in the containers.

The best time of day to water is during the early morning hours – around 3:00 – when the water pressure is highest. In addition, water will have a chance to soak down into the ground before evaporating, thus providing the most benefit for the lawn. And any water left on the lawn will be evaporated away in a timely manner when daylight arrives.

Mid-afternoon watering is probably the worst time to water, as far as efficient water use is concerned. Too much will evaporate away before it has a chance to soak down. You'll be using a lot of water, but won't be doing your lawn all that much good. Even though it may be very tempting to turn on the sprinkler during one of those scorching days, hold off on it.

Evening watering will permit the water to soak down just fine, but water will remain on the lawn way too long, which can invite fungus and diseases.

If you don't have an in-ground sprinkler system, you're not about to get out of bed in the wee hours of the morning to water. I don't blame you, because I won't do that either. In that case, put the water out as early as you can, before the sun starts heating things up. But, with getting ready for work, that's not always the best solution either. So early evening is the next best time. Water may linger on the lawn for a while, but the soaking the grass gets is far better than doing nothing.

Some people will get the hose every so often and walk around the lawn spraying water everywhere. Other than the health benefits of walking, little else is getting accomplished. A few minutes of watering with the hose here and there isn't going to provide anywhere near an inch.

In-ground systems can be easily set for time and duration, so if you're fortunate enough to have one, so much the better. Check your sprinklers often, though, to make sure they're properly aligned. When an improperly-adjusted sprinkler springs into action in the middle of the night, anything can happen.

When setting hoses and sprinklers out, make sure you take any wind into consideration. The ideal spot for your sprinkler a few days ago may not be so ideal when it's windy. A sudden gust can put open windows, sidewalks, streets and parked cars into the sprinkler's new, unintended path.

Proper watering techniques will not only help your lawn, they'll allow you to easily comply with many watering restrictions put in place. And wise water use is something everyone can benefit from.

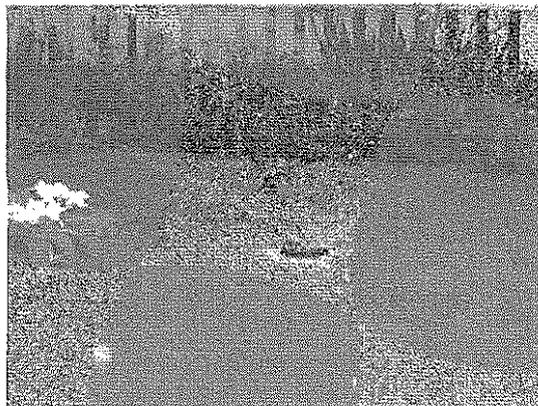
### Takeaways

- ☒ It is not necessary to water lawns every day
- ☒ Early morning watering is the best time; mid-afternoon is the worst
- ☒ Most lawns require one inch of water per week

home

## Watering Lawns Efficiently

by Chuck Manin, Dow Gardens Horticulturist



The other day I dared to voyage into a territory that no father should. I entered my son's bedroom. At least I think it was a bedroom, even though I couldn't see any bed with all the junk piled up on the floor and furniture. I explained to him that he needed to take more pride in his room and keep it clean. He didn't believe that pride had anything to do with keeping his room clean and neat. I explained that taking care of our belongings is a demonstration of pride in our society.

But taking care of our belongings is why having a lush, green lawn is a major symbol of enormous pride for homeowners. We Americans become overly critical of our neighbors if their lawn isn't perfectly manicured all year long. It is a fact that no one can actually have any pride if they have dandelions growing in their lawn.

I blame Thomas Jefferson for America's great obsession with the lush, green lawn. As far as I can tell Jefferson was the first American to put a lawn in the US at his Monticello Estate. This obsession has caused people to buy "vacation properties", and tear out the wildflowers and beautiful woods so that they can show the homeowner pride by putting in a lawn and mowing all weekend. I believe it would be more of a defeat if the mower stayed home.

Since we are obsessed with our lawns we need know how to irrigate properly to have a stunning lawn. Water is essential to all living organisms. Too much water can cause drowning and too little can cause dehydration. Water makes up 70% to 80% of the weight of lawn grasses. Chippings are 90% water.

Most people actually over water their lawns. Over watering creates problems for your lawn such as encouraging diseases. Many of the fungal diseases require a period of moisture to germinate. The longer the lawn is moist the more disease problems are likely to occur.

