

# NIP Language in the DRSCW Special Condition

- ❖ The Permittee shall submit a NIP for the DRSCW watersheds that identifies ***phosphorus input reductions*** by point source discharges, non-point source discharges and other measures necessary to remove DO and offensive condition impairments and meet the applicable dissolved oxygen criteria in 35 IL Adm. Code 302.206 and the narrative offensive aquatic algae criteria in 35 IL Adm. Code 302.203.
- ❖ Include a schedule for implementation of the phosphorus input reductions and other measures.
- ❖ May work cooperatively with the DRSCW to prepare a single NIP that is common among DRSCW permittees.
- ❖ Due by December 31, 2023

# DRSCW NIP Components

- ❖ **Nutrient Trading Program**
- ❖ QUAL 2K updates for the East Branch and Salt Creek
- ❖ **NPS Feasibility Analysis**
- ❖ **Identification and Prioritization System (IPS)**
- ❖ **Chloride Reduction**
- ❖ **Additional Monitoring**
- ❖ More (to be determined)

# POTW to POTW Trading Evaluation

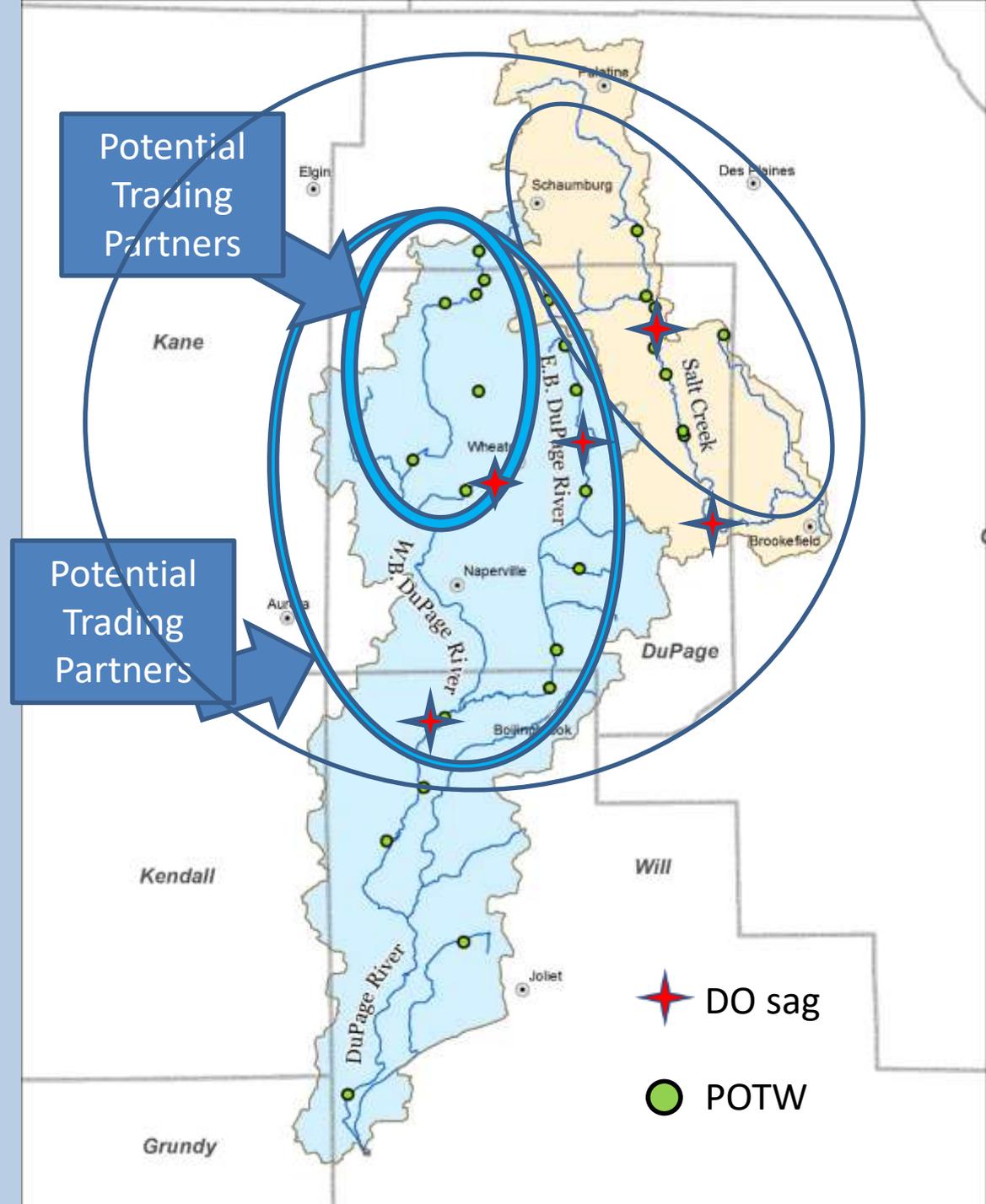
Compile and analyze POTW characterization and cost data to determine if there are “buyers” and “sellers

