

DROUGHT RESPONSE PLAN FOR DEM DIVISION OF AGRICULTURE

Introduction

The Water Resource Board (WRB) [Rhode Island Drought Management Plan](#) establishes coordinated procedures for the State of Rhode Island's response to severe drought episodes. It outlines the responsibilities of state, federal and local entities involved in water resources management, and it defines the roles these key entities are to play in the state's response to a long-term drought. Duties related to data gathering, anticipation of drought conditions, and mitigation of the effects of drought are described. Policies and recommendations are established to anticipate drought conditions, respond early and coordinate resources to effectively manage the state's water resources during a drought.

This document outlines the role of the DEM Division of Agriculture (DAG) in responding to a drought.

In general, DAG responsibilities increase with the volume and duration of shortfalls in available water supplies. (See appended table of "Rhode Island Drought Indices and Phases" as well as WRB [Rhode Island Drought Management Plan](#), Sections 04-04 and 04-05.)

- During **Normal** conditions, DAG develops and implements long-term plans to minimize the vulnerability of agriculture to droughts, contributes to the monitoring of stream flow and groundwater, and relays relevant information to agricultural stakeholders.
- During a **Drought Advisory**, DAG also publicizes water conservation techniques in agriculture, requests farmers to conserve, and initiates appropriate steps of the "Drought Response Plan for Agriculture," listed below.
- During a **Drought Watch**, DAG increases its monitoring of agricultural impacts and works with the WRB to provide a list of water suppliers and water transporters willing to supply farmers.
- During a **Drought Warning**, DAG also assesses actual and predicted impacts of drought on agriculture, and when appropriate, coordinates with the Governor the development of an emergency declaration, as in applying for state or federal disaster assistance.
- All of these actions are likely to be appropriate in responding to and recovering from a **Drought Emergency**:

Monitoring

The Division of Agriculture (DAG) will monitor stream flow at the United States Geological Survey gauging stations, predominately within the Pawcatuck Basin. Stream flows will be evaluated in relation to selected flow levels indicative of low flow or drought conditions, as well as in relation to rainfall and groundwater levels. DAG will provide written information on stream flow and precipitation levels on a regular basis to farmers and stakeholders.

Disaster Funding

DAG, in coordination with the United States Department of Agriculture (USDA), will seek federal and state disaster and emergency response funding for agriculture as necessary. DAG will coordinate with the Governor's Office for a

disaster declaration, if necessary, which will enable the state to seek federal disaster assistance. Federal disaster assistance will be sought to provide compensation for crop losses attributable to drought and cost sharing on ponds and wells constructed for emergency water supply.

Media Campaigns and Marketing

DAG will conduct a media campaign and special marketing program to increase and maintain public awareness of the importance of local agriculture, and to foster support under drought conditions. The campaign will use a variety of available media to deliver information.

Emergency Water Supply

DAG will coordinate with appropriate state and federal agencies to provide emergency water supplies. The DAG and the Water Resources Board will develop and provide to farmers a list of water suppliers and transporters available to provide and/or transport water. DAG in coordination with USDA and the Emergency Management Agency will provide and set up water bladders at farms where water supply is critically low and where there is imminent danger of livestock or crop losses. DAG in coordination with appropriate offices of DEM, Army Corps of Engineers and USDA will issue emergency permits for pond or well construction in accordance with the protocol listed below in item G. DAG will facilitate any available effort to provide water to farmers under drought conditions.

Long Term Planning

DAG in coordination with the USDA shall continue long-term planning efforts to reduce the potential vulnerability of farmers to drought conditions, including water supply and use management by farmers of adequate water supplies, improvements to pumping and irrigation conveyance systems, and emergency response planning.

Construction and/or Expansion of Agricultural Ponds

The Director of DEM may authorize revised and expedited permitting procedures for farmers during a drought. These procedures pertain to the review by DAG of the construction of new ponds, expansion of existing ponds, or the construction of temporary wells by farmers for agricultural purposes.

The following **standards and conditions for construction and/or expansion of ponds or wells under drought conditions** shall apply:

1. Project construction shall not initiate prior to written authorization by DAG. (See [Agricultural Wetlands Permit Application](#), ERP 6-12-3.) The DAG may verbally authorize on site the initiation of construction for critical situations, and shall follow-up in writing within 24-48 hours. Approvals are valid for a period of sixty (60) days and all construction must take place during this period. All plan modifications must be approved by DAG and be reflected in an amendment to the original permit. The DAG shall coordinate all project reviews with the Division of Water Resources.

