Caring for your lawn during a drought

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For most of my life, watering the lawn or garden has involved the time-honored tradition of shuffling outside and grabbing a hose and sprinkler. This is typically followed by an altogether too long bout of attempting to untangle the hose, which in turn often results in a mildly furious spat of wrestling with the hose, and either ends with the hose learning its lesson and straightening out – or there ends up being a kink that I refuse to walk back up the line and (completely) undo, because then the hose wins. A couple years back we were lucky enough to buy a house in town that just happens to have an irrigation system. While I’d certainly heard and read about the advantages in water conservation and efficiency that an irrigation system provides in my time at OPU, I have to admit I was most thankful that I wouldn’t have to continue my battles with the hose.

Typically, a home irrigation system is controlled from an irrigation panel. Sometimes that panel is in the house, sometimes it’s mounted on the outside of the house. Ours was on the wall in the garage and was a somewhat older model panel. All its configuration was done via a large dial, a couple of buttons, and a tiny LCD screen that I often struggled to read. It had enough functionality to setup regular schedules for watering the lawn, but that’s about it. If I wanted to manually turn on a certain specific set of sprinklers in just one area of the yard (a “zone”), I had to refer to a crude hand-drawn map I had made of our yard, with little numbered labels, so I knew which of our 12 zones was which.

While the irrigation panel in our home was getting the job done, I felt like it was too limited, and often more than a little frustrating to work with. I was also quite certain it wasn’t watering our lawn as efficiently as it could. Parts of the yard would be healthy and thriving – and were perhaps getting more water than they needed - while others struggled during long hot and sunny stretches of the year, so perhaps those areas needed a little more? The panel was doing everything it was capable of, but it was always going to be limited by a set number of watering schedules, with fixed durations of watering. While it did have an automatic rain detection system as well, where a sensor would measure whether it was raining – and wouldn’t run on those days – I still had many questions, and a lot of doubts as to its efficiency. I also had a wish list of features it didn’t have. It was time to look at an upgrade to the irrigation control panel.

When I first started investigating what it would take to replace the irrigation panel - at first - I was a little daunted. Removing the cover on the controller panel was the first step to getting a feel for what I’d be dealing with here, and it revealed a tangled kaleidoscope of almost 20 wires. I wondered if I would need to call a professional. Fortunately, I am blessed with an overabundance of “Pffft! How hard could it be?” – though my wife will happily inform anyone (with almost no prompting), that this attribute is less of a blessing and more of a curse. I have no idea what she’s talking about. But a quick bit of internet research, and a couple of YouTube videos later, and I felt pretty confident that her groan of dismay (usually accompanied by a stare and a slow headshake) when I told her I was going to replace the irrigation panel was unwarranted. How hard could it be?

After doing some research on the web for the ideal smart watering panel, I had my new panel in hand a few days later. Careful review of the instructions and a couple re-viewings of YouTube videos walking through the installation of my specific model of control panel, and I was off to the races.

Naturally, the first thing I did was to unplug the power for the old unit. That was actually one of the first things I’d worried about when I started looking into replacing the panel: Would I need to call an electrician to disconnect or connect power to the panel? I was happy to learn early in my research, that you typically don’t with most indoor panels – though an outdoor panel is often (or at least it should be) hardwired. Most indoor irrigation control system panels simply plug into the wall, though you do need to plug in the bare wires from that power adapter into your new panel – though that would come last.

I’d gotten a good tip from the web when it came to unplugging the wires from the old panel: Label them first. Very important. A roll of masking tape and a pen did the trick with the labeling. Most of the labeling I would need was to indicate which wire was going to which of my twelve watering zones, though you technically don’t have to do this if you don’t care if you end up with your zones getting new numbers. There were also a few wires that controlled the valves and the water sensors, so I labeled them as well. I carefully detached and pulled each wire out of the panel, labeling as I went, and before long I was ready to simply unscrew the old controller from the wall and mount the new one. The new panel made reattaching the wires a breeze. It was just a matter of depressing a little tab for each receptacle with a small screwdriver, sliding in the wire, and releas-
ing the tab. After the wires were all in, and after a quick review of the instructions and a quick search on the web with my phone to ensure that I’d plugged the valve common wires in right; and I was done. The whole process took less than an hour.

