



ILLINOIS TOLLWAY STORMWATER EFFORTS

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MAJOR WATERSHEDS

Great Lakes/Calumet River

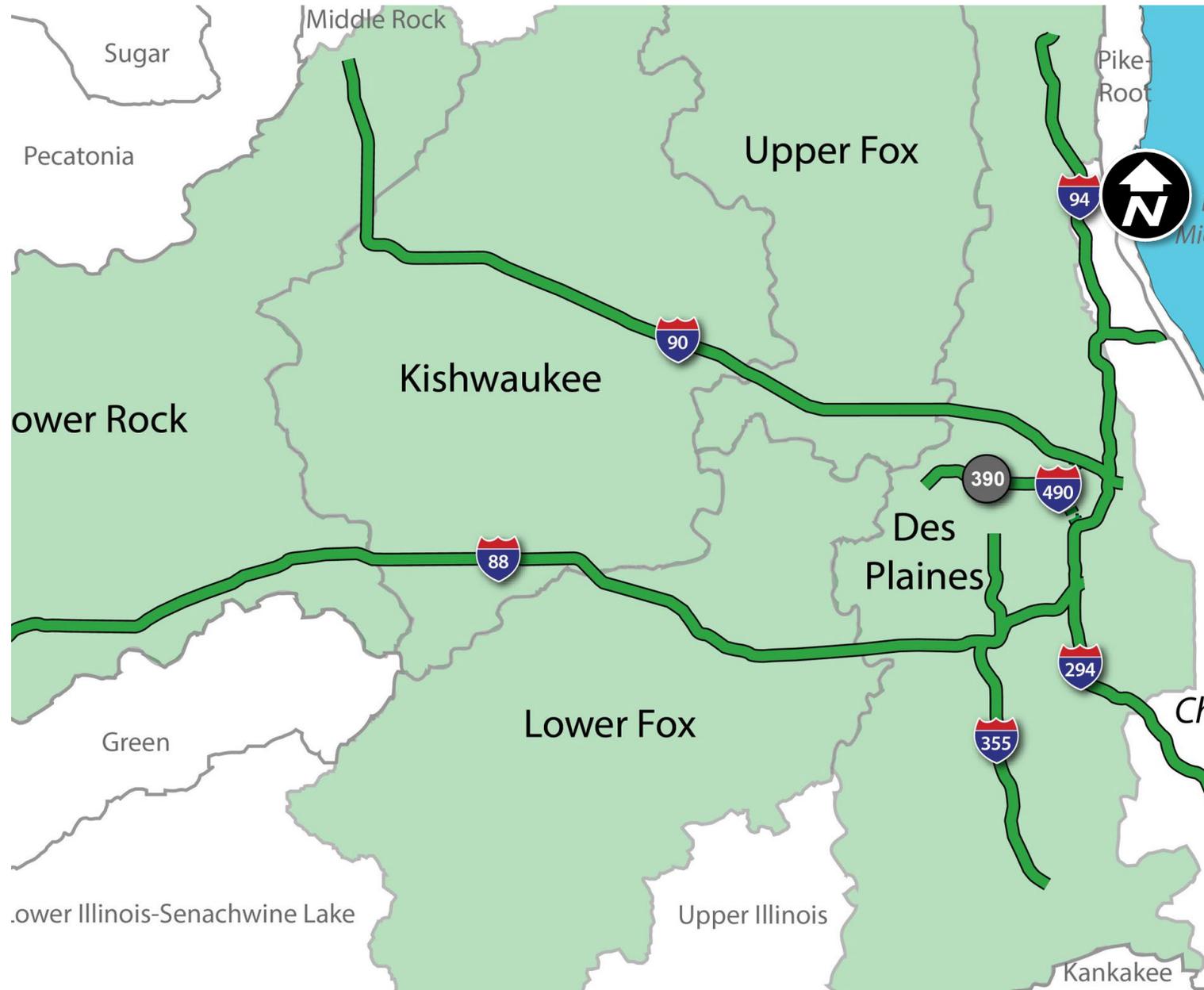
Des Plaines River

Upper Fox River

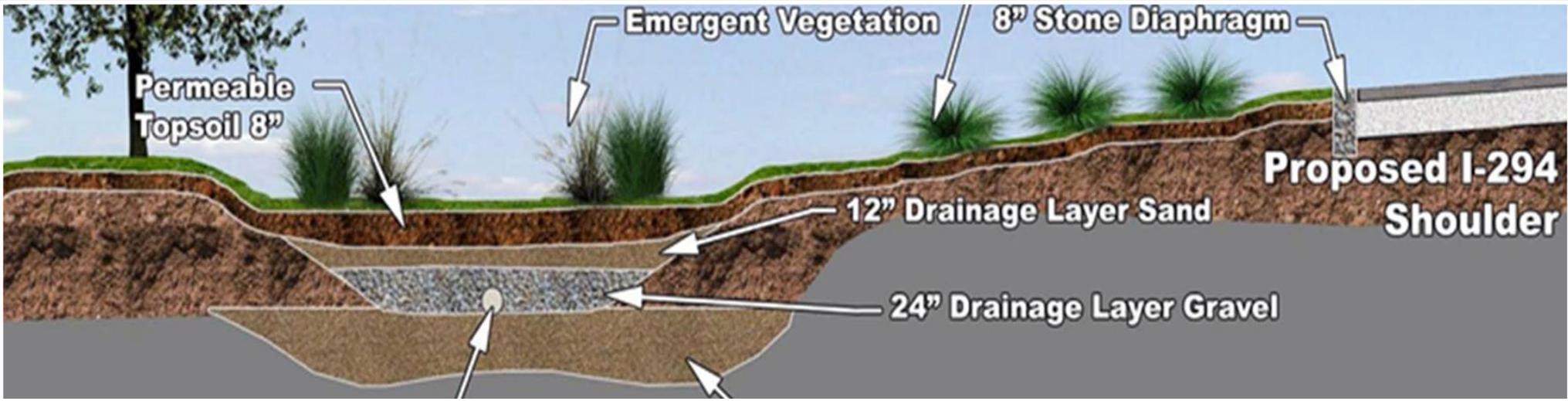
Lower Fox River

Kishwaukee River

Rock River



BIOSWALES



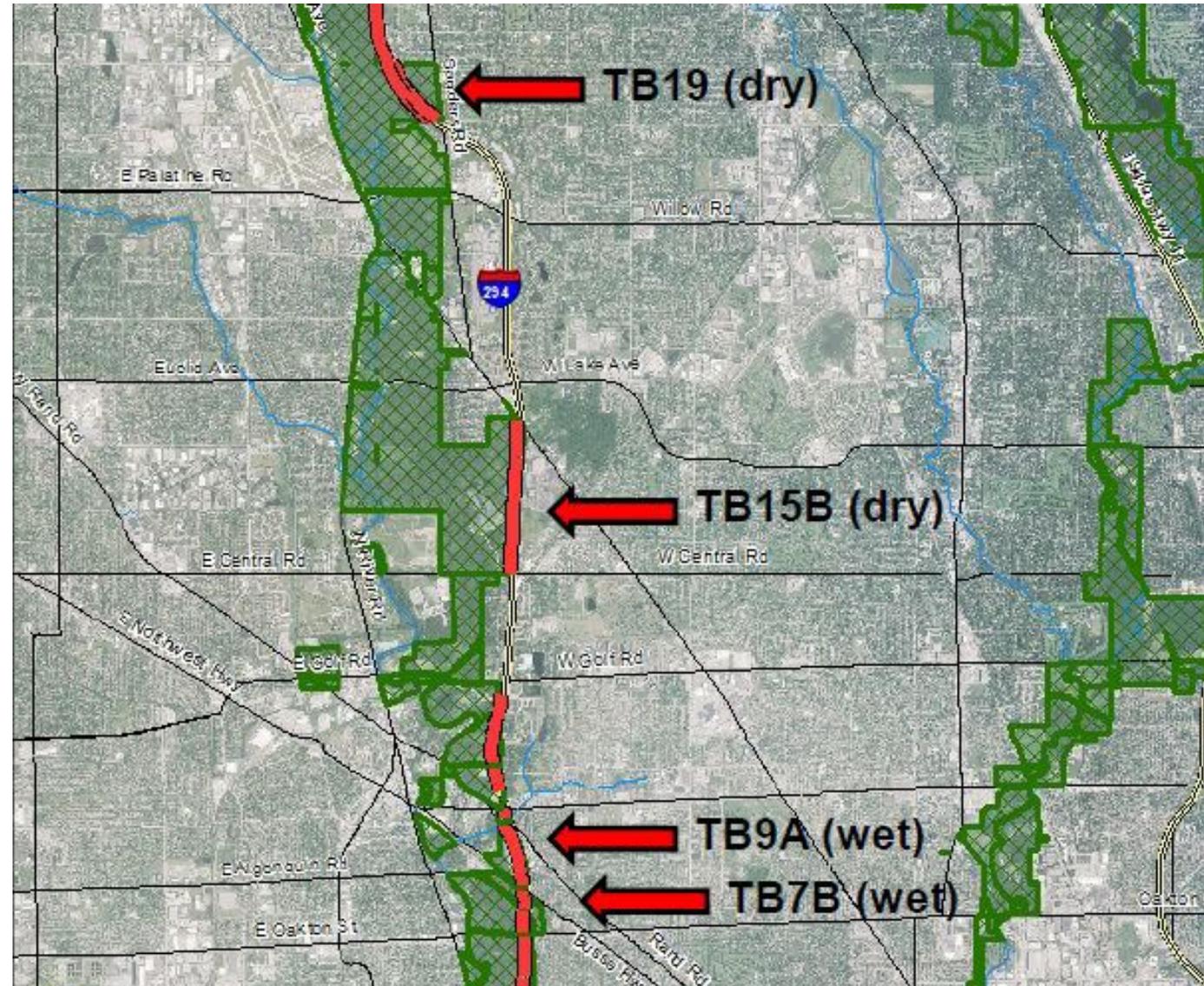
NORTH TRI-STATE TOLLWAY (I-94) BIOSWALE PILOT

In 2010, the Tollway constructed its first largescale bioswale project

Partnership with the Forest Preserves of Cook County

- Land along right-of-way could be used for stormwater BMPs
- Nearly two dozen bioswales installed along 17 miles

Provided an effective BMP with proven results that could be replicated for future projects



BIOSWALE PERFORMANCE

Illinois State Geologic Survey Sampling

- Initial 10-year commitment to monitor and ensure functionality was made
- Long-term environmental investment has led to the evolution of bioswale design for other areas along the Tollway

Results

- 63 percent decrease in TSS
- 42 percent decrease in TDS
- 44 percent decrease in chloride
- 36-81 percent decrease of roadway metals



WATER QUALITY GOALS PER CORRIDOR PROJECT

Using volume control to address stormwater quality

Jane Addams Memorial Tollway (I-90) Rebuilding and Widening Project

- Capture first 0.75 inches of rainfall

Illinois Route 390 Tollway/I-490 Tollway Project

- Capture first 1.25 inches of rainfall (by watershed)
- Additional FAA requirements

