

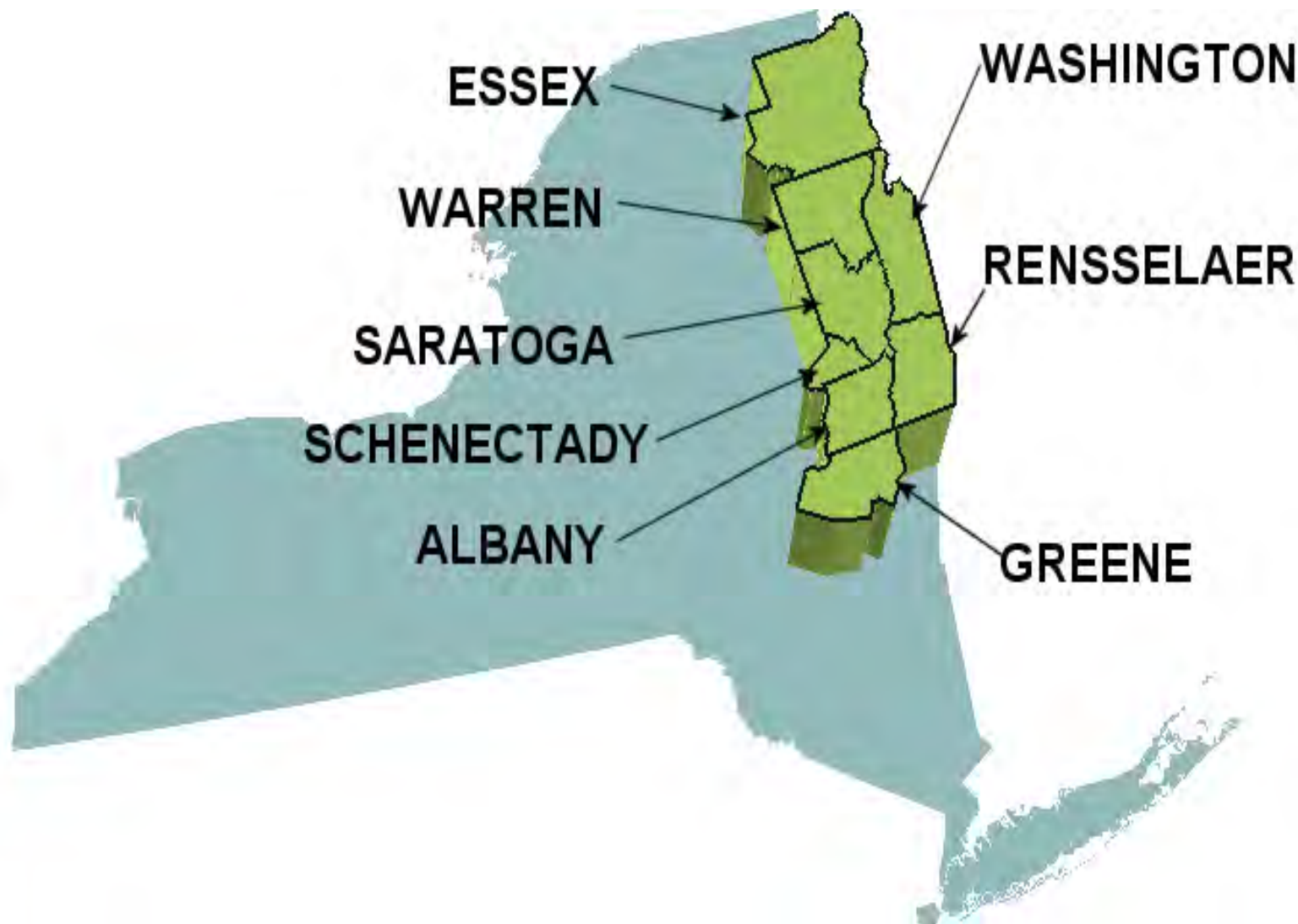


**Department of  
Transportation**

# **Cold Recycled Asphalt Interlayer for Low Traffic Volume PCC Pavement Rehab Route 4 – Saratoga