My new controller panel was equipped with Wi-Fi which could be controlled with an app on my phone from anywhere (as long as I had internet access). But the panel – much like most hardware of this nature that’s capable of connecting to Wi-Fi – doesn’t have a screen or buttons to let you search for your Wi-Fi network, put in Wi-Fi a password, etc. I needed to use Bluetooth to connect my phone to the panel, so I had some way of telling it these things. The process involved downloading the app for my panel onto my phone, connecting to the panel via Bluetooth on my phone once the app was installed (which the app did with ease), and once that Bluetooth connection with the panel was running, the app walked me through connecting the panel to my home Wi-Fi. Once the panel was connected to my home Wi-Fi, we were in business! The app for my brand of panel then started walking me through how to setup all my zones and smart watering features.

Most newer smart watering irrigation controllers have many of the same features mine does, though they vary a bit. Mine walked me through briefly turning on each zone, letting me take a picture of the area of my lawn that zone was for (which might be my favorite feature – no more hand drawn maps or trying to remember which zone is where), what type of soil that zone has, what types of plants were in that zone, how much sunlight that zone receives, what types of sprinklers are in that zone, the number of sprinklers in that zone, your best guess on how much rainfall that zone gets, how much the ground slopes in that zone, and it even let you plant watering catch cups in that zone – have it run for a few minutes – and you could tell it how much water your sprinklers in that zone were putting out. It was pretty impressive! Again – it was maybe another half an hour of slowly walking around the yard, phone in hand, with the app would turning on the sprinklers in a given zone for a few minutes so I knew which one we were at, and then I’d plug in the answers to all those details about each zone. The app would patiently wait for me to finish with my answers, and then we’d move onto the next zone when I was ready.

It was a relatively small investment for some amazing water conservation and convenience features. The new controller is taking the information I gave it about each zone and watering my lawn and gardens at the optimal levels. It typically waters a given zone twice – which is the optimal method for achieving the right moisture level in the soil – but it does it for less time. Sometimes it waters a zone for a few minutes, sometimes a bit longer. It’s not only estimating what the ideal moisture levels are for my yard, it’s also connected to the internet via Wi-Fi so that it can keep an eye out for whether it rains, but it’ll also factor in how much rain we got and adjust its watering schedules accordingly. With the system’s app, I can turn on a zone with the touch of a digital button, check schedules for when its smart watering algorithm is going to water next, check past watering dates and times, see how much moisture level it estimates each of my zones are currently at, and on and on. If I want to setup some schedules of my own, like the old system; I can do that too. I don’t know why I didn’t get one of these smarter watering systems much sooner!

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**ENGAGE OWATONNA**

**LET’S TALK!**

Check out engageowatonna.com. It is a community space where you can contribute your ideas and feedback on various projects, programs and topics that affect you and your neighbors. The goal is to empower you, Owatonna residents, to be more active in shaping the community and future. You will be listened to, your opinions will be taken into account and you will receive reports back on how community input contributes to community projects.
Proper lawncare during drought conditions is important for both lawns and water utilities.

Lawns in Minnesota consist of grasses known as cool-season turf. Cool-season turf naturally goes through two dormant periods during the year: first is the winter dormancy while the second is considered the summer decline. The summer decline is especially notable during drought conditions. Although it is easy to think brown grass is dead grass, that is not necessarily the case. A healthy yard that goes brown and dormant during the summer is still healthy and will stay healthy if it is properly taken care of to reduce additional stress.

Healthy lawns come from healthy root zones. Healthy root zones are deeper, more water efficient, and better drought and stress resistant than shallow root zones. Having a lush green yard does not necessarily mean the root zone is healthy, in fact a browning lawn may have a healthier root zone than a green lawn if properly cared for. The first step in a healthier root zone is responsible watering during dry conditions. The EPA estimates that roughly 50% of water used for irrigation is wasted water, mainly through excessive runoff, evaporation, and inefficient water use by grass.

