

Interagency Drought Workgroup Minutes

January 22, 2016, 9:30 AM
Office of Policy & Management
Room 4A, 450 Capitol Ave.
Hartford, CT 06106

CT Agency representatives:

Corrine Fitting, DEEP; William Foreman, DEEP; David LeVasseur, OPM; Eric Lindquist, OPM; Lori Mathieu, DPH; Ryan Tetreault, DPH; Bruce Wittchen, OPM

Other attendees:

Nicole Belk, NWS Taunton

1. Call to order

Dave LeVasseur called the meeting to order at 9:35.

2. Discussion of Existing Conditions

- **Review & evaluation of data**

Bruce Wittchen said that only two out of seven indicators are currently triggered: groundwater and streamflow. He said that groundwater and streamflow have begun improving since the last time the group met, but the weather pattern so far this winter has not been ideal for a recovery to normal levels by spring. He mentioned that DPH expressed concern about the reservoir status.

Lori Mathieu expressed her concerns over the reservoir data. She said that the statewide average stands at 87.9% of normal for the month of December – well above the trigger – but what concerns her are the reservoir levels compared to their historical averages. Statewide storage in December was at 78% of capacity, whereas the historical average is 88% for the same period. The group reviewed a bar chart (Attachment 1) which visualized Lori's explanation.

Bruce recommended that DPH analyze the reservoir data to see whether it makes sense to adjust the trigger, such as using a variable trigger which changes according to the time of year. Lori said that she is hard-pressed to find resources to do such analyses as staffing is at an all-time low. She stated that the Interagency Drought Workgroup deserves a consultant who can analyze all of the available data and make recommendations. David LeVasseur said there is no money for a consultant. Bruce said that it could be made part of the scope of the broader water planning process, but suggested that the problem might be better addressed with greater use of professional judgement.

Corrine Fitting inquired of the status of the WPCAG Drought Plan Workgroup – the group charged with updating the State's Drought Plan. Bruce gave an update on the

group, which is currently working to improve the drought stage triggers to better handle rapid declines in the drought indicators. Lori said she would like to see “system capacity” as an indicator in addition to the current “reservoir status” indicator. David mentioned that some utilities intentionally pump more groundwater when reservoir levels get low, and asked Lori how we would be able to track that. Lori said she would like to make water utilities responsible to track and report groundwater levels. She mentioned that under DPH’s broad statutory power, DPH can ask for any data it feels is reasonably appropriate. Lori said that water companies will overuse some sources so they can fill the tanks for people to irrigate. She would like to see some report on how water systems are performing and which sources are being utilized. Lori and Corrine said they would work together to make such request of every water utility with a water supply plan.

Lori shared a GIS map of reservoir status by service area for December (Attachment 2). There was discussion on several service areas that are struggling: Greenwich, Southington, New London, and a large portion of Regional Water Authority. There was some discussion regarding geographic areas for drought advisories. Bruce said the group should be authorized to enter into drought advisories at whatever geography is appropriate, and that we shouldn’t limit ourselves to the county level.

Nicole reviewed precipitation data from the National Weather Service and CoCoRaHS for the 1-month, 2-month, 3-month, 6-month, and 12-month periods. She said there are no large systems on the horizon through the end of the month; however, the Climate Prediction Center predicts above normal temperatures and above normal precipitation for the next two weeks. With the current el Nino pattern, the chances of flooding rains in the spring are much above normal.

There was discussion about the possibility of reservoirs, groundwater, and streamflow not fully recovering over the winter and starting off the Spring watering season below normal. The need for better public awareness messaging in the months and weeks leading up to a possible drought advisory declaration, such as a “drought watch” message was discussed. Corrine inquired about the use of the U.S. Drought Monitor as a public awareness tool, and whether it should become a part of the State’s messaging. Nicole Belk said that she routinely tells the public that the U.S. Drought Monitor is a guidance document, and that the states are ultimately responsible for declaring drought.

David asked whether the WPCAG Drought Plan Workgroup has considered weighted criteria. He mentioned that, for example, the Palmer Drought Index is not a very good indicator except for agriculture, yet it is given the same weight as groundwater and streamflow. Bruce said the three most important indicators are streamflow, groundwater, and precipitation. Lori asked whether there should be a weighted, two-tier approach based on the season. Dave said that the current criteria were established 12+ years ago in response to traditional types of drought, and that the Drought Plan Workgroup needs to look at refreshing the indicators.

Bruce moved the discussion to the groundwater indicator and what the data show. He asked the group members their opinions on how the groundwater trigger can be more effective. A majority of sites below normal? Half below normal? Bruce reiterated that the Drought Plan Workgroup is going to modify the trigger to better account for faster rates of decline, when groundwater drops like a rock like we saw in

the Fall. Regarding private groundwater wells, Ryan Tetreault said it would be useful to distinguish homes that rely on well storage from those that rely on well yield, referring to the size of the well columns. He said such information could be obtained by looking at well drilling completion reports from the Department of Consumer Protection. Bruce said such information would also be important to the State Water Plan.