County**

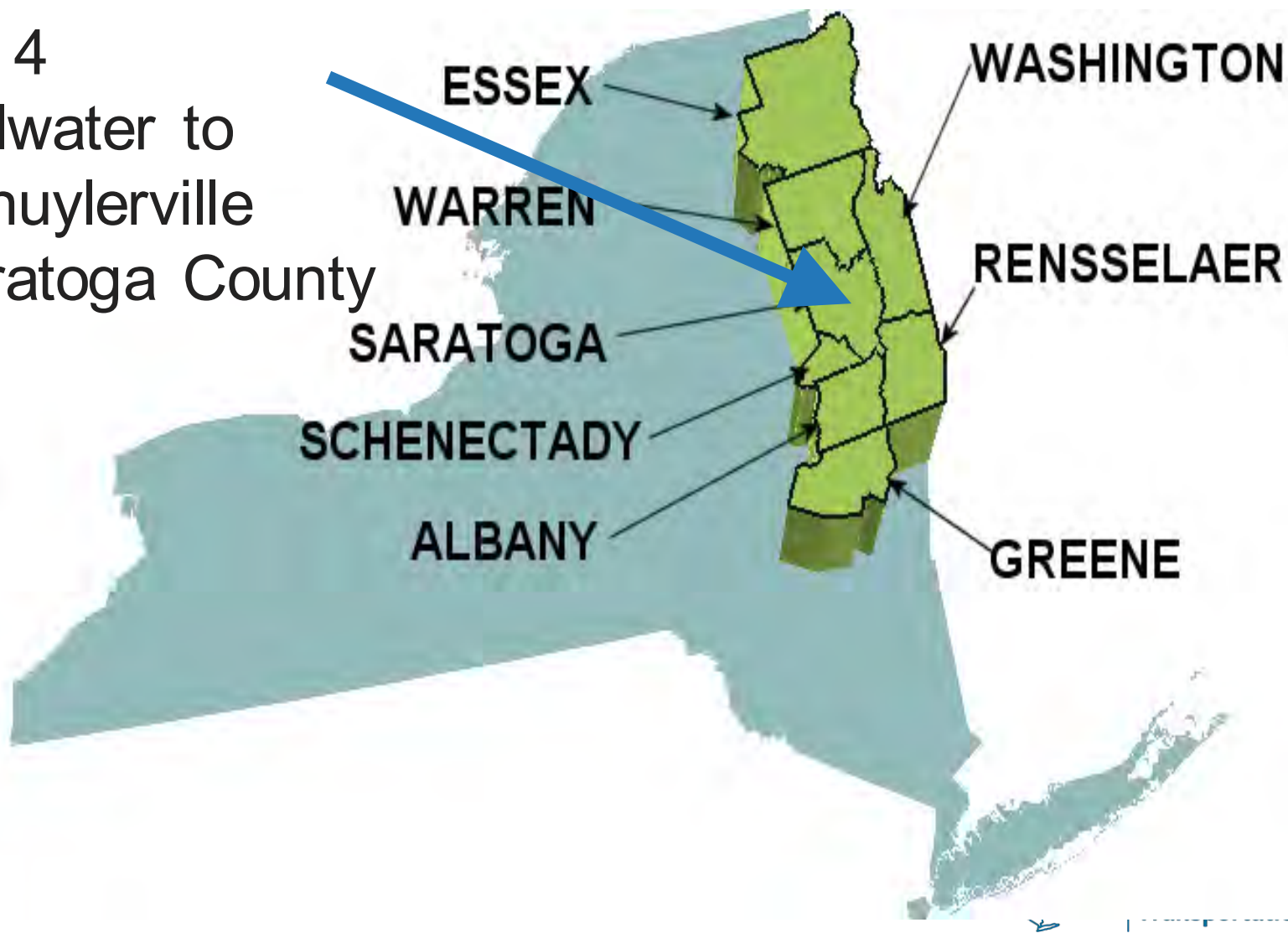
**Greg Wichser, P.E.**  
**Regional Capital Program Manager**  
**NYSDOT Region 1 (Capital Region)**  
**Tuesday, November 1, 2022**

