

# Indiana's Water Shortage Plan

Indiana Department of Natural Resources



Garth Lindner  
Division of Water

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## Water Shortage:

A limitation of the water supply resulting from natural phenomenon such as drought and problems of water distribution and use



## Water Shortage Plan – What is it?

- Coordinated multi-agency response to water shortage conditions
- Voluntary conservation to avoid or reduce shortages
- Resources and tools (e.g. model ordinance)
- Priority water uses

<https://www.in.gov/dnr/water/files/watshplan.pdf>



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INDIANA DEPARTMENT OF NATURAL RESOURCES, DIVISION OF WATER



March 20, 2015

## History of Water Shortage Plan

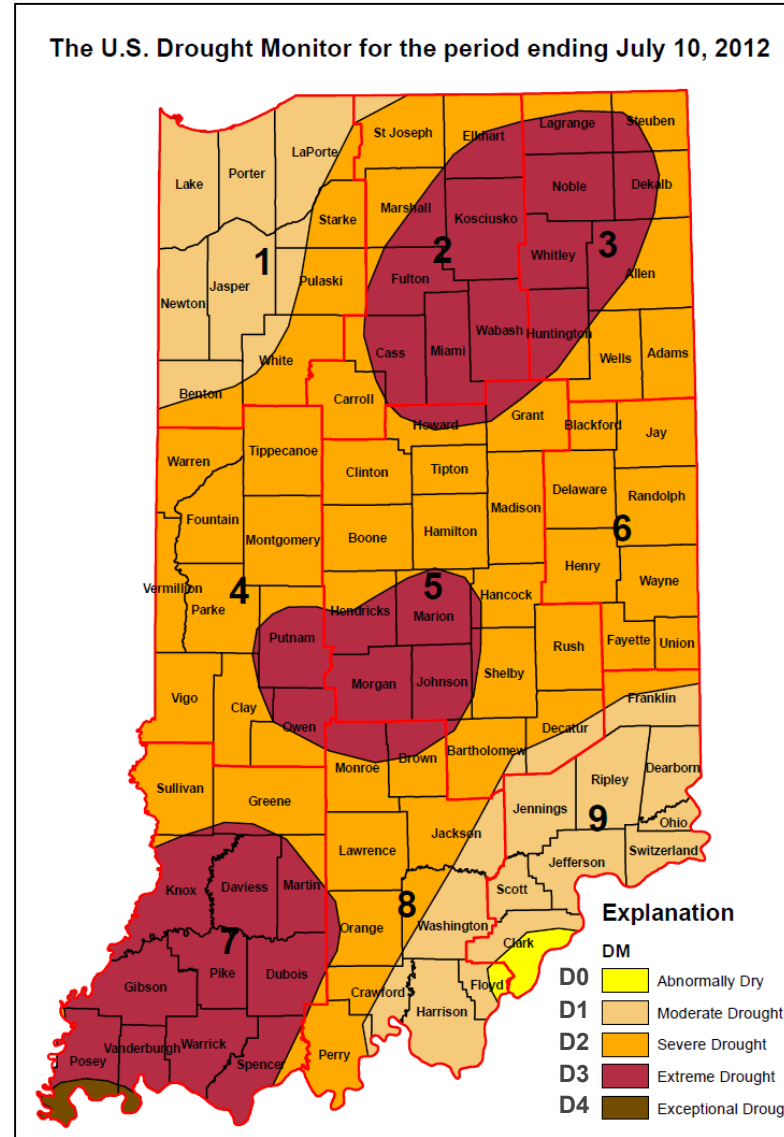
- 1988: Drought focused attention on need for statewide plan to minimize impacts of a water shortage
- 1991: Indiana General Assembly enacted HB 1260 which required DNR to develop Water Shortage Plan
- 1994: Water Shortage Plan completed with input from Industry, Agriculture, Public Water Supplies, Municipalities, Environmental Groups, Government Agencies, etc.
- 2009: SEA No. 369 (IC 14-25-14) Water Shortage Task Force – Update, expand, and revise the 1994 Water Shortage Plan to include a low flow and drought priority use schedule
- 2015: Minor language updates

# Water Shortage Plan Advisory Phases and Conservation Recommendations

- Watch Phase - 5% voluntary conservation
- Warning Phase - 10 to 15% voluntary conservation
- Emergency Phase - 15% conservation (Governor Declaration)