Central Tri-State Tollway (I-294) Project

- Capture first 1 inch of rainfall
- Systemwide Salt Use Reduction Program



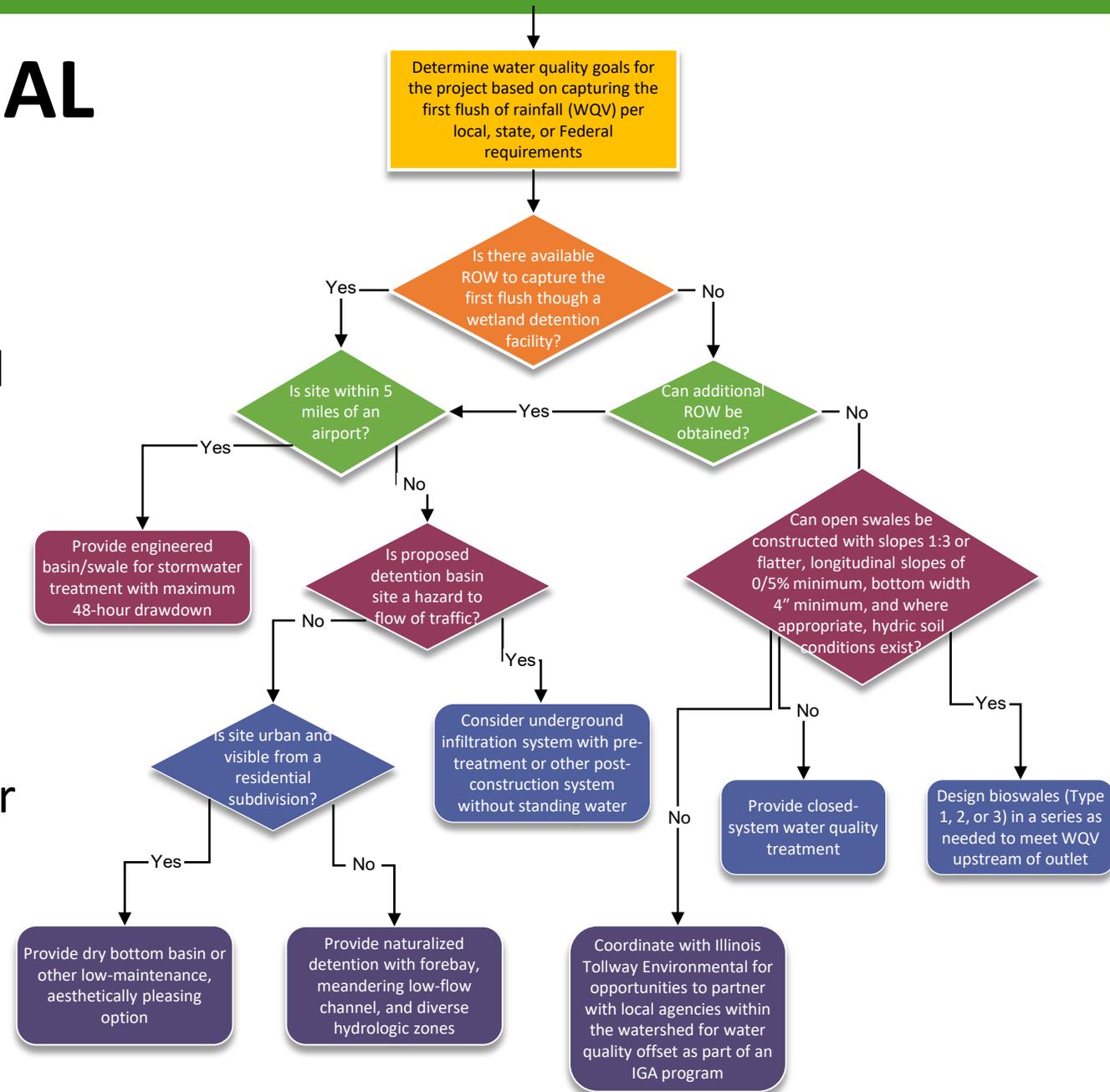
DRAINAGE DESIGN MANUAL

BMP decision flowchart

- Set project water quality goals
- Use BMPs to collectively accomplish goal

BMP types

- Dry bottom basins
- Naturalized detention with diverse hydrologic zones
- Underground infiltration systems
- Engineered basin with maximum 48-hour drawdown
- Bioswales (wet or dry)
- Closed-system water quality treatment