Lawns need approximately 1” of water per week to get moisture deep into the ground. Ideally, this would be rainfall slow enough to fully saturate the ground, but that doesn’t always happen. If you do decide to water your yard, it’s important the ground gets saturated to between 4 and 6 inches deep. This deep saturation will promote deeper, healthier root zone growth. Shallow frequent watering reduces the deep roots and promotes only shallow root growth. These shallow roots are extremely susceptible to stress and drought damage, won’t handle dormant periods as well, and will require much more frequent watering. Watering at the right time of day is another step in responsible irrigation. Sprinklers should run as early in the morning as possible (between 4am and 8am is prime), before the heat of the day starts. Watering during the mid-day wastes more water than the morning through evaporation, while watering at night can cause damaging fungal growth.

Proper timing of lawn chemicals, fertilizer and weed killer, is also a factor in proper lawncare. Fertilizer and weed killer should be applied in the spring and/or fall growth season instead of the summer decline. Although many weed killers are designed for broad leaf plants and don’t normally kill grass, they still put stress on the grass that can kill the lawn if it’s already in a dormant or stressed condition. Fertilizing during the summer decline can also burn off the grass because the root zone isn’t growing as rapidly at the time.

Lastly, some changes to mowing can improve lawn health and allow it to handle stress and drought more easily. During drought conditions, raising the mower deck to 3”-4” allow the grass to better shade the ground keeping it cooler as well as reducing moisture evaporation. Reducing the frequency of mowing also benefits the lawn. The blades of grass don’t heal as quickly during summer decline and drought as they do in the spring and fall. Less frequent mowing gives the lawn more time to heal. Another way to avoid stress from mowing is to make sure your mower blades are sharp. Dull blades rip and tear the grass blades and cause the lawn to use 40%-60% more water than a yard mowed with a sharp blade.

High water use for irrigation can stress water utilities equipment and cause expensive equipment failure if it’s overworked. Responsible lawncare, especially during droughts, can reduce or eliminate how much water is used for irrigation. It’s OK to have a healthy, browning lawn during the summer decline, it’ll come back just as green in the fall.
As you have probably noticed, the City of Owatonna is busy working on several construction projects this year. The following is a recap of the major projects:

• The Bridge Street Project from Interstate 35 to 24th Avenue has been in progress since May 3rd. Phase 1 (I-35 ramps to beyond Park Dr.) is nearing completion with concrete pavement soon to begin. The project is estimated to be substantially completed by October 30, 2021. Project information, traffic pattern maps and weekly updates can be found on the 2021 Bridge Street Project webpage: http://ci.owatonna.mn.us/728/2021-Bridge-Street-Project

• Truman Avenue, from Main Street to Havana Road, has been under construction since April 19th. The project involves replacing the sanitary sewer, storm sewer, water main, roadway, and the installation of sidewalk along the east side. Work is progressing from Main Street moving south. Sewer construction is currently underway between School Street & Prospect Street. Weekly updates for the 2021 Truman Avenue Project are available on the project website: http://ci.owatonna.mn.us/727/2021-Truman-Avenue-Project.

• The City of Owatonna Downtown Streetscape Study was approved by the Owatonna City Council in November 2019 as part of a larger Master Planning effort. ISG has been engaged to assist with this project, considered as Phase One of the Master plan, which consists of North Cedar Avenue Streetscape improvements focused on the three blocks between Central Park and Rose Street. Construction began on June 21, 2021. Phase 1 is anticipated to be completed on November 18, 2021. Construction newsletters, detour maps, and project information is available on ISG’s Streetscape Project Website: https://gis.isginc.com/Mn/Owatonna/northCedaraveStreetscapeProject/

• 13 Street Sections, in four neighborhoods, are planned for overlay during the 2021 construction season. The Street Department plans to overlay these streets starting July 26th.

• The CIPPS (Cured In Place Pipe System) Project for 2021 involved lining 11,420 feet of clay sanitary sewer lines to improve carrying capacity and reduce inflow. The project was completed in April.

• The Street Maintenance Project for 2021 involved crack sealing and seal coating of 4.99 miles of streets within the City of Owatonna. The project was completed in June.

• Construction of a roundabout at the intersection of County Road 45 (State Avenue) and County Road 34 (26th Street) is planned for the Summer – Fall of 2021. More information on this project is available on the Steele County Website: https://www.co.steele.mn.us/divisions/public_works/transportation/csa4_34_at_csa4_45_roundabout.php.