Table 6. Criteria to Identify Drought Conditions and Water Shortage Stages

Water Shortage Stages	1-Month Standardized Precipitation Index	U.S. Drought Monitor (Conditions)	Streamflow As Percentage Of Normal (Average Streamflow)
Normal (White and Yellow)	+0.99 to -0.99	None to D0	Greater than or equal to 25
Watch (Tan)	-1.00 to -1.49	D1	10 to 24
Warning (Orange)	-1.50 to -1.99	D2	6 to 9
Emergency (Red)	-2.00 or less	D3 to D4	5 or less



## Recommended Water Allocation Priorities

- First Priority is for domestic purposes
- Second Priority is for health and safety
- Third Priority is power production with contingency planning provisions
- Fourth Priority is for industry and Agriculture with contingency planning provisions
- Fifth Priority is for Third or Fourth Priority with no contingency planning
- Sixth Priority is for any other purpose



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# Water Shortage Plan Implementation

- Procedures specific to phases
- DNR – Declaration of “Water Shortage Warning” and recommendation of water conservation
- IDEM - Public Water System Status Letter and Public Water System Questionnaire
- DHS – Coordinating and monitoring partner
- USACE – Evaluation of Reservoir Releases
- DNR – Withdrawal of Request for Voluntary Conservation

## *Indiana's Water Shortage Plan*

### *Part VI WATER SHORTAGE IDENTIFICATION PLAN PHASES AND RESTRICTIONS*

#### **D. Phase II: Water Shortage Warning**

##### 1. Objective

The objectives of the warning stage are to prepare for a coordinated response to imminent water shortage conditions and potential water supply problems and to initiate concerted voluntary conservation measures in an effort to avoid or reduce shortages, relieve stressed sources, and if possible forestall the need for mandatory water use restrictions. The objective of water conservation efforts during this stage is a reduction in current water use of 10-15% in the affected area.

October 8, 2010

To: Owners/Operators of Significant Water Withdrawal Facilities

**The Indiana Department of Natural Resources and the Indiana Department of Homeland Security have issued a Water Shortage Warning because of drought conditions for the following counties: Bartholomew, Brown, Clark, Crawford, Dearborn, Decatur, Dubois, Floyd, Franklin, Harrison, Jackson, Jefferson, Jennings, Lawrence, Martin, Monroe, Ohio, Orange, Perry, Ripley, Scott, Shelby, Spencer, Switzerland, Union and Washington.**

The objectives of the Water Shortage Warning stage are to prepare for a coordinated response to imminent water shortage conditions and potential water supply problems and to initiate concerted voluntary conservation measures in an effort to avoid or reduce shortages, relieve stressed sources, and if possible forestall the need for mandatory water use restrictions. A Water Shortage Watch is the lowest or mildest of three drought advisory phases; **a Water Shortage Warning is the second most severe stage**; and a Water Shortage Emergency is the most extreme condition.

**The goal of water conservation efforts during the Water Shortage Warning stage is a voluntary reduction in current water use of 10-15%.** Public water supply systems are advised to immediately develop and update water shortage contingency plans for their respective systems, where such plans are not already available for implementation. Indiana's Water Shortage Plan, located on the Internet at <http://www.in.gov/dnr/water/files/watshplan.pdf>, lists several voluntary water conservation measures and programs for various categories of water users during a Water Shortage Warning, and can be found on pages 16 through 18. Indiana's Water Shortage Plan also includes an "Indiana Suggested Model Ordinance" that was developed by the Water Shortage Task Force to serve as a template for a Local Unit of Government to implement their own specific policies and response for water conservation and restriction within a community. A Word document version of the "Indiana Suggested Model Ordinance" can be found on the Internet at <http://www.in.gov/dnr/3124.htm> under the heading "Additional Links/Information" or directly at [http://www.in.gov/dnr/water/files/Model\\_ordinance\\_Final\\_Draft%207-2-07.doc](http://www.in.gov/dnr/water/files/Model_ordinance_Final_Draft%207-2-07.doc).



## Next steps and concluding thoughts

- Weekly drought calls fulfill many of the Plan objectives
- Some minor updates to the plan –
  - Capture the evolving methods and science
- Implementation plan – DHS and DNR document
- Avoid complacency
  - “Infrequent” and short-lived periods of drought can lead to a limited sense of urgency.
- Multi-agency coordination – a priority practice
  - Multiple agencies with water resources authority

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## INDIANA’S WATER SHORTAGE IMPLEMENTATION GUIDE





# Thank you



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