Watering in the morning will promote quicker drying of the grass blades than watering in the evening. The less time the blades are wet, the fewer the disease problems. It is usually cooler and less windy in the morning. During this time more water will make it to the turf roots and not evaporate or blow over to the neighbors. We don't want to help out the neighbors since our goal is to show the neighbors we have more pride.

Demonstrating true pride in your lawn means taking time to look at it. This is the best way to know if your lawn needs water. Grass will turn a blue gray and wilt when it starts to dehydrate. Grass that is in need of water will leave footprints longer than usual when you walk across it.

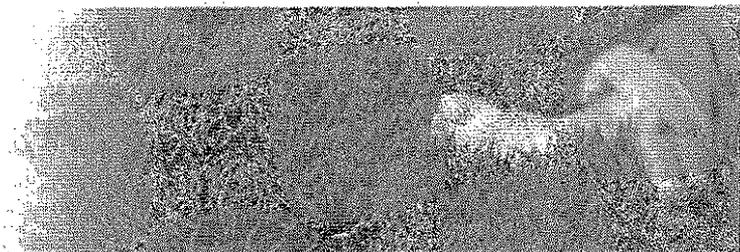
By going out and checking your lawn you are showing much more pride than setting a clock on an automatic irrigation system. How many of you have seen an automatic irrigation system running during a rainstorm. I guess the water they are pumping out is better for the grass than what is coming from the rain.

When you water, water deeply to encourage deeper roots. It is believed that shallow watering encourages the germination of weed seeds that are near the soil surface. Shallow watering also creates shallow root systems that are susceptible to drought. After you water, it isn't a bad idea to go out and dig a hole and see how deep you are watering.

Make sure that your sprinklers are hitting the lawn. Remember pavement is a non-living organism and does not need to be watered. Watering the driveway is money down the drain. Water that runs off the lawn onto the driveway is also taking nutrients away from your lawn.

The last thing I want to say is people who truly have pride in their lawn never cause soil compaction. This means that after you irrigate or after a rain do not drive on the lawn or mow the lawn. Soil is very sensitive to compaction when it is wet and you need to stay off the lawn. Many of our lawn problems occur because of soil compaction.

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- ORGANICS PLUS PROGRAMS
- IPM PROGRAMS
- TREE & SHRUB CARE PROGRAMS
- ORGANIC WEED CONTROL
- ORGANIC INSECT CONTROL
- ORGANIC DISEASE MANAGEMENT
- ORGANICS PLUS TOP-DRESSING
- KELP BIO-STIMULANTS
- BENEFICIAL NEMATODES
- SOIL AERATION
- SLIT SEEDING
- DETHATCHING
- WEED CONTROL
- DISEASE CONTROL
- INSECT CONTROL
- TREE & SHRUB CARE
- LANDSCAPE MAINTENANCE
- COMMERCIAL SERVICES

## ORGANIC DISEASE MANAGEMENT

### What is Turfgrass Disease? What Causes it?

Lawn diseases are generally caused by **pathogenic fungi** that occur naturally in the thatch and soil. There are a wide variety of fungi living in the soil and thatch of a lawn, but only a small number cause disease symptoms in turfgrass. The vast majority of fungi are beneficial, and contribute to the biodegradation of dead plant material as well as the breakdown on complex organic compounds into useable nutrients that the plants can absorb.

### What Does Lawn Disease Look Like?

Symptoms of disease in a lawn can appear in a number of ways, depending on the fungi that is causing the disease. You might see brown circular spots, dead rings, irregular patches, red or white mycellum growing on the grass blades or the roots may appear black & rotten. If you suspect that your lawn has a disease, **contact your local Nutri-Lawn immediately and we'll schedule a free service call.**

To Identify a Disease  
Click Here 

To learn more about turfgrass disease [click here.](#)

### What Can Be Done to Correct a Disease Problem?

**Make sure the lawn is being properly watered.** Overwatering creates an environment that is perfect for fungal diseases to spread. Make sure the surface of the lawn is allowed to dry out between waterings, as this will kill or inhibit the disease.