Bruce moved the discussion to the streamflow indicator. He said levels are back up but the indicator is still triggered because 2 out of 3 consecutive months were below normal. There was discussion about relying on the Hydrologic Unit Code (HUC) maps, as has been done up to now for assessing streamflow by region, or whether it is better to consider how each stream gauge performs individually. It was decided that the HUC maps can hide more data than they show and the group would revert back to considering the individual stream gauge map going forward.

Nicole discussed snowpack modeling from the National Operational Hydrologic Remote Sensing Center.

- **Course of action**

The group decided that it should meet again around the middle of March to assess conditions heading into the Spring. If the indicators do not recover by Spring, the group may decide to issue a public information statement to alert the public of starting off the watering season with below normal conditions. It was discussed that the group should be quick to act if conditions do not improve.

Going forward, the following actions will occur:

1. The WPCAG Drought Plan Workgroup will continue to assess and modify the existing drought plan criteria and triggers to build in greater professional judgement and account for varying rates and intensities of developing drought.
2. Lori will issue a letter to water systems that have water supply plans asking them to pay attention to capacity levels and pay attention to the drought triggers in their water supply plans.
3. Lori and Corrine will consider an approach for asking water suppliers with water supply plans to regularly report to DPH on the status of their water system operations and water supplies, including groundwater pumping.

People were thanked for their participation and the meeting was adjourned.

