# Help keep our rivers healthy year-round!



## WINTER

Besides limiting the amount of salt you use to melt ice, start thinking about adding native plants to your yard this spring. Plants native to Indiana have deeper roots than turfgrass, so they help absorb stormwater and filet out pollutants.



### SPRING

Along with adding native to your landscape, take care of the lawn you already have by keeping your grass about three inches tall.

Taller grass cools the soil, needs less water and shades out weed growth. It is also more insect and disease resistant!

### SUMMER

Conserve water by using only what your lawn needs. By watering late in the afternoon, water will reach roots

more easily and won't evaporate as quickly in the hot summer sun. Also make sure your sprinkler is watering your lawn—not your driveway or sidewalk!

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FALL

Rather than bagging all your leaves for disposal, try composting. Compost piles are easy to make, and you'll end up with rich, earthy fertilizer for your lawn and garden!

# Johnson County Partnership For Water Quality

Johnson County	317-346-4350
City of Franklin	317-346-1150
City of Greenwood	317-887-5230
Town of Bargersville	317-422-5115
Town of Whiteland	317-535-5531
Town of Edinburgh	812-526-3512
Town of New Whiteland	317-535-4664
Johnson County Solid Waste Management District	317-738-2546
Johnson County Soil & Water Conservation District	317-736-9540

# Johnson County Partnership For Water Quality





Winter brings with it lots of fun activities, like sledding, ice skating and skiing. But winter also means mounds of snow to shovel and layers of slippery ice to remove from our sidewalks and driveways. We often attempt to make the job easier by using various products like salt to melt the snow and ice. Besides sodium chloride, many deicers also contain chemicals like cyanide. When ice melts, the salts and chemicals dissolve and flow into street drains that lead directly to the river, endangering aquatic life. Look inside for a few tips to reduce salt use and prevent pollution year-round.



# Tips on how to reduce salt use and prevent pollution we add to our rivers year-round.

#### 1. Ask yourself the following:

- Does snow or ice need to be removed? If so, how much?
- What is the temperature of the surface I want to treat (surface temperature is lower than air temperature.)?
- Will the surface be exposed to the sun, or shaded by trees or buildings (hence, warming the surface)?
- What is the tempera6ture range when the deicing product is most effective?
- How much product is needed to be effective?

#### 2. Shovel early and often.

When it come to snow removal, there is no substitute for muscle and elbow grease! Deicers work best when only a thin layer of snow or ice must be melted. So head out and shovel and move as much snow as you can during the storm if possible. You can also use a hoe to scrape ice off the surface before putting down a deicer.

# Help prevent stormwater pollution this winter!

#### 3. Reduce your salt use.

An important step in deicing, physically remove as much snow and ice as possible before applying salt. Break up ice before adding another layer of salt. Too much will harm your lawn, plants and end up in the rivers. Limit access to your home to one entrance during major snow events.

#### 4. Avoid Fertilizers and products with Urea.

Some people recommend the use fertilizer including those with urea (carbamide, ammonium, carbonyl diamide, etc) because the don't contain chlorides and contain nutrients (urea is a form of nitrogen) that can help plant growth when the ice and snow melts. Urea-based products can be expensive and perform poorly below 20 degrees F. Very little actually gets to your lawn or soaks into the soil, but ends up washing into the street and storm drain.

#### 5. Limit your use of Sand.

Sand doesn't melt ice, it simply provides traction. But through stormwater, sand increase the amount of sediment that is in our lakes, streams and rivers degrading or eliminating important habitat for aquatic organisms.

#### 6. Try an alternative!

Calcium magnesium acetate (CMA) is an alternative because it has fewer adverse environmental impacts than salt and doesn't cause corrosion. It is recommended for environmentally sensitive areas.

Sugar or corn carbohydrates by-products are one of the latest deicing products having negative environmental effect and safe for surfaces.

#### 7. Sodium Chloride and Calcium Chloride

Both sodium chloride and calcium chloride have advantages and disadvantages. Sodium chloride is the less expensive deicing product, but noat as effective as calcium chloride at lower temperatures. Calcium chloride costs more, but works well at very low temperatures (25 degrees F). Calcium chloride is less harmful to vegetation and only 1/3 as much is needed.

#### **Other Deicing Products**

Magnesium chloride, similar to calcium chloride (effective down to about 5 degrees F) but requires twice as much.

Potassium acetate, a costly liquid not available to the public works at very low temperatures, but is known to lower oxygen levels in waterways.

Ethylene glycol is highly toxic to aquatic life and mammals. Propylene glycol is considered a safer alternative for mammals, however it can decrease the oxygen in our waterways.

## **The Bottom Line!**

Dealing with ice and snow this winter is a way that protects our waterways is to shovel early and often, reduce the amount of deicer you use and be very contentious in how you apply deicing products. So get the hot coco brewing, pull on those snow boots and head on out to enjoy Indiana's

winters! Besides, you might just meet a really nice neighbor or two in the process!