# Region 1



# Project Location

- ➔ Route 4
  - ➔ Stillwater to Schuylerville
  - ➔ Saratoga County



# Route 4 Condition

- ➔ Portland Cement Concrete with Flexible Shoulders
- ➔ Year of Last Work - 1957
- ➔ Rated a 5 – Poor
  - As far back as 1981
- ➔ Severe Faulting
- ➔ IRI over 300 (Terrible)
- ➔ Grass Growing out of Centerline
- ➔ Shoulders Heaved over time, Plowed off, Gravel Shoulders in Spots
- ➔ Recurring Flooding
- ➔ AADT – 2,300
- ➔ Segment 6.4 Miles Long

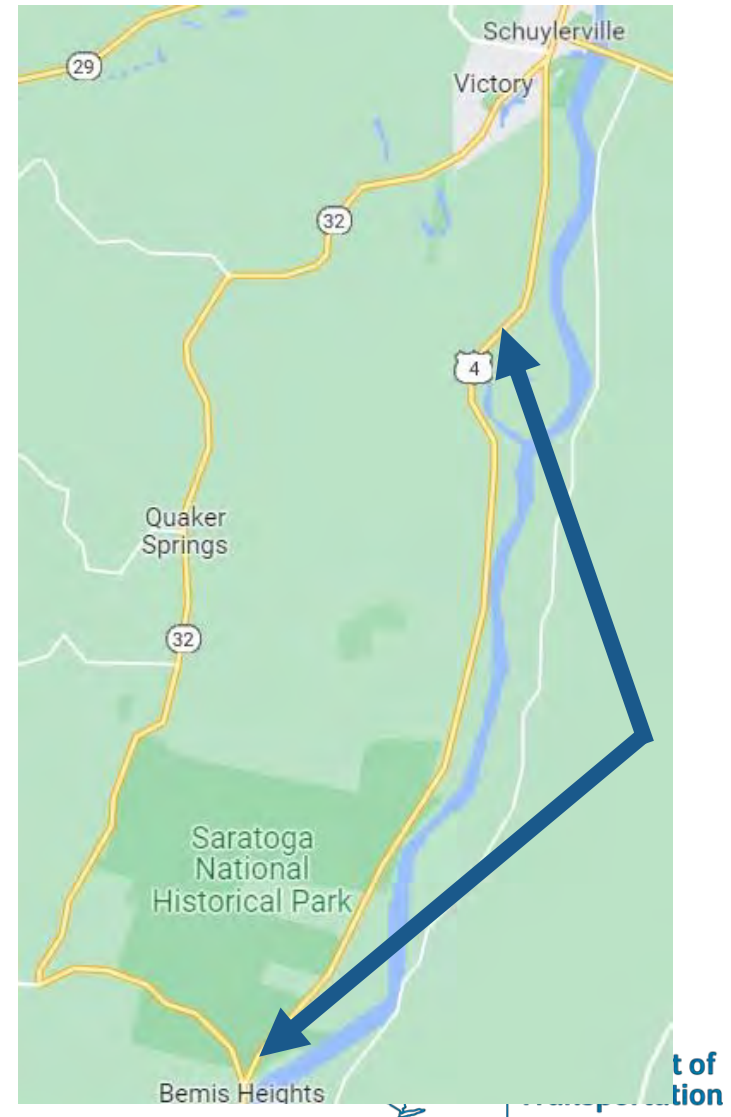


# Pavement Treatment Recommendation

- ➔ Major Rehabilitation
  - ❑ Crack and Seat with Multi-course Overlay
    - Drainage, Geometry, Roadside Improvements
  - ❑ 2R or 3R Design Standards
  - ❑ \$750,000 - \$1,000,000 per Lane Mile
  - ❑ \$12,800,000 +/- Construction Cost
    - Region 1 Letting Program in 2013 - \$100,000,000