2. Revised and expedited permitting procedures shall pertain to “legitimate” farmers who do not meet the definition of farmer pursuant to RIGL 2-1-22 (j), where critical water needs exist. Permitting procedures shall also pertain to the construction and use of wells on a temporary basis, and fill for pond embankments where absolutely necessary. Authorization to use wells is limited to drought conditions as determined by the Director. A Memorandum of Understanding shall be executed between the DAG and Division of Water Resources regarding this section.
3. Permits shall be issued only for projects determined to be insignificant alterations for freshwater wetlands. Adverse effects to the flow and circulation patterns and chemical and biological characteristics of freshwater wetlands and the aquatic environment shall be minimized. The water quality status of surface waters and their tributaries within the project area must not be degraded. Projects shall not divert or impound stream flows.
4. All project plans and proposals shall be consistent with USDA/Natural Resources Conservation Service standards. The farmer is responsible for providing supporting documentation regarding the project, field delineation of the proposed pond footprint, and site characteristics. Supporting documentation for the project shall include plans describing the pond features, wetland edge, and a written description of the project.
5. No fill material may be placed into any wetland either onsite or offsite unless specifically authorized either as a part of the approval for this project or a separate approval. Adequate measures shall be taken prior to, during and following construction to ensure protection of wetlands areas from sediment deposition. Soil and erosion and sediment controls shall remain in place until all areas have stabilized.
6. Approvals issued by DAG do not remove the applicants obligation to obtain necessary permits from other federal, state or local agencies, and must be consistent with the U. S. Army Corp of Engineers Programmatic General Permit for Rhode Island. (Note: irrigation ponds by farmer are specifically exempt from Section 404 permitting requirements).
7. DAG staff will visit and review the site during construction for conformance.

Source: Water Resources Board (WRB), Rhode Island Statewide Planning Program, Department of Administration, State Guide Plan Element #724, [Rhode Island Drought Management Plan](#), Appendix E, pp. E1-E2. That Plan is on-line at <<http://www.wrb.state.ri.us/lawsregs/droughtplan.pdf>>. See also the WRB homepage at <http://www.wrb.state.ri.us/>.

Rhode Island Drought Indices and Phases

Source: Table 724-(2) of the WRB [Rhode Island Drought Management Plan](#).

In developing recommendations on drought phase to the Governor, the WRB will consider the following Indices, in consultation with the U.S. Geological Survey (USGS) and the National Weather Service (NWS). See WRB [Rhode Island Drought Management Plan](#), Sections 04-04 and 04-05.

Drought Phase	Palmer Drought Index +	Crop Moisture Index	Precipitation +	Ground Water** +	Stream flow +	Reservoirs**
NORMAL	-1.0 to -1.99	0.0 to -1.0	Slightly Dry	1 month below normal 1 month below normal	2 consecutive months below normal	Reservoir levels at or near normal for the time of year
ADVISORY	-2.0 to -2.99	-1.0 to -1.9 Abnormally Dry	2 month cumulative below 65% of normal	At least 2 out of 3 months below normal	3 consecutive months below normal	Small index Reservoirs below normal
WATCH	-3.0 to -3.99	-2.0 to -2.9 Excessively Dry	1 of the following criteria met: 3 month cum. <65% or 6 month cum. <70% or 12 month cum. <70%	4-5 consecutive months below normal	At least 4 out of 5 consecutive months below normal	Medium index Reservoirs below normal
WARNING	-4.0 and below	> -2.9 Severely Dry	2 out of 3 of the above criteria met: 3 month cum. <65% and 6 month cum. <65% or 6 month cum. <65% and 12 month cum. <65% or 3 month cum. <65% and 12 month cum. <65%	6-7 consecutive months below normal observation wells recording monthly record lows	At least 6 out of 7 consecutive months below normal	Large index reservoirs below normal
EMERGENCY	-4.0 and below	> -2.9 Severely dry	Same criteria as Warning and Previous month was Warning or Emergency	>7 months below normal Observation wells recording monthly record lows	>7 months below normal	Continuation of previous month's conditions

+ indicates major hydrologic indicators.

** Local triggers from the water system supply management plans will also be considered in assessing drought phases on a regional basis. The WRB will review local plans and work with suppliers to coordinate regarding drought phases and to collect, review and report surface reservoir and ground water data.

"Normal" is defined as the statistical average of the data for the period of record. Percentages for precipitation are relative to normal.