• The 2021 Storm Sewer Project will begin in August or September. This project includes the replacement of storm sewer under Maple Avenue NE from Rose St to Pearl St E, and Condor Pl NE into 22nd Street NE. This work should be completed by early November.

• Miscellaneous catch basin and pothole repair is ongoing. Please contact the Public Works Office to report a concern regarding city streets.

Updates from the City Engineer’s Office are posted to the City of Owatonna Public Works Website every Friday: http://www.ci.owatonna.mn.us/Blog.aspx?CID=2

Please stay safe in work zones, your safety and the safety of the workers depends on you. Slow down and be attentive. Thank you for your patience as projects are underway.
Take Action for Water Quality in Our Community!

Visit the Clean River Partners and City of Owatonna Fair Booth
Take the opportunity to learn a little bit about what CRP and the City have been working on as well as the opportunity to be comment and review the City of Owatonna’s Stormwater Pollution Prevention Plan as part of the communities MS4 Program. The Stormwater Pollution Prevention Plan document will be available at the booth for you review! You may also review and comment by filling out a survey on the City’s website at http://ci.owatonna.mn.us/stormwater. Your input is greatly valued! Steele County Fair dates: August 17th – 22nd, 2021.

Save the Date - 13th Annual Watershed Wide Clean-up on 9/18/2021
For over a decade, volunteers have combed the stream banks and waterways around Owatonna with the goal of cleaning trash and debris from the Straight River. With every passing year, more and more garbage is removed by hard working individuals and businesses who are dedicated to making a difference. Since 2009, residents of Owatonna and the surrounding cannon river watershed have volunteered cleaning up local lakes, creeks, the Cannon and Straight River.

The 13th Annual Watershed Wide Clean-up will take place in Owatonna on September 18th from 9am to 12 noon at Morehouse Park. The event is hosted by the Clean River Partners, who helps to find sponsors and coordinate the clean-up event.

Get Involved! If you are interested in helping or sponsoring the event, visit www.cleanriverpartners.org. Please come and join us to ensure our waters stay clean, safe and healthy!

Learn more about the Stormwater Program by contacting Bradley D. Rademacher, Water Quality/ Stormwater Specialist at (507)-774-7300 or Bradley.rademacher@ci.owatonna.mn.us
Mother Nature Approved!

WaterSense® Weather-Based Irrigation Controllers

Weather-based irrigation controllers automatically adjust the watering schedule based on local weather conditions. Replacing a standard clock timer with a WaterSense® weather-based irrigation controller can save an average home nearly 8,800 gallons of water annually from not overwatering lawns and landscapes! To encourage our customers to conserve this precious resource, Owatonna Public Utilities is offering a 50% of cost rebate, up to $75 per controller.

Visit www.owatonnautilities.com to learn more and download rebate applications with complete terms and conditions.
OFFICE HOURS:
Monday-Wednesday:
8:00 a.m. - 5:00 p.m.
Thursday:
8:00 a.m. - 6:00 p.m.
Friday:
8:00 a.m. - 4:00 p.m.
Saturday & Sunday:
Closed

Payment Options
• Online at www.owatonnautilities.smarthub.coop
• Phone at (507) 451-2480 Option 2 or 1-888-228-2398 (Available 24/7)
• Automatic Withdrawal; bank account or credit card
• Drive-up drop box located in our parking lot
• Drop box locations at CashWise and HyVee Food Store
• Mail to P.O. Box 800, Owatonna, MN 55060
• ACH bank draft sent directly from your bank

Moving?
Remember to contact the Customer Service Department ONE WEEK prior to moving, 451-2480.

Did you know? Concrete won’t grow.
WATER SMART!
Aim for the grass and conserve this precious resource.

Visit our website at www.owatonnautilities.com for more conservation tips!

Gas Leak?
If you smell gas and can’t find the source immediately, go to a neighbor’s house and call OPU at 451-2480 option 1.

Don’t turn electrical switches on or off or use a flashlight or cell phone in the home, because an electrical spark could ignite the gas and cause an explosion.