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# “THE PUDDLE”

THE NORTH KINGSTOWN DEPARTMENT OF WATER SUPPLY NEWSLETTER

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March 2024

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## **Real World Solutions – Can North Kingstown Residents Truly Make a Difference? Sustainable Landscaping – Your Yard Matters!**

In an age of climate change, drought worries, and water quality concerns, can the everyday homeowner do anything that actually makes a real difference? The short answer to that question is yes, and those actions, those proven effective strategies, can be summed up in the catch-all phrase, “Sustainable Landscaping”. Sustainable landscaping takes the proven principles of Xeriscaping, the practice of water conservation through creative and appropriate landscaping developed by a water conservation task force in Denver Colorado, and combines them, through a holistic approach, with landscape concepts that are functional, cost efficient, visually pleasing, environmentally friendly, and maintainable across the long term. A sustainable landscape has the following characteristics:

- \* Minimizes or mitigates impervious (water-repelling) surfaces so as to preserve the natural hydrologic cycle and replenish groundwater.
- \* Incorporates water-absorbent features such as rain gardens, green roofs and bioswales to soak in and recharge the water table.
- \* Utilizes long-lived locally native or non-invasive plants as the central element of the landscape.
- \* Minimizes or eliminates fossil fuel inputs for construction and management.
- \* Minimizes or eliminates inputs of man-made chemical fertilizers
- \* Reduces or eliminates artificial irrigation through both selective tree-shading and natural mulching.
- \* Puts the right plant in the right place, by adapting the plant to the characteristics of the space versus the other way around.
- \* Promotes biodiversity and habitat for other organisms, diversity makes a more resilient habitat.
- \* A sustainable landscape is a net carbon sink when factoring in maintenance practices and actually sequesters carbon.
- \* Uses locally sourced materials for plants and hardscapes (stone, paving materials).
- \* Recycles or reuses materials when practical through composting and natural mulching.
- \* Modeled on local ecosystem processes and mimics the life and nutrient cycling found in stable natural areas.
- \* Integrates food production into the landscape.
- \* Builds soil structure, not degrades it.

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## **Sustainable Landscaping continued**

On average, the typical home or commercial built landscape has less than 15 or 20 species of plants in an average 1-acre lot or commercial space. The average undisturbed forested or former farm-meadow New England landscape contains upwards of 100 species in the same area. Native areas like these can contain 30 species in a square meter. Research has demonstrated that diverse plantings produce more biomass, store more carbon, and are more resistant to weeds and invasive species. These native environments do a better job of enabling groundwater recharge and are much more effective in filtering impurities from that recharge before it reaches our drinking water aquifers. So, in essence, sustainable landscaping is really a strategy that takes the best elements from the natural world within which we live and gently transforms those elements into the more orderly and ascetically pleasing landscape that most homeowners desire. All the while doing a better job of protecting not only our immediate environment, but also your critical drinking water aquifers and recharge areas; and that's not even taking into consideration the reality that your yard also becomes a safer and more welcoming place for your family, your pets, and wild creatures with which we share North Kingstown. The internet is full of good resources available to home and business owners who want to take these principles and begin to practice them on their property, the University of Rhode Island website is a great place to start. Additionally, look for a late spring event sponsored by the North Kingstown Water Department and the Groundwater Committee focusing on rain gardens. Good gardening North Kingstown!

## **Hydrant Flushing - Critical Maintenance or just a waste of water?**

Most of us have probably seen a Water Department vehicle parked along the side of a road in town, adjacent to a fire hydrant that is open and flowing; water spraying into the street and running quickly down a nearby storm drain. You might wonder what's going on here? This seems like an awful waste of water in an age when water shortages and water conservation are hot topics on news shows and in newspapers from California to Texas to Florida and New England alike. We understand and appreciate your concerns, it's refreshing to see folks here in North Kingstown and beyond really begin to grapple with the idea that water is indeed among our most precious resources. But, once you understand the reasoning behind an aggressive annual hydrant flushing program such as we utilize here at the North Kingstown Water Department, you will see that this is anything but wasteful. Annual hydrant flushing, you see, is all about eradicating troublesome sediment accumulation. Sediment, fine particles that settle out of the water over time and built up slowly in water mains, can become a home for bacteria and other biological entities that can adversely affect water quality. If enough sediment accumulates in a main, these "little critters" can essentially shield themselves from the effects of any disinfectant added to the water. In time, bacteria and its kin can accumulate and grow until they form a biofilm, in essence a colony of unwanted visitors that can directly cause bacterial contamination of our community's wonderfully pristine drinking water. A secondary, but equally valuable by-product of a well planned flushing program is the exercising and if necessary, subsequent repair of the more than 1000 fire hydrants in town that are a critical component of public safety and fire protection for all of us. So, as you can see, a well thought out flushing program, just like a smartly designed backflow prevention plan is all about protecting the health and welfare of you, our customers, friends, and neighbors.