

# Connecticut Interagency Drought Workgroup

## 2022 Drought After-Action Report & Improvement Plan

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### Abbreviations

DAS - Department of Administrative Services  
DEEP – Department of Energy and Environmental Protection  
DEMHS – Division of Emergency Management and Homeland Security  
DoAg – Department of Agriculture  
DPH – Department of Public Health  
IDW – Interagency Drought Workgroup  
OPM – Office of Policy and Management  
OTG – Office of the Governor  
PURA – Public Utilities Regulatory Authority  
WPC - Water Planning Council

### IDW Post-Drought Action Workgroup Membership

- Doug Hoskins, DEEP
- Doug Glowacki, DEMHS
- Josh Cingranelli, DEMHS
- Eric Lindquist, DPH
- Steve Harkey, DPH
- Ryan Tetreault, DPH
- Eileen Underwood, DoAg
- Maria Szul, PURA
- Bruce Wittchen, OPM
- Rebecca Dahl, OPM

## Connecticut Interagency Drought Workgroup 2022 Drought After-Action Report & Improvement Plan

### Timeline Actions

- **June 2, 2022**
  - IDW advises Stage 1 designated for New London and Windham counties
- **July 13, 2022**
  - IDW advises Stage 2 designation for all counties
- **July 14, 2022**
  - Governor declares Stage 2 designation for all counties
- **August 18, 2022**
  - IDW advises Stage 3 for New London and Windham counties
  - Governor declares Stage 3 for New London and Windham counties
  - All other counties remain in Stage 2
- **October 6, 2022**
  - IDW advises reducing New London and Windham counties to Stage 2
  - Governor reduces drought advisory for New London and Windham counties to Stage 2
- **November 7, 2022**
  - IDW places all counties in Stage 1
- **December 8, 2022**
  - IDW removed Stage 1 from New London, Middlesex, Tolland and Windham counties
- **January 5, 2022**
  - IDW removed Stage 1 from Fairfield, New Haven, Litchfield, and Hartford counties
- **January 19, 2022**
  - Email correspondence from IDW Chair (Martin Heft) to IDW Members regarding Section VI: Drought Recovery of the State Drought Plan and Post-Drought Actions
  - OPM Staff begin outreach to State Agency Staff to coordinate
- **February 2, 2023**
  - IDW begins Post-Drought Action review
  - OPM begins contacting IDW Agency Staff on meeting schedule.
- **February 16, 2023**
  - First IDW Post-Drought Action Workgroup Meeting – Agency Staff meet to begin assessing response and discussing challenges from 2022 Drought
  - OPM Staff begin review of Municipal Drought Ordinances and State Drought Plan

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### 2022 Drought After-Action Report & Improvement Plan

- **March 2, 2023**
  - IDW Meeting and Discussion on Post-Drought After-Action Report
  - Discussion on State Drought Coordinator appointment and State Agency responsibilities
- **March 6, 2023**
  - OPM & DPH Staff meet to discuss DPH-specific Post-Drought Concerns
- **March 24, 2023**
  - IDW Post-Drought Action Workgroup Meeting
    - Presentations from DEEP Forestry & Fisheries Divisions
- **April 6, 2023**
  - IDW recommends appointment for State Drought Coordinator (Rebecca Dahl) to Water Planning Council
- **April 13, 2023**
  - OPM & DEEP Staff meet to discuss DEEP-specific Post-Drought Concerns
- **April 20, 2023**
  - IDW Post-Drought Action Workgroup Meeting
    - Discussion on Flash Drought
    - Presentation and Discussion on DoAg Data Collection
- **May 2, 2023**
  - Water Planning Council appoints State Drought Coordinator on IDW's recommendation
- **May 18, 2023**
  - IDW Post-Drought Action Workgroup Meeting
    - Recap & Discussion on Flash Drought from Eric Lindquist, DPH
- **June 22, 2023**
  - IDW Post-Drought Action Workgroup Meeting
    - Review and Refinement of 2022 Drought Post Action Report
    - Refinement of Drought Plan Recommendations and Discussion on Next Steps
- **July 20, 2023**
  - IDW Post-Drought Action Workgroup Meeting
    - Review and Refinement of 2022 Drought Post Action Report
    - Refinement of Drought Plan Recommendations and Discussion on Next Steps
- **August 17, 2023**
  - IDW Post-Drought Action Workgroup Meeting
    - Consensus-driven approval on 2022 Drought Post-Action Report

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2022 Drought After-Action Report & Improvement Plan**

**2022 Drought Meeting Minutes & Reports Matrix**

Highest Stage	Extent	Date	Minutes	Data Conditions Report
None	Statewide	5/5/2022	<a href="#">Minutes</a>	No report, but it was noted that US Drought Monitor mentioned dryness in coastal CT w/o DO; also that reservoirs are 101% of normal overall but four are slightly below normal; and Fire Danger is moderate.
1	Statewide	6/2/2022	<a href="#">Minutes</a>	<a href="#">Drought Conditions Report</a>
2	Statewide	7/13/2022	<a href="#">Minutes</a>	<a href="#">Drought Conditions Report</a>
2	Statewide	8/4/2022	<a href="#">Minutes</a>	<a href="#">Drought Conditions Report</a>
3	Stage 3 only in Windham & New London Counties; Others Stage 2	8/18/2022	<a href="#">Minutes</a>	<a href="#">Drought Conditions Report</a>
3	Stage 3 only in Windham & New London Counties; Others Stage 2	9/8/2022	<a href="#">Minutes</a>	<a href="#">Drought Conditions Report</a>
2	Statewide	10/6/2022	<a href="#">Minutes</a>	<a href="#">Drought Conditions Report</a>
1	Statewide	11/7/2022	<a href="#">Minutes</a>	<a href="#">Drought Conditions Report (Handout 1)</a> <a href="#">Drought Conditions Report (Handout 2)</a>
1	Stage 1 only in Fairfield, Hartford, Litchfield. And New Haven Counties	12/8/2022	<a href="#">Minutes</a>	<a href="#">Drought Plan Review by Recommendation</a> (spreadsheet developed by the IDW)
None	Statewide	1/5/2023	<a href="#">Minutes</a>	<a href="#">Drought Conditions Report</a>

