# how E. COLI impacts 4042 LAKE



#### **THREAT**

E.coli is a bacterium that plays a role in several harmful diseases. More than 77,000 residents and thousands of vacationers rely on local water. Yet, the county's waterways could produce hidden health risks. The high E.coli levels in Koscisko County are unacceptable.

#### **PURPOSE**

This study investigates the cause of elevated *E.coli* levels at the public swimming areas on Pike and Center lakes, and provides recommendations to lower them.

#### **FOCUS**



Water samples were tested for humans, dog, goose, duck and gull DNA. Only gull came back positive.



There were 70% more birds at Center Lake, but they didn't have an impact on overall E.Coli levels.



Center Lake had over twice the amount of swimming activity as Pike Lake. Swimming was not strongly correlated to E.Coli.



Surface area: 120 acres
Watershed: 9,611 acres
Max depth: 42 feet
Lake bottom: gravel, sand & muck

Testing sites C1-C6

### Pike Lake

Surface area: 230 acres Watershed: 25,700 acres Max depth: 35 feet Lake bottom: muck, marl & clay



## E. COLI Center & Pike Lakes

376 MPN

**265 MPN** 

**P2** 254 MPN

306 MPN

**283 MPN** 

**P5** 208 MPN

C6 212 MPN

P6 252 MPN

E.Coli levels become dangerous at 235 MPN/100 ml or above.