# Other Challenges to Major Scope

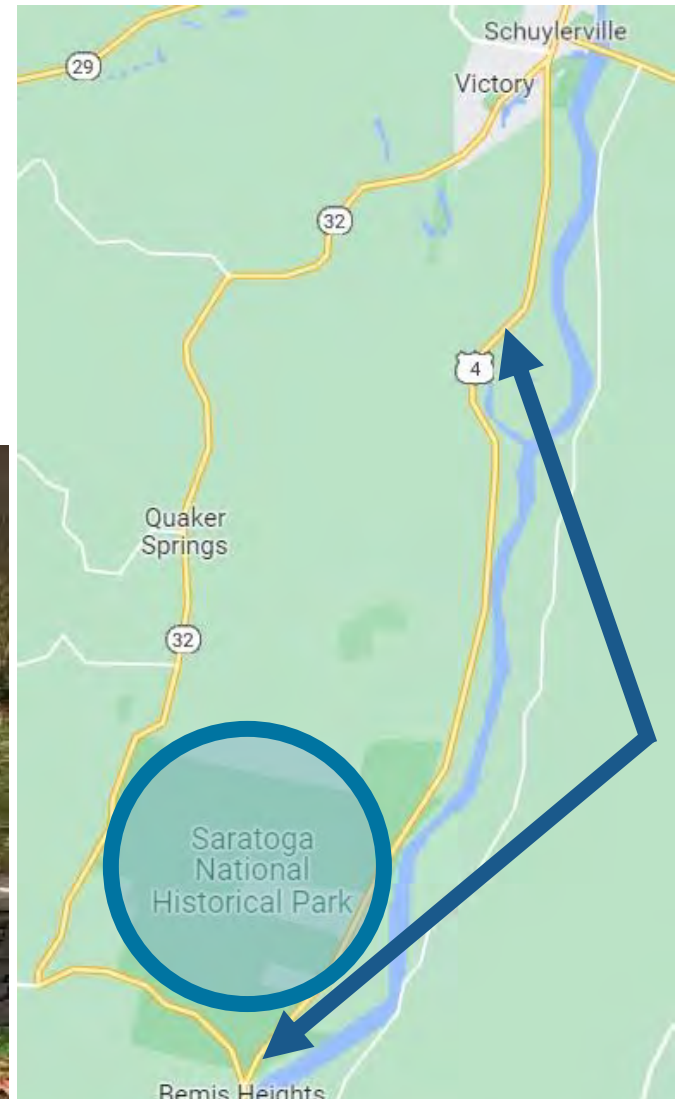
## ➔ Project Limits





# Other Challenges to Major Scope

- ➔ Project Limits
- ➔ Saratoga Battlefield



# Other Challenges to Major Scope

- ➔ Project Limits
- ➔ Saratoga Battlefield
- ➔ Current Champlain Canal





# Other Challenges to Major Scope



# Other Challenges to Major Scope

- ➔ Project Limits
- ➔ Saratoga Battlefield
- ➔ Current Champlain Canal
- ➔ Former Champlain Canal – Vintage 1820's





