Looking for an easy solution to save water and improve your landscape this spring? Consider installing a smart irrigation controller. Smart irrigation controllers use environmental information such as weather or soil moisture to adjust run time and frequency of irrigation.

Smart controllers help prevent over-watering of the landscape, which wastes water. This may also lower water related expenses on homeowner’s utility bills. Installing a smart controller can make your landscaping look beautiful while making it convenient and easy to irrigate. There are many types of smart irrigation controllers. Each type of device uses different environmental information to adjust the watering schedule.

Weather based controllers, also referred to as climate-based controllers or smart controllers, use satellite information to determine when and how much to water. These controllers prevent unnecessary watering. These controllers calculate evapotranspiration (ET) ET is the combination of evaporation and plant transpiration. Using sensors, the controller measures the amount of water that evaporates from the soil’s surface or that used by the plants. This may also lower water related expenses on homeowner’s utility bills. Installing a smart controller can make your landscaping look beautiful while making it convenient and easy to irrigate. There are many types of smart irrigation controllers. Each type of device uses different environmental information to adjust the watering schedule.

Most types of irrigation controllers can be retrofitted into a new or existing irrigation system. To get more information about smart irrigation controllers visit your local hardware store and start saving water and money on your monthly utility bill.

Not if, but when: Destructive beetle destined for City

Walking along 30th Street in Boulder on a sultry day last August, a tour group of city employees from the Natural Resources Department took their visitors what was in store for them. "This is a very slow-moving natural disaster," said Whitney Cranmer, a Colorado State University entomologist who visited the city at the request of the city's authorities on the emerald ash borer. "Within our generation, nearly all varieties of ash trees in North America will be gone."

The beetle (see page 2), an immigrant from northern China, is now widely known – is an invasive species. It has spread steadily taking it southeast toward Denver and Greeley in its inevitable path. Experts have predicted that Northern Colorado, including Boulder, is "next in line," which has led the city to take preventative measures. Boulder Parks Department Forester Kathleen Alexander conducted the tour and chose 30th Street to show her audience what to expect for the summer of 2017. "Two summers ago, these all had bark," she said, eyeing a row of ash trees. "This year, there's no bark, and you can see the wood."

The beetle larvae, which feed on ash trees' bark, are distributed in a strip separating street and sidewalk. Spraying limbs and branches that should have provided a shady canopy near the Williams Village dormitory complex southeast of Colorado State University’s campus were instead losing their bark. The emerald ash borer, a tiny metallic-green beetle that first hatched in Boulder three years earlier, has spread throughout the Front Range and is now moving eastward. The larvae feed on the beetle's host plants, which die and fall to the ground, leaving behind the larvae and their empty shells. The larvae will eventually become pupae and then emerge as beetles.

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Two or more of these symptoms could indicate an EAB infestation:

- D-shaped exit holes about 1/8 of an inch in diameter.
- Serpentine galleries: Larvae leave the bark, wound tissues, and outer sections of a tree can indicate infestation.
- Canopy dieback: Canopy diminishes and branches die.
- Infestation is common to other Ash species.
- Fully mature adult insects that emerge from behind the bark of a tree leave distinctive D-shaped holes behind. The holes measure about 1/8 of an inch in diameter.
- Increased woodpecker activity: Large numbers of EAB borers can attract woodpeckers who tend to feed high in the tree where the insect's life cycle takes place.
- The additional damage inflicted by the woodpecker can leave a tree that much more vulnerable to infestation.

Confirm it's an Ash

Ash trees are distinctive in the following symptoms when trying to identify an EAB infestation:

- Leaves drop three years early,
- Lower, with fewer ash trees in its neighborhood in southeast Boulder.
- Canopy loss would be 46 percent.
- Experience in other communities shows that you should plan with the knowledge you have.
- You have the time to plan, EAB veterans say.
- Costs Loveland faces could be $500,000 annually for the following:
- A tour group is always ahead of where you think it is.
- So, just hasn't been found yet. EAB
- Check out our website at CityofLoveland.org/EAB.

