

## **Appendix B**

### **Upper Shenandoah River Basin**

#### **Drought Watch Responses and Water Conservation Measures**

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Upon entering into the Drought Watch stage, these are regional actions to be taken by the respective localities. At a minimum, the listed water conservation measures will be encouraged during periods of declared drought watch. These measures will be implemented on an individual locality basis when an Upper Shenandoah River Basin local government declares a drought watch stage. It is possible that the increased public awareness of water conservation activities during a drought watch may reduce water use up to 5%.

#### **Drought Watch Responses**

- A Drought Watch notification shall be publicized through the general news media or any other appropriate method for making such notification public.
- Localities will include water conservation information on their website.
- Localities will contact the Central Shenandoah Planning District Commission (CSPDC) office when a drought stage is implemented. The CSPDC will update the locality's drought status on the regional drought website.
- All citizens, including private well users, will be encouraged to begin voluntary water conservation measures (see below).
- Localities will review and/or update the regional Drought Preparedness and Response Plan.
- Public waterworks and self supplied water users who withdraw more than 10,000 gallons per day are asked to review and voluntarily implement existing drought water conservation methods as outlined in this plan.
- Locality staff will continue to monitor drought indicators on a monthly basis and report significant changes to local officials.
- Localities will increase water use efficiency and/or promote use reclaimed water for public facility landscaping.
- Localities may consider developing increased conservation rate charges or surcharges to respond to drought conditions.
- Continue conservation until water storage (source & distribution) is replenished.

#### **Individual Water Conservation Measures (Outdoor)**

- Use a broom instead of a hose to clean driveways, walks and patios.
- When swimming pools are not in use, reduce losses to evaporation by using a pool cover.
- Turn off ornamental fountains or other such structures, unless the water is recycled.
- Water the lawn at night or in the early morning to avoid evaporation.
- Mow lawns to two inches or more and leave the clippings. It will shade roots, provide nutrients and help retain moisture. Keep mower blades sharp to reduce water loss.
- Raise the lawn mower blade to at least three inches or to its highest level. A higher cut encourages grass roots to grow deeper, shades the root system, and holds soil moisture better than a closely clipped lawn.
- Use mulch around plants and other shrubbery to reduce evaporation. Mulch also helps control weeds that compete with landscape plants for water.

- Water slowly, deeply, thoroughly and infrequently to encourage root growth. Water deeply with a soil-soaker or drip irrigation.
- Remove weeds from vegetable and flower gardens to reduce competition for water.
- Water only when landscaping needs it. As a general rule, lawns only need one inch of water per week, less in the winter.
- Water trees and shrubs separately. Some only need to be watered once a month.
- Use a shut-off nozzle on hoses, which can be adjusted down to a fine spray so that water flows only as needed. When finished, turn it off at the faucet instead of at the nozzle to avoid leaks.
- Avoid over fertilizing lawns. Fertilizer applications increase the need for water. Apply fertilizers that contain slow-release, water-insoluble forms of nitrogen.
- Aerate regularly and use mulch to reduce evaporation.
- Plant native or drought-tolerant grass and plants.
- Check sprinkler systems in the spring to insure proper working order. Avoid watering walks, driveways, or the street.
- Check sprinkler systems regularly for leaks.
- Use a bucket to wash cars instead of a hose, or consider using a commercial car wash that recycles water.
- Place rain barrels under gutter downspouts. They can collect rainwater for plants, car washing or general cleaning projects.

### **Individual Water Conservation Measures (Indoor)**

- Verify that homes are leak free. Many homes have hidden water leaks. Read your water meter before and after a two-hour period when no water is being used. If the meter does not read exactly the same, there is a leak.
- Turn off the water while brushing teeth, washing your face or hands, and shaving.
- Replace old washing machines with a horizontal-axis machine that uses less water and energy. Wrap hot water heaters and pipes with insulating material.
- Avoid running the tap for a cold drink. Keep a pitcher of water in the refrigerator.
- Install faucet aerators, which reduce wastewater by mixing water and air.
- Take showers rather than baths.
- Limit showers to once a day for five minutes and do not fill bathtubs more than 1/3 full for baths.
- While showering, turn off the water when soaping up.
- Do not use your toilet as a trash can. Throw things away instead of flushing them down the drain.
- If your home is more than five years old, the chances are your toilet is using more water than necessary and could operate with less water. To lower the amount of water used for each flush, your need to displace water in the toilet tank. Two ways to displace water are listed below.
  - Place toilet dams in the tank. They hold back water and prevent it from leaving the tank. Dams can be purchased at your local hardware store.
  - Use pop bottles or a plastic jug to displace the water in your tank so that there is less water flowing into the bowl. Fill the bottle with water or place rocks in the bottom of the container for weight.

- Install a low-flow showerhead to reduce water use. To check the flow rate of your existing showerhead, turn the shower on all the way and see how long it takes to fill a one-gallon bucket. If your showerhead fills a one-gallon container in less than 15 seconds, it is using more than 4 gallons per minute (gpm) of water. When buying a showerhead, be sure that it delivers no more than 2½ gallons per minute; 1½ to 2 gpm is even better.
- Do not use a garbage disposal.
- Do not rinse dishes prior to putting them into an automatic dishwasher. Instead, wipe them with paper napkins from the meal or use a partially filled sink to do any necessary pre-washing.
- Run the dishwasher (and washing machine) only when they are full.
- If washing dishes by hand, rinse them in a half-full basin or pan instead of under running water.
- Dispose of paper and excess food in the garbage rather than the garbage disposal. Garbage disposals may add 50 percent to the volume of solids in a septic tank, which can lead to malfunctions and maintenance problems.
- Fill the washing machine with a full load of laundry. If your machine has a water level selector, make sure it is always set to match the amount of laundry being washed.

#### **Commercial Conservation Measures**

- Implement voluntary water reduction and conservation plans.
- Discontinue use of decorative fountains.
- Require commercial facilities with monthly demand exceeding a threshold limit to conduct a self-audit.