

Indiana Drought Fact Sheet for: Engineering Practices

2012 Drought Overview

As drought conditions worsen in Indiana, NRCS has developed a plan to communicate information and resources to keep you informed about programs and services that can benefit you.

As of today, Indiana is the worst hit of the major corn and soybean states. Reports from every corner of the state indicate moderate to severe conditions comparable to the 1988 drought. Combined with days of heat stress, crops are quickly showing signs of failure. Areas in the Northeast and Southwest are the hardest hit and are considered severe. A number of areas in the state have received spotty precipitation (mainly in the Northwest and Southeast), but not enough to significantly improve growing conditions. Some of these areas where rain has fallen have also received high wind and hail damage.

State Office Contact:
Mike Cox
State Conservation Engineer

6013 Lakeside Blvd.
Indianapolis, IN 46782

317-295-5853

mike.cox@in.usda.gov

Local Office Contact
Visit Indiana NRCS' website at:

[http://www.in.nrcs.usda.gov/
contact/index.html](http://www.in.nrcs.usda.gov/contact/index.html)

Compaction

With the present drought conditions in many parts of the state, the minimum moisture requirements for proper soil compaction listed in the NRCS Construction Specifications, specifically the Earthfill and Plastic Pipe Specifications (applies to all pipe types), are important considerations if installing engineering practices.

- Earthfill Specification: The fill material shall have a moisture content sufficient to secure compaction. When kneaded in the hand, it will form a ball which does not readily separate when struck sharply with a pencil and will not extrude out of the hand when squeezed tightly.
- Plastic Pipe Specification: The water content of cohesive backfill material shall be such that, kneaded in the hand, the soil will form a ball which does not readily separate. For non-cohesive sand and gravel backfill material, water content is not a concern for thin lifts.

A copy of all the Indiana NRCS Construction Specifications can be found at:
<http://www.in.nrcs.usda.gov/technical/engineering/ConsSpecifications.html>.

If these minimum moisture requirements cannot be presently met by the landowner or contractor with natural soil moisture, NRCS advises to stop construction. If the landowner and contractor want to proceed with construction, NRCS will require a watering plan to be submitted which includes the source of the water, estimated quantity of water available and equipment available to transport/spread water. It is important to remember that no amount of compactive effort is a substitute for the proper moisture content in the soil when trying to properly compact soil.

Some of the most common types of practices which will be impacted due to poor compaction are pond dams, wetland levees, grade stabilization structures (backfill and levees), fill areas in grassed waterways, and water and sediment control basins. There are some types of practices such as macro-topography for wetlands (excavation), which may be easier to construct during a drought due to the drier soil conditions.

Grassed Waterway Construction

Grassed waterway construction is greatly discouraged due to the current dry conditions. The Indiana NRCS Seeding Certification Policy in the General Manual supplement (link below) does contain provisions to evaluate the success of seeding this summer during the next seeding period identified by IN NRCS and proceed with payment if the vegetation established meets requirements in the supplement. The landowner is responsible for re-construction and re-planting if seeded outside of IN NRCS approved seeding dates. [http://www.in.nrcs.usda.gov/intranet/
GMSupplements/GM_180-Part_481_IN4_\(Seeding%20Certification%20Policy\)04_08.pdf](http://www.in.nrcs.usda.gov/intranet/GMSupplements/GM_180-Part_481_IN4_(Seeding%20Certification%20Policy)04_08.pdf)

The current seeding date is on or after August 1 to September 30 for grassed waterways, but this date may be evaluated and pushed later in the year depending on current moisture conditions for germination on August 1st.

Above Ground Pipelines

Above ground pipelines are allowed in accordance with the Pipeline Standard (516). Any pipeline installed above ground shall be resistant to ultraviolet (UV) light throughout the intended life of the pipe or protected from UV light. Valves should be located and utilized to drain the pipe to protect the pipe from freezing conditions. Any portable tank utilized for a livestock watering facility shall be resistant to UV light. The pipeline pumping capacity and watering tanks combined should be designed to provide the minimum water requirements (30 gal/day per Animal Unit) based on the site topography. A backflow prevention device shall be included on facilities connected to wells, domestic or municipal water systems.