EAB Questions, answers

The Colorado State Forest Service has provided the following answers to commonly asked questions that property owners might have:

- Where can I find my City of Loveland planting date?
- How do I identify an Ash tree?
- How do I find Ash trees on my property?
- What is a City of Loveland planting date?
- City Update is a monthly publication of the City of Loveland. Residents receive City Update according to their utility billing cycle.
- Timeliness: © 2017 City of Loveland. All Rights Reserved.
Hatching a plan

Given that the Emerald Ash Borer (EAB) is currently in its early stages of development, it is crucial to plan ahead to prevent its spread. By taking a proactive approach, we can protect our ash trees, which are vital to our ecosystem and economy. The City of Loveland has already implemented a comprehensive response plan to monitor and control the borer's movement. This plan includes regular inspections, tree assessments, and treatment choices to deal with the infestation. The city has also partnered with various organizations and property owners, and for a City Council meeting, the Public Works Department Director will discuss plans to control the EAB outbreak.

Lessons learned from other communities

Experience in other communities has shed light on the advantages and disadvantages of different treatment methods. By analyzing their strategies, we can learn from their successes and failures. For example, injection treatments, while effective, can be expensive, and long-term treatments may not always yield results. The City of Loveland has already compiled a list of less viable options to consider in the response plan. The council will consider the city’s initial steps in remediating EAB, and they will illustrate the benefits of waiting for the larvae to feed high in the tree before removing the trees.

Two or more of these symptoms could indicate an EAB infestation

- Sudden dieback of crown and branches
- dead and brown leaves
- Yellowing of leaves in early summer
- T/L-shaped exit holes
- Caterpillar-like larvae under the bark

Leaves and branches on the tree can provide important clues that help identify the borer. If leaves fall from the tree later in the summer, it may be a sign of an infestation. A tour group will illustrate the emerald ash borer’s devastation, guided by Boulder City Forester Kathleen Alexander.

The City of Loveland can help homeowners deal with the EAB by providing a comprehensive website with EAB Questions, answers, and treatment options. The website can be found at www.EABcolorado.com.

The Colorado State Forest Service has also provided comprehensive treatment plans and emergency response procedures that property owners can use to protect their ash trees. The city wants to encourage homeowners to consider removing the trees, especially if they are located in public areas.

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As EAB larvae feed on the wood of the tree, they leave a serpentine pattern behind, which widens as the larvae grow. The additional damage the larvae cause can attract woodpeckers who tend to feed high in the tree where the insects come to life and pupate. The additional damage inflicted by the woodpeckers can leave a tree that much more vulnerable to infestation.

**Serpentine galleries**

Leaves under the bark, wood decays, rots, and eventually falls on the ground. This leaves a tree that much more susceptible to disease and pests. The additional damage inflicted by the woodpeckers can leave a tree that much more vulnerable to infestation.

**EAB Questions, answers: The Colorado State Forest Service has provided comprehensive answers to frequently asked questions about EAB.**

- **www.EABcolorado.com**
- **CityofLoveland.org/EAB**
- **Colorado House of Representatives.**
- **Loveland Burial Park.**
- **Parks and Recreation**
- **City of Loveland will hold a special election April 11 to fill the Ward III vacancy created by the resignation of Althorpe [High McKinney election to the Colorado House of Representatives].**
- **April is Fair Housing Month**

Two or more of these symptoms could indicate an EAB infestation:

- Leaf blisters: Small, raised, white blisters on the underside of leaves.
- Small, D-shaped exit holes about 1/8 of an inch in diameter.
- Twigs, branches, or small pieces of wood, lying on the ground, that are infested with EAB larvae.
- **Increased woodpecker activity**

Large numbers of EAB larvae can attract woodpeckers, which will feed high in the tree where the insects come to life and pupate. The additional damage inflicted by the woodpeckers can leave a tree that much more vulnerable to infestation.

