

## IN-TIPPECANOE

Wetland

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### SITE SUMMARY

The research is conducted at Purdue University's Agronomy Center for Research and Education, at a site known as the Oaks' Woods Wetland. The wetland receives drain flow from 69 ha of agricultural fields, treating it before it flows out through a ditch that flows under US 52 to the south. There is also some groundwater that contributes to the inflow into this wetland. Water quality and drain flow have been monitored at two inlets to the wetland (Inlet A and Inlet B) as well as the outlet for 10 years. Water table, soil moisture, and soil properties have also been monitored.

Water samples were taken at two inlets to the wetland as well as at the outlet.

- Inlet A drains 58 ha with 16 different fields (all free drainage, corn and soybeans)
- Inlet B drains 11 ha with 6 different fields (all free drainage, corn and soybeans)

Soil property measurements were taken in 8 fields, soil moisture in 4 fields, and water table in 1 field (Field 63)



Figure 1. Water monitoring equipment at IN-TIPPECANOE.

### Box 1. Site info

#### CHARACTERISTICS

- Predominant Soils: Chalmers silty clay loam, Raub silt loam, Brenton silt loam
- Rotation: Corn-Soybean

#### WATER MANAGEMENT PRACTICES

- Conventional Drainage (depth 3 feet, spacing 65 feet)

#### MEASUREMENTS IN DATABASE DRAINAGE SYSTEM

- Inlet and outlet flow, nitrate-N and ammonia-N concentration, and nitrate-N load (2007-2018)
- Ortho-phosphorus (filtered) concentration (2016-2018)
- Ortho-phosphorus (unfiltered) concentration (2007-2016)
- Water table depth (Field 63: 2017-2018)

#### CROP

- Planting and harvest dates, fertilization records (2007-2018)

#### SOIL

- Soil moisture and temperature (Fields 41 and 8: 2011-2015; Field 67: 2011-2012, Field 63: 2017-2018)
- Soil Fertility: pH, lime index, CEC, base saturation and amount, soil phosphorus concentration (Fields 44, 62, 65, 66, 67, 68, 21-E, 9-D: 2015)

#### WEATHER

- Precipitation, Air Temperature, Relative Humidity, Solar Radiation, Wind Speed (1996-2018)



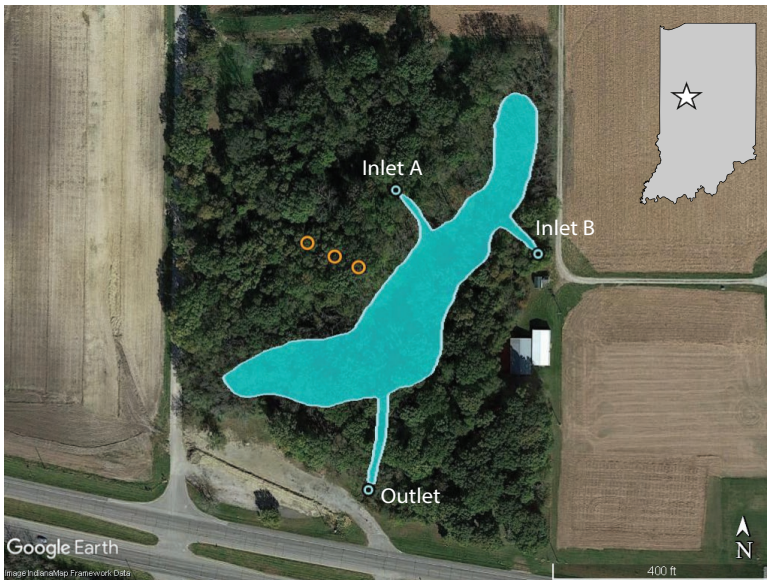


Figure 2. Map of wetland area at IN-TIPPECANOE.



Figure 3. Map of tile drainage network at IN-TIPPECANOE.

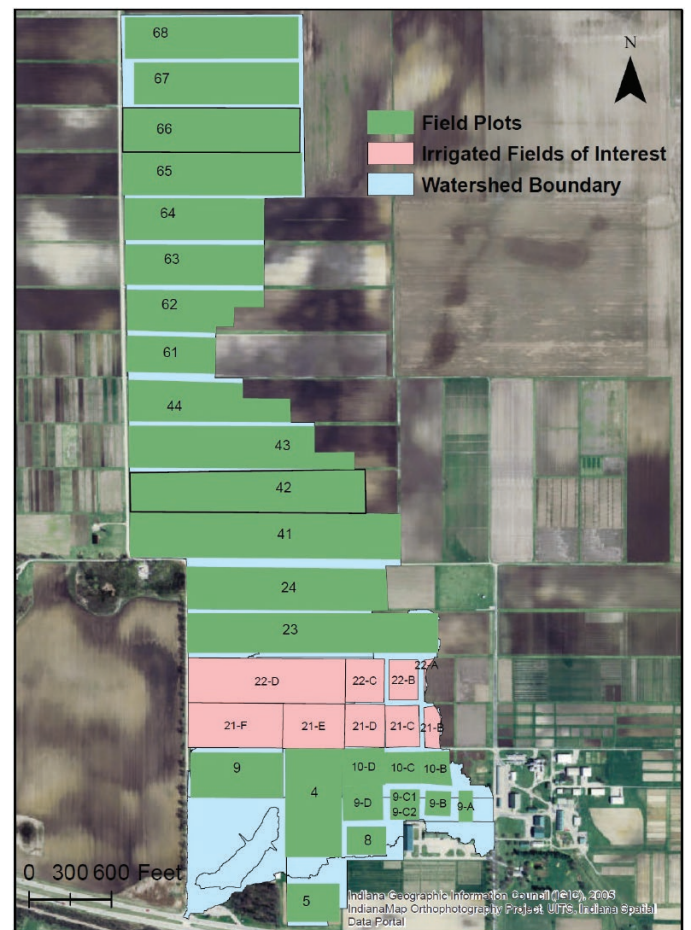


Figure 4. Map of field areas at IN-TIPPECANOE.

## Data Access

Data from this site are available through the USDA National Ag Library Ag Data Commons repository (<https://doi.org/10.15482/USDA.ADC/1521092>) or the interactive website at Iowa State University with visualization and querying capabilities (<https://drainagedata.org>).

## ACKNOWLEDGEMENTS

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