# Old Canal - Flooding Issues





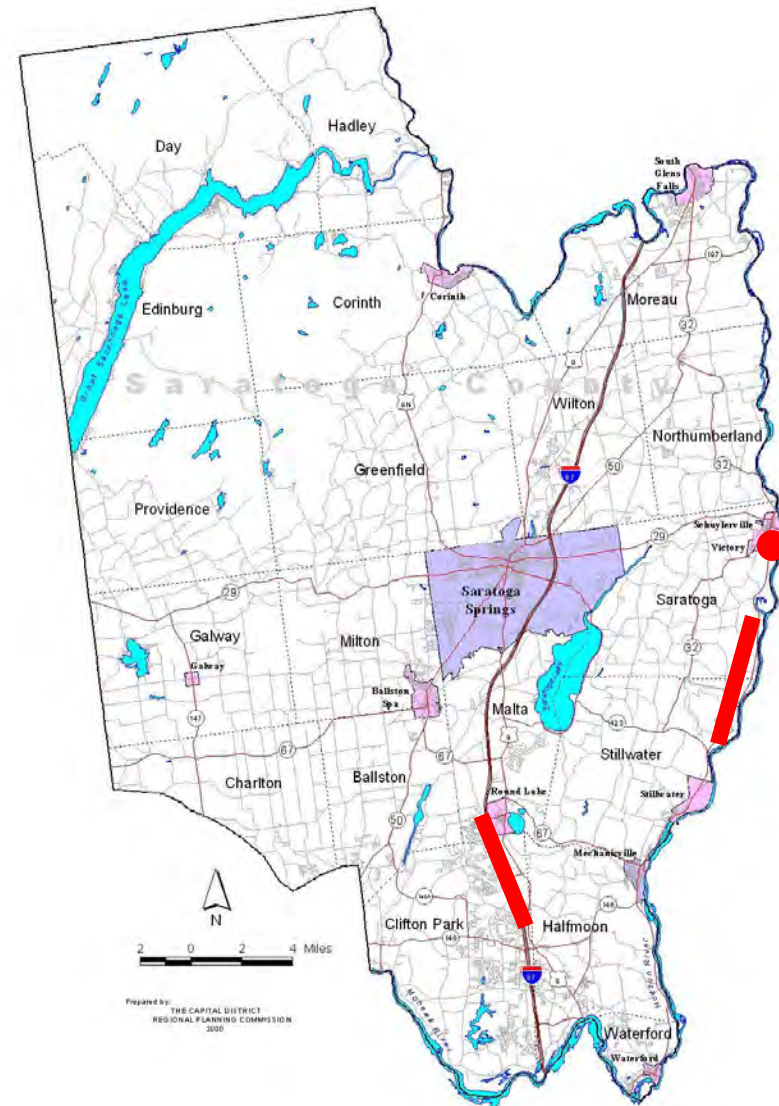
# What to do?

- ➔ Null Alternative?
  - ❑ Defacto for Decades
    - ➔ Major Rehab
      - ❑ Riddled with issues
- ➔ Single Course Overlay?
  - ❑ Life Cycle
- ➔ Cold Recycling?
  - ❑ Nothing to Recycle



# Shopping for Millings

- ➔ I-87 Mill and Fill Project
- ❑ 2012 Construction
- ➔ Schuylerville DOT Yard
- ❑ 2.5 Miles from Route 4 Segment
- ➔ ~20 Miles Haul
- ➔ 36,000 Tons





# Portable Batch Plant



# Portable Batch Plant





# Cold Recycle Mix Paving





# Cold Recycle Mix Paving



# Construction Issues

- Travel Time
  - Workability –  
    Dragging
- Stability
  - Unconfined Edge
  - 4” Single Lift –
    - Too Thick
  - Cross Slope





# Construction Issues

- Travel Time
  - Workability – Dragging
- Stability
  - Unconfined Edge
  - 4” Single Lift –
    - Too Thick
  - Cross Slope
- Pavement Width
  - 20’ Lane + Shoulder



# Going Smoothly



- Until....



# Post Construction

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- \$2,250,000 Cost
- \$175,000/LM



# Post Construction

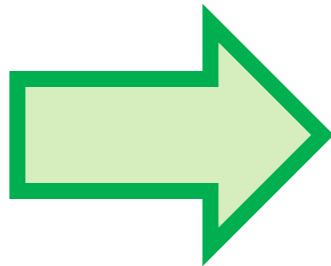
- Pavement Score
- Rideability Improvement



IRI Scale (in/mi)	Description
$\leq 60$	Very Smooth
61 – 120	Smooth
121 – 170	Fair
171 – 220	Rough
$\geq 220$	Very Rough

# Post Construction

- Pavement Score
- Rideability Improvement



IRI Scale (in/mi)	Description
$\leq 60$	Very Smooth
61 – 120	Smooth
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$\geq 220$	Very Rough



# 9 Years Later



- Rated 7 (Good)
- IRI 100-120

# Questions

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