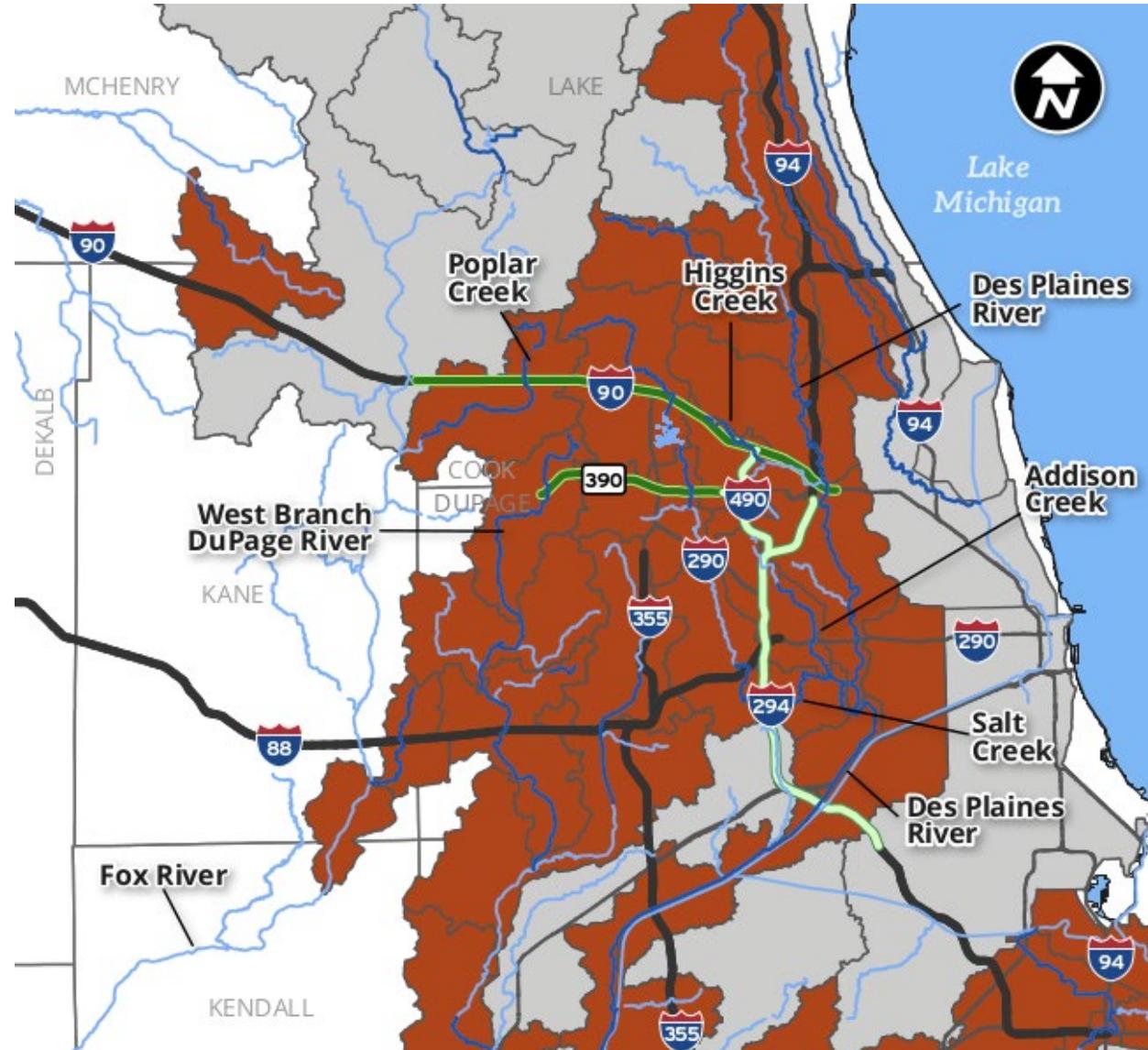
REDEFINE SALT STRATEGY: PROJECT MOTIVATION

