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Of Rivers Alliance of Connecticut

Sent: Monday, September 07, 2015 10:26 PM

To: Chris Freeman

Subject: Drought and vulnerable waters

Streamflows in Connecticut Have Worsened

We reported two weeks ago a spotty drought and widespread dry conditions. As you may have guessed, conditions have worsened. According to the US Geological Service (USGS) map of CT, nine rivers CT are in "Red Dot" status, meaning that their current flow rate is LESS than the LOWEST

average for today's date recorded over the course of about 69 years. An additional 20 or so streams and rivers are lower than 90% of their records over at least 30 years. More information and the USGS maps and charts are at our

website. http://www.riversalliance.org/drought2.cfm

Low flows and low groundwater disproportionately harm small streams and river

fish. As groundwater drops and headwaters and wetlands dry, small streams may disappear altogether. Cold water fish, like native trout, die off. Healthy small streams typically create cool spaces (thermal refuges) when they intersect with larger streams. These cool spaces give fish and other aquatic species a place retreat as river temperatures rise. But when tributaries themselves run low and warm, and dry weather continues, thermal refuges shrink and even disappear. BELOW IS A GRAPH DOCUMENTING THE DISPROPORTION.

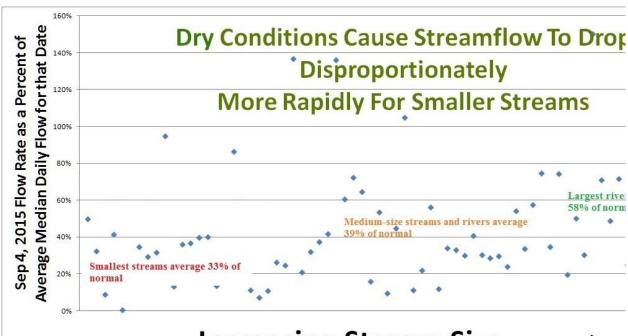
Low flows also inflict grievous harm on impaired rivers. Rivers like the Quinnipiac or the Still River, which receive large waste discharges, may appear more or less normal in a drought. But although wastewater may make a stream look acceptable, the water quality may be very poor. Low flows can transform a healthy river to an impaired river. Thus, even in a hot summer, the Hammonasset River is healthy when it flows into the reservoir in Madison. But as the water is used elsewhere and water over the dam disappears, water quality in the remaining river is poor.

What rivers are suffering? BELOW is a list of streams rivers suffering from lack of water. There are others that are not monitored.

What can you do? Take pictures. Record your observations in some form. Ask your local conservation commission to raise its voice. Let the press hear from you. (Good photos are often welcome.) The state is beginning comprehensive water planning and streamflow regulations are slowly being set. But it will be many years before significant relief is in place. Local evidence of problems is invaluable. Rivers Alliance will publicize the evidence as best we can.

Is water supply at risk? Most reservoirs are doing well at or above 90 percent of capacity. (The brief, intense rainstorms we've been having help reservoirs, which can hold the water. But, on the rest of the landscape, intense rain exceeds the ability of ground and streams to soak it up. It runs off as (usually polluted) stormwater and causes flashy changes in flow.) However: *Bristol reservoir supply is down to 70 percent of capacity, and Groton is also in trouble*. Both are pursuing water-conservations efforts. The Department of Public Health is asking all systems to be vigilant.

This graph plots the rate of flow on Sep 4 as a percentage of the median for each stream gage. For example, a dot at the 40% line means that stream that day was flowing at 40% of what could be considered normal for that date. The few rivers and streams flowing at or above 100% of their median rate are mostly those with flows managed by dam releases.



Increasing Stream Size ----->

Here is the list of all stream gages were recently showing flow rates that were close to their lowest recorded for late August - early September.

Aspetuck River at Aspetuck (Easton)

Bunnell (Burlington) Brook near Burlington

Byram River at Pemberwick (Greenwich)

Coginchaug River at Middlefield (Middletown)

Eightmile River East Branch near North Lyme

Fenton River at Mansfield

Fivemile River near New Canaan

French River at North Grosvenordale

Hubbard River near West Hartland

Indian River near Clinton

Latimer Brook near I-95n Exit 75 near Flanders (East Lyme)

Little River near Hanover (Plainfield)

Mount Hope River near Warrenville (Ashford)

Natchaug River at Marcy Rd. near Chaplin

Natchaug River at Willimantic

Naugatuck River At Beacon Falls

Naugatuck River at Thomaston

Nonewaug River at Minortown

Norwalk River at South Wilton,

Nipmuc River near Harrisville, RI

Park River North Branch at Hartford

Pawcatuck River at Westerly, RI

Pawcatuck River at Wood River Junction, RI

Pendelton Hill Brook near Clarks Falls (North Stonington)

Pomperaug River at Southbury

Pootatuck River at Berkshire (Newtown)

Pootatuck River at Sandy Hook (Newtown)

Quinebaug River below Westville Dam near Southbridge, Ma

Quinebaug River at Quinebaug

Quinebaug River at Putnam

Quinebaug River at Jewett City

Quinebaug River at West Thompson

Quinnipiac River at Southington

Pendelton Hill Brook Near Clarks Falls

Ridgefield Brook at Shields Lane near Ridgefield

Rooster River at Fairfield

Salmon River near East Hampton

Sasco Brook near Southport

Still River at Robertsville

Shetucket River near Willimantic

Still River at Route 7 at Brookfield Center

Weekeepeemee River at Hotchkissville (Woodbury)

Willimantic River at Merrow Rd. (Mansfield)

Willimantic River near Coventry

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