**Water in the early morning.** Watering in the afternoon results in a significant amount of the watering being lost to evaporation, and this leads to shallow watering and shallow root development and ultimately poor drought tolerance. Watering in the evening results in the lawn staying wet for the entire night before the sun can dry off the lawn the following day. This wet environment is conducive to disease development. To learn more about proper watering [click here.](#)

**Sharpen Your Mower Blade** A dull mower blade shreds the leaf blades rather than cuts them. The shredded blade does not heal over well and is easily infected by some disease organisms. The shredded blades also brown off and make your lawn look brown and unhealthy. To learn more about mower maintenance [click here.](#)

**Mow at the Proper Height and Frequency** Avoid cutting to low as this will stress out the lawn and make it more susceptible to disease. Also, mow frequently enough so that only one third of the leaf blade is removed at each mowing. If you wait to long between mowings, and then cut low, the lawn will go into a state of shock and this added stress makes the lawn more disease susceptible. To learn more about mowing [click here.](#)

**Aerate the Soil Annually** Aeration reduces soil compaction and allows water and nutrients to move deeper into the soil and encourages deeper roots. This results in a healthier lawn better able to resist disease. The soil

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cores that are removed from the lawn breakdown and filter into the thatch layer and modify the thatch and introduce beneficial microbes that compete with disease causing organisms.  
To learn more about the benefits of aeration [click here](#).

**Ensure a Balanced Diet of Fertilizer**

Too much fertilizer can create succulent leaves that are more susceptible to disease. Too little fertilizer can create a weak unhealthy lawn. Our programs modify the type and quantity of fertilizers applied throughout the season to ensure a balanced diet.

Overseed or slitseed with new, disease resistant cultivars of turfgrass. If your lawn suffers from a reoccurring disease problem then we strongly recommend that you overseed or slitseed with some new lawn seed that is resistant to the problem disease.

To learn more about lawn seeding [click here](#).

To find out what programs are offered in your area,  
**Contact your Local Nutri-Lawn Office.**

**Or Request a Free  
Estimate & Analysis On-Line**

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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 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 ~~utilize water from the City of Novi Water Supply System and~~ 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 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.

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, "GENERALLY," SECTION 34-24, "ALTERNATE DAY LAWN WATERING; WATER SUPPLY EMERGENCIES," IN ORDER TO INCLUDE A REQUIREMENT TO OPERATE UNDERGROUND IRRIGATION SYSTEMS DURING NON-PEAK HOURS OF 11:00 PM AND 5:00 AM AND TO AMEND AMOUNT OF FINES FOR VIOLATION OF SUBSECTION (a).

THE CITY OF NOVI ORDAINS:

**PART I**

That Chapter 34, "Utilities," Article II, "Water Supply System," Division 1, "Generally," Section 34-24, "Alternate day lawn watering; water supply emergencies," is hereby amended to read as follows:

**ARTICLE II. WATER SUPPLY SYSTEM**

**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 utilize water from the City of Novi Water Supply System and 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. 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 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.

## **PART II**

**Savings Clause.** That the amendment of the Novi Code of Ordinances set forth in this ordinance does not affect or impair any act done, offense committed, or right accruing, accrued, or acquired or liability, penalty, forfeiture or punishment, pending or incurred prior to the amendment of the Novi Code of Ordinances set forth in this ordinance.

## **PART III**

**Severability.** That should any section, subdivision, clause, or phrase of this ordinance be declared by the courts to be invalid, the validity of the ordinance as a whole, or in part, shall not be affected other than the part invalidated.

**PART IV**

**Repealer.** All other ordinances or parts of ordinances in conflict herewith are hereby repealed only to the extent necessary to give this ordinance full force and effect.

**PART V**

**Effective Date: Publication.** The provisions of this ordinance shall become effective fifteen (15) days after its adoption and shall be published within 15 days of its adoption by publication of a brief notice in a newspaper circulated in the City, stating the date of enactment and the effective date of the ordinance, a brief statement as to the subject matter of this ordinance and such other facts as the Clerk shall deem pertinent, and that a copy of the ordinance is available for public use and inspection at the office of the City Clerk.

Made, passed and adopted by the Novi City Council this    day of    , 2009.

\_\_\_\_\_  
David B. Landry, Mayor

\_\_\_\_\_  
Maryanne Cornelius, City Clerk

Adopted:  
Published:  
Effective:

**CERTIFICATION**

I hereby certify that the foregoing is a true and complete copy of the ordinance adopted at the regular meeting of the Novi City Council held on the    day of    , 2009.

\_\_\_\_\_  
Maryanne Cornelius, City Clerk