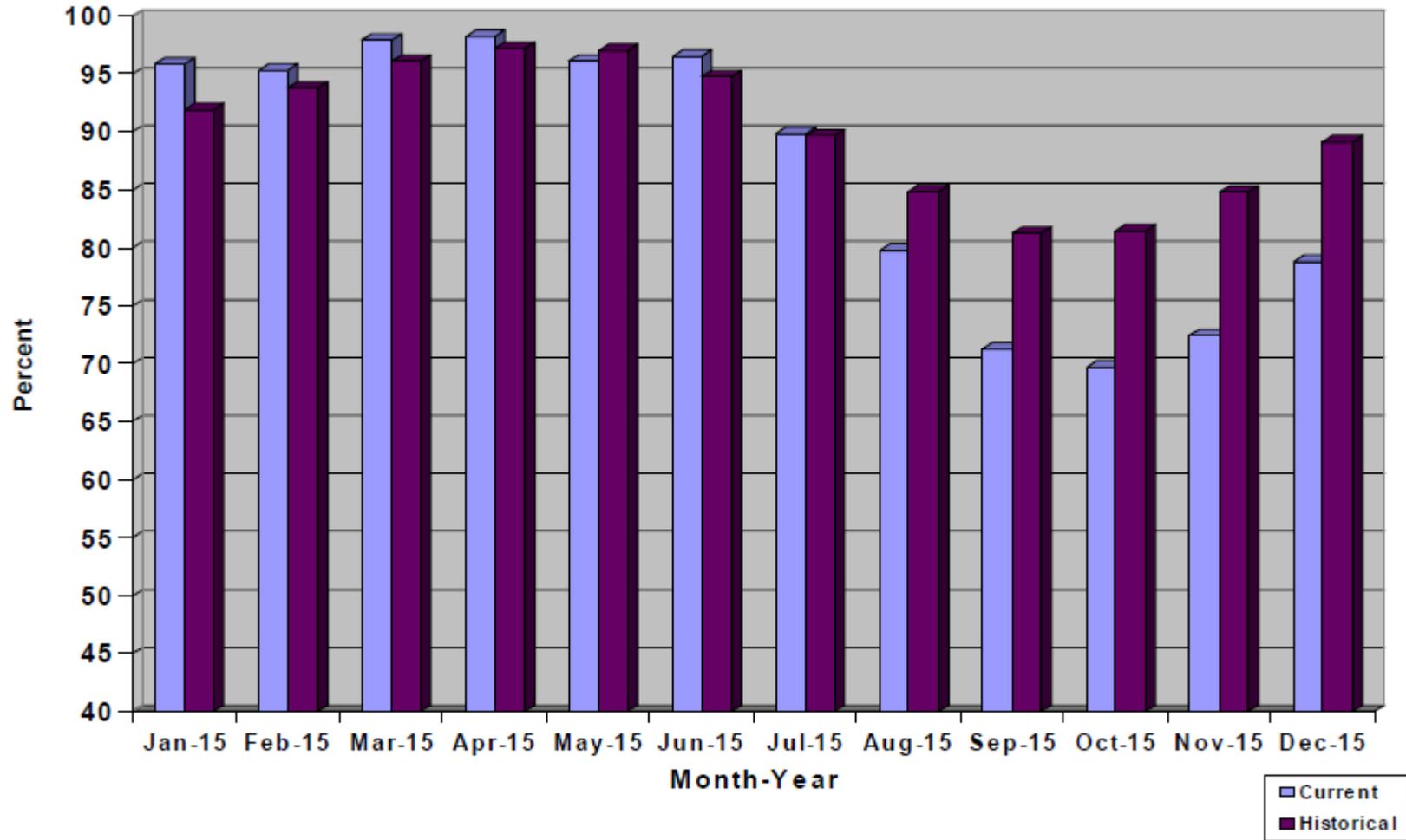
3. Date for next meeting

To be Determined

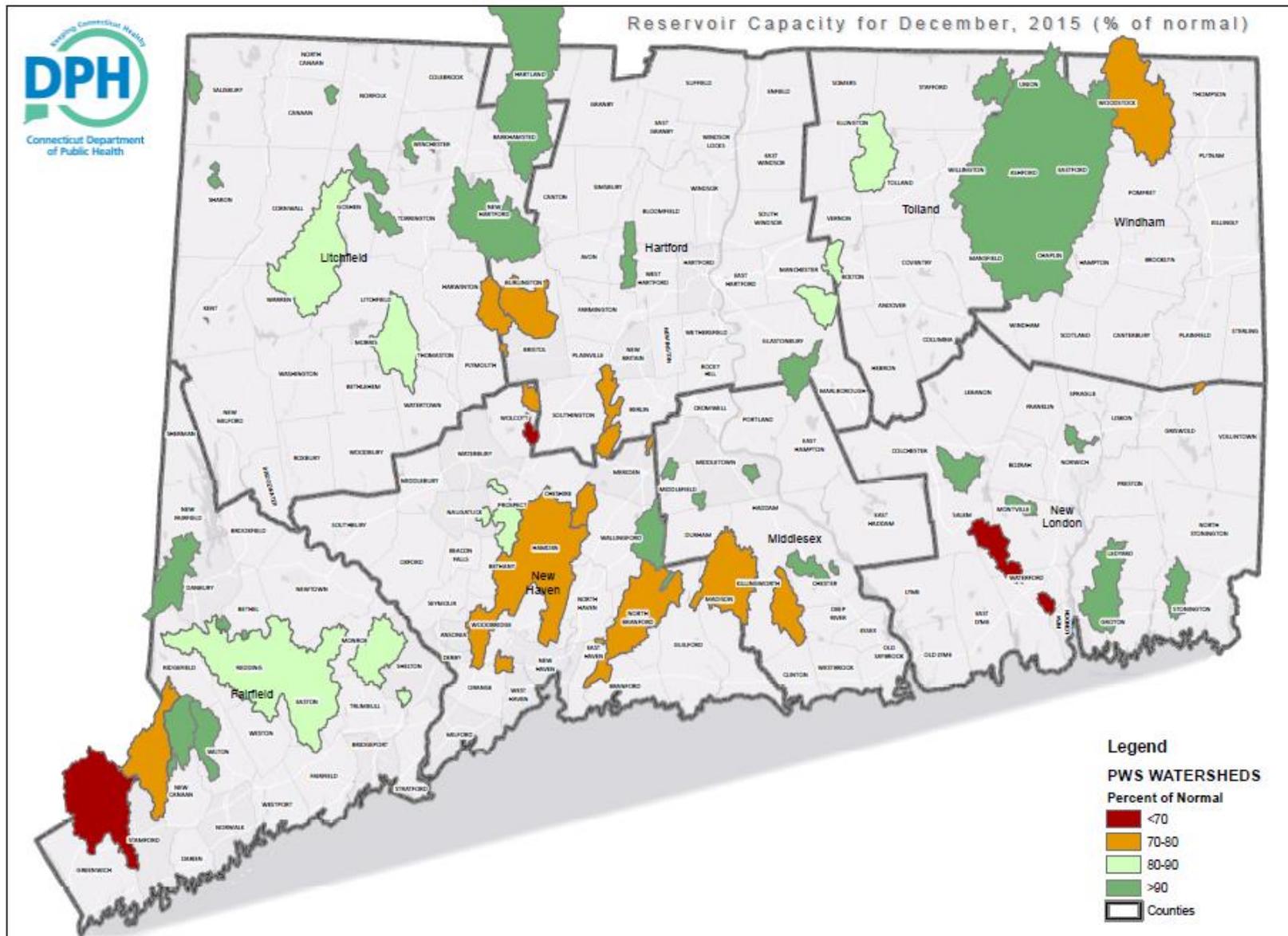
4. Adjournment

Attachment 1

State of Connecticut
Reservoir Capacity Levels - Statewide



Attachment 2



Attachment 3: Drought Advisory Criteria, as of 01/22/2016

Precipitation:

Ground Water:

Streamflow:

Reservoirs:

Palmer Drought Severity Index:

Crop Moisture Index:

Fire Danger:

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