Move Illinois Program includes new corridors

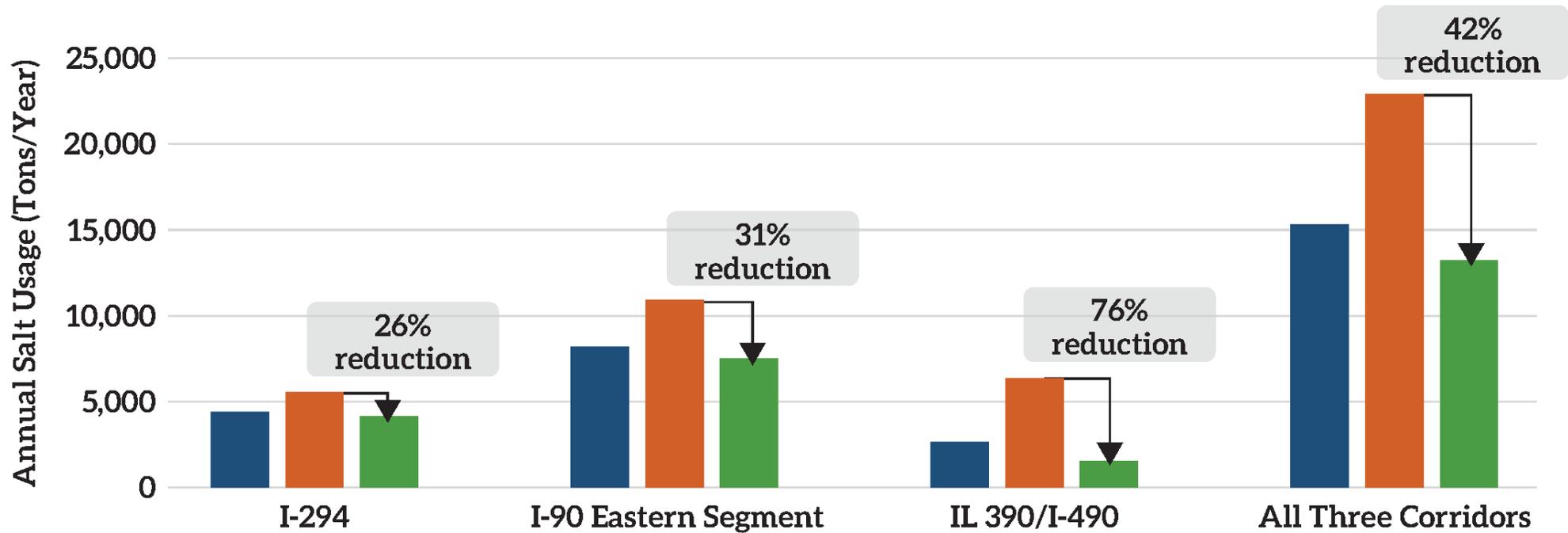
- Illinois Route 390/I-490 Tollways
- Eastern Jane Addams Memorial Tollway (I-90)
- Central Tri-State Tollway (I-294)

Each project requires a 401 Water Quality Certification (WQC)