**Confirm It’s an Ash**

Locate a tree where the bark has begun to fail. The ash tree is the only tree that has this problem. Not being able to identify your ash tree may be, preparation and planning you should plan with the knowledge gained from Midwestern states.

Especially vulnerable to infestation are ash trees, which will decline in the coming years that Loveland will be facing the consequences of the ash tree’s death. The task list is a long one. For being committed to providing equal opportunity for citizens and does not discriminate on the basis of disability, race, color, national origin, age, sex, religion, or marital status. City Update is also available around the first of every month on the City’s website.
Looking at an easy solution to save water and related expenses on homeowners’ utility bills? Installing a smart controller can make your landscaping look beautiful while making it convenient and easy to irrigate. There are many types of smart irrigation controllers. Each type of device uses different environmental information to adjust the watering schedule.

Weather-based controllers, also referred to as climate-based controllers or smart controllers, use satellites to collect weather data from the soil’s surface or that used by the plants. This information about evapotranspiration helps calculate evapotranspiration (ET). ET is the combination of evaporation and plant transpiration. Using sensors, the controller can make necessary adjustments to prevent unnecessary watering. These controllers calculate evapotranspiration (ET) by combining data about the moisture level of the plant and soil type. If the ground is moist, the soil moisture controllers shut off the irrigation system to prevent over watering. If the system detects dry, it allows the sprinkler system to operate as programmed. Soil moisture sensors must be carefully installed in a representative area of the turf. Most types of irrigation controllers can be retrofitted using a weather sensor or weather data from the Internet. Some models detect current water levels using probes and others use an absorbent disk. When the device measures a certain threshold of water it triggers the irrigation system to turn off. If the device detects dry conditions it allows the irrigation system to operate normally.

Not if, but when: Destined for City

Walking along 30th Street in Boulder on a windy day last August, a tour group of city employees saw the first sign of emerald ash borers. It was behind two ash trees near the Williams Village dormitory at the University of Colorado Boulder, one of the nation’s most visible natural disasters,” said Whitney Cranshaw, a Colorado State University entomologist who is conducting the emerald ash borer. “Within our generation, nearly all varieties of ash trees in North America will be gone.”

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SMART IRRIGATION CONTROLLERS

Looking for an easy solution to save water and improve your landscape today! Consider installing a smart irrigation controller. Smart irrigation controllers use environmental information such as weather or soil moisture to adjust run time and frequency of irrigation. Smart controllers help prevent over-watering of the landscape, which wastes water.

Soil moisture-based controllers use a probe that is temporarily planted in the soil; the devices measure the amount of water that evaporates from the surface or that used by the plants. This information about evapotranspiration (ET) is used by the smart controller to prevent unnecessary watering. These controllers operate as programmed. Soil moisture sensors must be installed in a representative area of the turf. Rain sensors, also referred to as rain switches, can temporarily shut off irrigation systems when it’s raining.

Some models detect current water levels using probes and others use an attached disk. When the device measures a certain threshold of water it triggers the irrigation system to turn off. If the device measures dry conditions it allows the irrigation system to operate normally.

Most types of irrigation controllers can be retrofitted to a new or existing irrigation system. To get more information about smart irrigation controllers visit your local hardware store and start saving water and improving your landscape today!

What is smart irrigation?

Smart irrigation is systems and devices that monitor and control irrigation systems based on the user’s input. This input can be the amount of rainfall, amount of evaporation, amount of water drained by the plants, etc. These smart controllers adjust the irrigation schedule to meet the current need.

Soil moisture-based controllers use a probe that is inserted in the turf and measures moisture at the root. The system compares this data to the recommended moisture level of the plant and soil type. If the ground is moist, the soil moisture controllers shut off the irrigation system, preventing over-watering. If the ground is dry, it allows the sprinkler system to improve your landscape this spring? Consider installing a smart irrigation controller. Smart irrigation controllers use environmental information such as weather or soil moisture to adjust run time and frequency of irrigation. Smart controllers help prevent over-watering of the landscape, which wastes water.

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