## Approach

- Evaluation of PDOPs and Feasibility Studies
  - 1.0 mg/L, 0.5 mg/L, and 0.1 mg/L TP
- Analysis of checklists for POTWs with PDOPs and Feasibility Studies in development
- Estimate treatment costs
- Calculate cost differentials for at each treatment level to determine supply and demand

# Geographic Trading Boundary Considerations

- Goal: Select geographic trading boundaries using best available data to avoid localized hot spots
- Options to consider
  - Basin-wide
  - Watershed
  - Based on location of DO sags
- Conduct boundary analysis coupled with baseline analysis



# Baseline Analysis

- Baselines are the benchmarks for trading
  - Credits are generated when discharges are reduced below the baseline
  - Credit shortfalls are created when a discharge is above baseline
- Permit language is clear about 1 mg/L baseline
- Considerations for future approval
  - Technology or practice-based
  - Performance based
  - Standard water quality contribution



# Point Source to Stream Restoration Practices

- Not your traditional approach to PS-NPS Trading
- Trading using
  - Bed and bank stabilization
  - Riparian buffers
  - In-stream enhancements
  - Floodplain reconnection

**DRSCW projects include all 4 stream restoration components.**

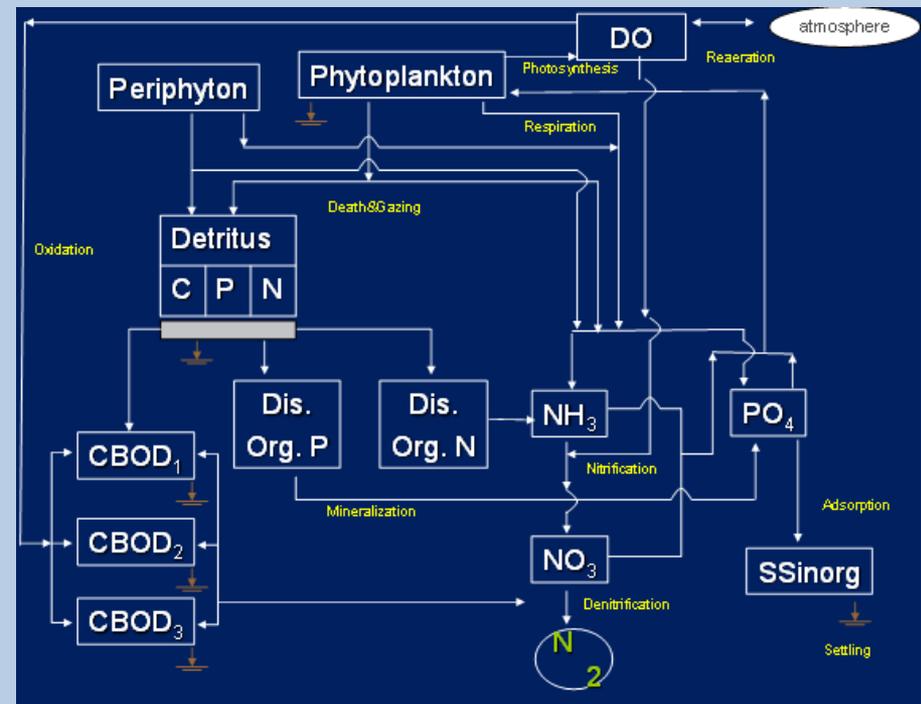


# Traditional Crediting Approach

1. Quantify practice removal rates
2. Quantify site-specific existing water and/or sediment phosphorus concentration
3. Calculate phosphorus load reduction
4. Apply a safety factor to yield final credit

# Going Beyond Traditional Crediting

- In-stream nutrient processing
- Nutrient processing in the hypohelic zones
- Fish and macroinvertebrate IBI improvements



# Non-Point Source Feasibility Analysis

- To identify and quantify nutrient inputs from non-point sources
- Tasks to be completed
  - Assess NPS reductions from leaf litter and street sweeping
    - Funding support of USGS study
  - **Development and calibration of a NPS model (model TBD)**
  - Identification and prioritization of projects



# Additional Monitoring

- Additional data is needed to assess nuisance algae impairments
  - Qualitative assessments
    - Photos
    - Visual inspections
  - Quantitative assessment
    - Sestonic chlorophyll A
    - Benthic chlorophyll A
    - DO
    - Nutrients
    - Stream cover
- More to be identified?