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### 2022 Drought: After-Action Review – Findings

#### Improvements Following the 2022 Drought

- **Coordination Among State Agencies:** Following the 2022 Drought, the IDW and agency staff discussed ensuring alignment among State Agencies in monitoring drought conditions and acting throughout the drought stages. A recommendation made within the State Drought Plan (updated September 6, 2022) stated that there should be one person appointed as the State Drought Coordinator to streamline reporting and coordinate agency activity. Since May 2023, this role has been officially filled by staff at OPM.
- **Communications and Documentation:** Throughout the 2022 Drought, the IDW and agency staff exercised and established improved modes of communication for drought declaration, including:
  - Better interagency collaboration and communications established:
    - OPM communications worked very closely with OTG.
    - OPM and DEEP communications team attended IDW meetings.
    - Other crucial agencies (i.e.: DAS) attended IDW meetings,
  - Templates for communications established (Recommendation 4.20<sup>1</sup>)
    - OPM communications has been utilizing past press releases as templates.
    - Worked with them to establish base templates for each stage.
    - Used past Governor correspondence to create templates.
  - Process and mechanisms to document decisions (Recommendation 4.21<sup>1</sup>)
    - We have correspondence to/from OTG and all declaration have been posted on website.
    - Created log journal/spreadsheet for drought period that contains all actions taken at each Drought Stage.
    - Improved coordination with emergency response teams (especially local response and fire districts) on responding to the heightened threat of forest fire in periods of flash drought.
    - Improved aid of and communication with Municipal Drought Liaisons in identifying localized drought conditions.
    - Municipal Drought Liaisons lists are proactively updated by DEMHS staff.
    - All IDW agencies more proactive in drought monitoring and preparedness (e.g., roles outlined in Stage 1 are proactively filled.)

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<sup>1</sup>Recommendations referenced were developed by the Drought Sub-Work Group of the Implementation Workgroup and provided to the Interagency Drought Workgroup in July 2021.

### Areas Needing Further Improvement

- **Difficulties Moving Out of Drought Stages:** As conditions improved throughout 2022 and into 2023, one challenge was determining precisely how to reduce drought stages (e.g., moving from Stage 3 to Stage 2.)

This is largely because the defining criteria for moving into drought stages (e.g., from Stage 2 to Stage 3) are dependent on long-term trends. For example, one measurement for moving into Stage 3 Drought is that the groundwater levels persist in the 25<sup>th</sup> percentile for four consecutive months. Moving out of a Drought Stage does not have a clear inverse measure which can make it difficult to create a clear action plan and/or garner consensus.

- **Identifying Gaps in Data and/or Triggers:** There are a few areas where the gaps in data and/or drought triggers within the State Drought Plan have been identified as a recurring issue. As noted above, there is significant difficulty in reducing drought stages, in part due to the nature of the parameters established. Parameters for moving out of drought stages should be explored further.

As the State Drought Plan currently operates, every drought trigger within the Plan is weighted equally (e.g., Crop Moisture Index and Groundwater Levels) and while all measures contribute to our understanding of drought impacts, they are not all created equally. The concept of weighting certain drought parameters and/or triggers should be explored further.

Finally, the IDW Post-Drought Action Workgroup discussed the concept that there are certain qualitative measures and/or means of collecting information that are not currently captured within the plan. Examples include observations of fisheries impact, feedback from farmers and agricultural operators, and forest managers. Ecological measures and phenomena such as these are not easily quantified but are still important to the management of the State's water resources. Further consideration should be given as to how to incorporate these levels of feedback from practitioners that are on the ground.

- **Rapid-Onset "Flash" Drought:** Over the last couple of decades, drought has become a more common and nuanced occurrence. While long-term drought is

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still a possibility in Connecticut, the occurrence of “Flash Drought” has been identified as a more common threat. Flash Drought (or rapid-onset drought) can occur with a variety of combined weather and hydrological conditions and as the name indicates, occurs at an increased pace. The various forms of rapid-onset drought may have impacts on agriculture, fire danger, stream levels, etc. and warrants further exploration by the IDW. In addition, the parameters for identifying and establishing protocol for Flash Drought should be considered.

### **Next Steps – State Drought Plan Recommendations:**

In response to the findings of this After-Action Report, the IDW Post-Drought Action Workgroup would like to home in on the identified challenges and develop recommendations for the improvement of the State Drought Plan.

As a result of the IDW Post-Drought Action Workgroup’s discussions, agency staff are also coordinating a Scenario-Based Exercise with staff from the Northeast Drought Early Warning System (NE DEWS) to further test the current State Drought Plan under more extreme circumstances. This exercise will result in further recommendations for improvement to the State Drought Plan and is expected to take place in early 2024.