



# EarthWatch Rhode Island



## **Topic: Dry Conditions Call for Increase Water Conservation**

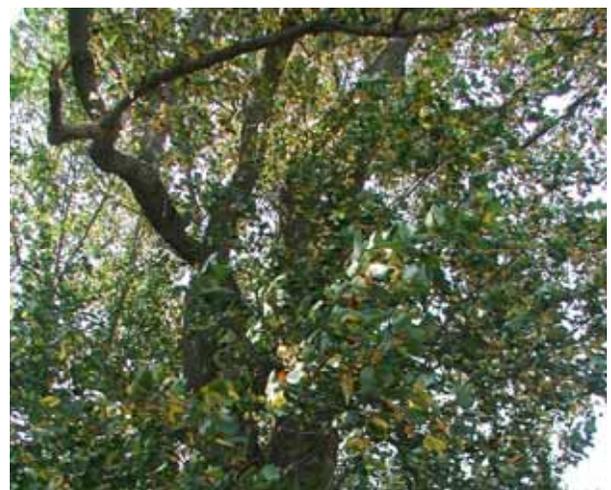
**Air Date: September 7, 2007**

Although not officially a drought, dry conditions are beginning to have an affect on ecosystems throughout Rhode Island.

The state has experienced a cumulative deficit in rainfall of 3.69 inches below normal over the last 4 months, with the second driest August in 113 years of data collection according to the Northeast Regional Climate Center. Stream flows across much of the state are at the lowest 2% of their historical flows according to data available from the United States Geological Survey (USGS). These low flow conditions have now persisted for over a week on some rivers – a condition which is expected to re-occur only once every ten years. Ground water levels in some areas are also below normal.

Agriculture and fish populations are usually the first to be affected under dry conditions. When a stream is low, what little water remains tends to channel along the middle of the stream making the roots along the banks unavailable for fish to feed on, hide from predators and shade themselves. A low stream flow situation for a short time causes stress on fish populations. Longer periods can result in fish die-offs, and on smaller streams, dry streambeds.

When ponds, streams and wells which farmers rely on for irrigation are low, crops die or need to be harvested earlier resulting in lower yields. Pastures that feed livestock dry up and require supplemental feeding. Lower crop yields and increased costs of irrigation and feeding can have dire economic consequences for local farmers.



Dry conditions at Watson Farm - Above, the grass in this field has not re-grown and forcing the farm owner to purchase more feed and to sell off some animals. Below, the leaves of this Tulip tree have begun to change much earlier than normal due to the severe lack of water.

For example, the pastures at Watson Farm, a local grass-fed livestock farm in Jamestown, are dried out. The owner, Don Minto, has been forced to purchase grain and hay to feed the livestock and is also selling off some animals because of the additional cost of buying the supplemental feed.

Even though the end of the growing season for most crops is near and typically the state rainfall increases in the fall, DEM is encouraging voluntary conservation measures at farms to minimize impacts to stream flow where farms use streams for irrigation supply. And, if it becomes necessary, the Department will expedite permitting of agricultural pond construction or expansion projects.

The Department is also urging Rhode Islanders to do their part to conserve water, especially outdoors where residential water use can increase 50% or more – most of which is used to water lawns and flower gardens. People should refrain from any non-essential uses, such as watering lawns and non-food gardens and filling swimming pools, until further notice. Commercial users are also being encouraged to curtail their water use to the extent possible.

**Resources:**

- Water conservation tips can be found at <http://www.wrb.ri.gov/education.htm> and on all major water suppliers' webpages. Links can be found at <http://www.wrb.ri.gov/watersuppliers.htm>.

**Interviews:**

- Elizabeth Scott (below, left), DEM, Deputy Chief of Water Quality and Standards provided an overview of dry conditions statewide and talked about easy water conserving practices and devices that homeowners can practice and install
- Don Minto (below, right), Owner, Watson Farm discussed specific aspects of how they are managing farm operations under dry conditions and the economic impacts

