Drought Monitoring and Response

in South Carolina

Why: To carefully and closely monitor, conserve, and manage the State's water resources in the best interests of all South Carolinians.

Who: Drought Response Committee (DRC) and Department of Natural Resources (SCDNR)- State Climatology Office (SCO)

Statewide members

- Forestry Commission
- Department of Agriculture
- Emergency Management Division
- Department of Health and Environmental Control
- Department of Natural Resources

Local members

- Water Utilites
- Local Governments
- Power Generation Facilities
- Soil and Water Conservation Districts

When and Where:

The State Climatology Office routinely monitors climatic conditions in the State.

The Drought Response Committee meets when needed to evaluate conditions and impacts within four <u>Drought</u> Management Areas.



How: South Carolina uses multiple indicators and indices to monitor drought and determine drought severity levels.



Percent of Normal Rainfall

- Cumulative dryness or wetness compared to long-term averages



Crop Moisture Index

 Agricultural growing season short-term (up to 4 weeks) dryness or wetness



Palmer Drought Severity Index

- Prolonged (month, years) abnormally dry or wet conditions



Streamflow levels



Lake and reservoir levels



Groundwater levels

Water Resources



Keetch-Byram Drought Index

- Daily forest fire potential



US Drought Monitor for SC

- General areas of drought, labeled by intensity on a weekly basis

Conditions and Response: Increasingly severe conditions occur as a drought progresses.

Each drought level initiates a range of responses.

incipien

- Drier than normalSoil moisture declines
- Water demand
- increases

Water utilities

- Water levels decrease

Moderate

- Crops and plants wither
- Irrigation increases
- Irrigation increases

- Water levels continue

- to drop
- Number of wildfires increases
- Poor grazing and
- agricultural conditions

Extreme

 Widespread impacts to agriculture, forestry, water utilities, and water dependent businesses

- SCDNR, SCO and DRC monitor conditions, share information, and make recommendations to manage drought.

State and federal agencies, water utilities, and reservoir managers monitor conditions.

review drought plans and ordinances.

DRC may recommend voluntary or mandatory water conservation.

State agencies increase monitoring and

Water utilities implement drought plans and ordinances

drought conditions and impacts become more severe.

Response actions increase as

communications. Citizens may see local notices for burn bans, boat ramp closings, and water use restrictions. The Governor may request voluntary or mandatory water conservation. The Governor may assist with managing impacts, including requesting disaster declarations by the US Dept. of Agriculture and activating the National Guard to assist with wildfire suppression.



Public safety, health, and welfare are threatened.The State Emergency Response Team (SERT) is activated to lead state-level

- Water systems and citizens are without, or losing access to water.

- response to the water shortage emergency.

"Source Section"