Required to reduce salt usage to offset increased lane miles



SALT REDUCTION REQUIREMENTS BY PROJECT



Annual average salt usage prior to project construction

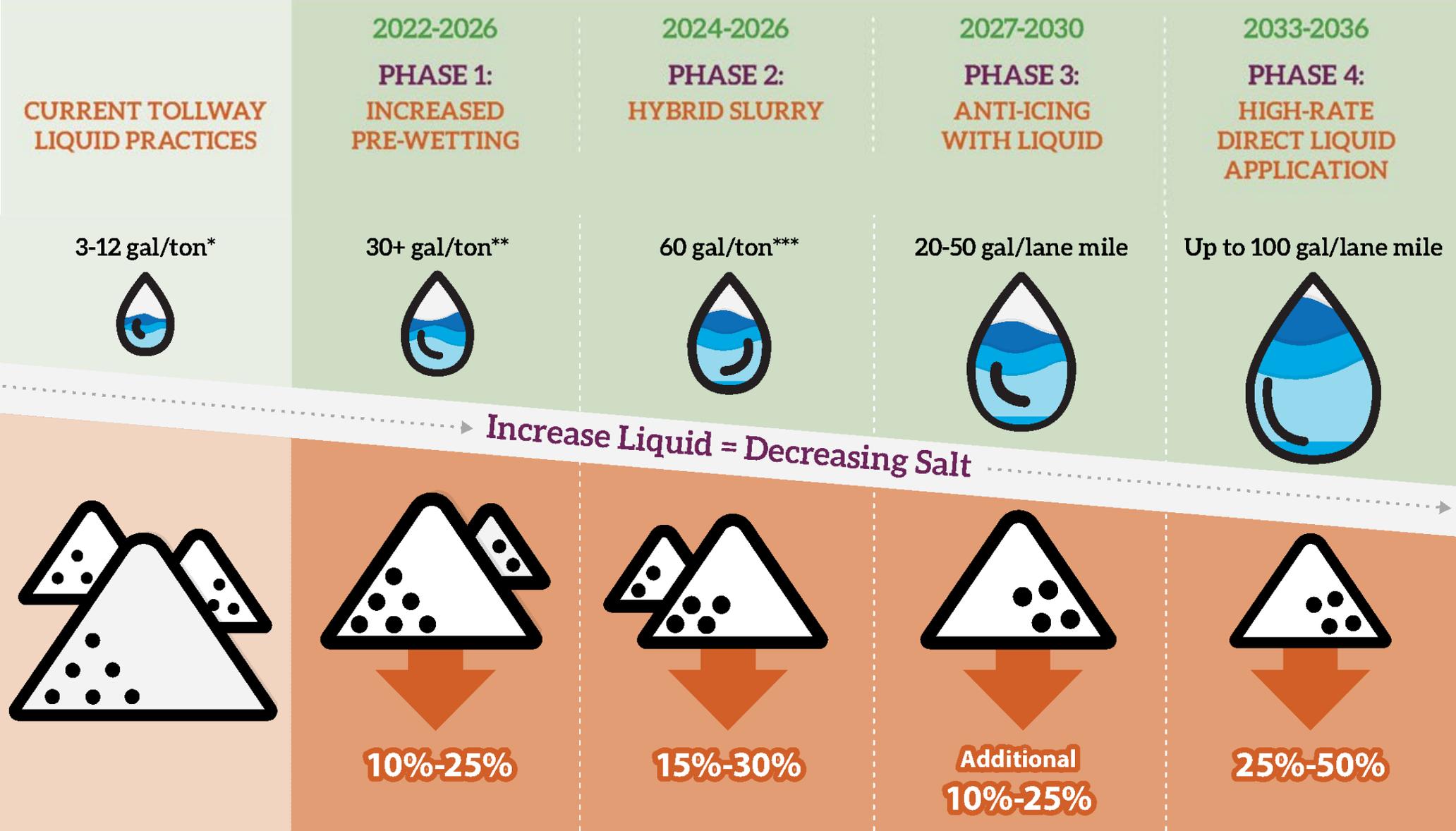


Estimated annual salt usage after construction (no salt reduction)



Allowable salt usage, post-construction
No net increase + 25% margin of safety

CORE STRATEGY: INCREASING LIQUID USE





THANK YOU