

- Chlorophyll concentrations are variable  
Temporally, Spatially, Flow dependent, and Climate dependent
- Chlorophyll concentrations are not precise.
- River Reservoirs are not natural lakes and reservoirs typically have upstream to downstream concentration gradients.
- Coves, Arms, or tributaries of reservoirs can both receive from and contribute to the mainstem depending on flow, dam operations, morphology and hydrology.

- AU's ideally are related to limnology or geomorphology segments
- AU's ideally do not change based on variable chlorophyll concentrations
- AU's ideally can be related to management strategies
- Monitoring Stations should be representative of the AU
- All Stations within an AU should contribute to the Category decision
- AU decisions do not have to be permanent the Falls Model re-examination can help to educate these decision once completed.

# Assessment Categories

*Integrated  
Report  
Categories*

**1** Meeting criteria

---

**3** Uncertain confidence <90%

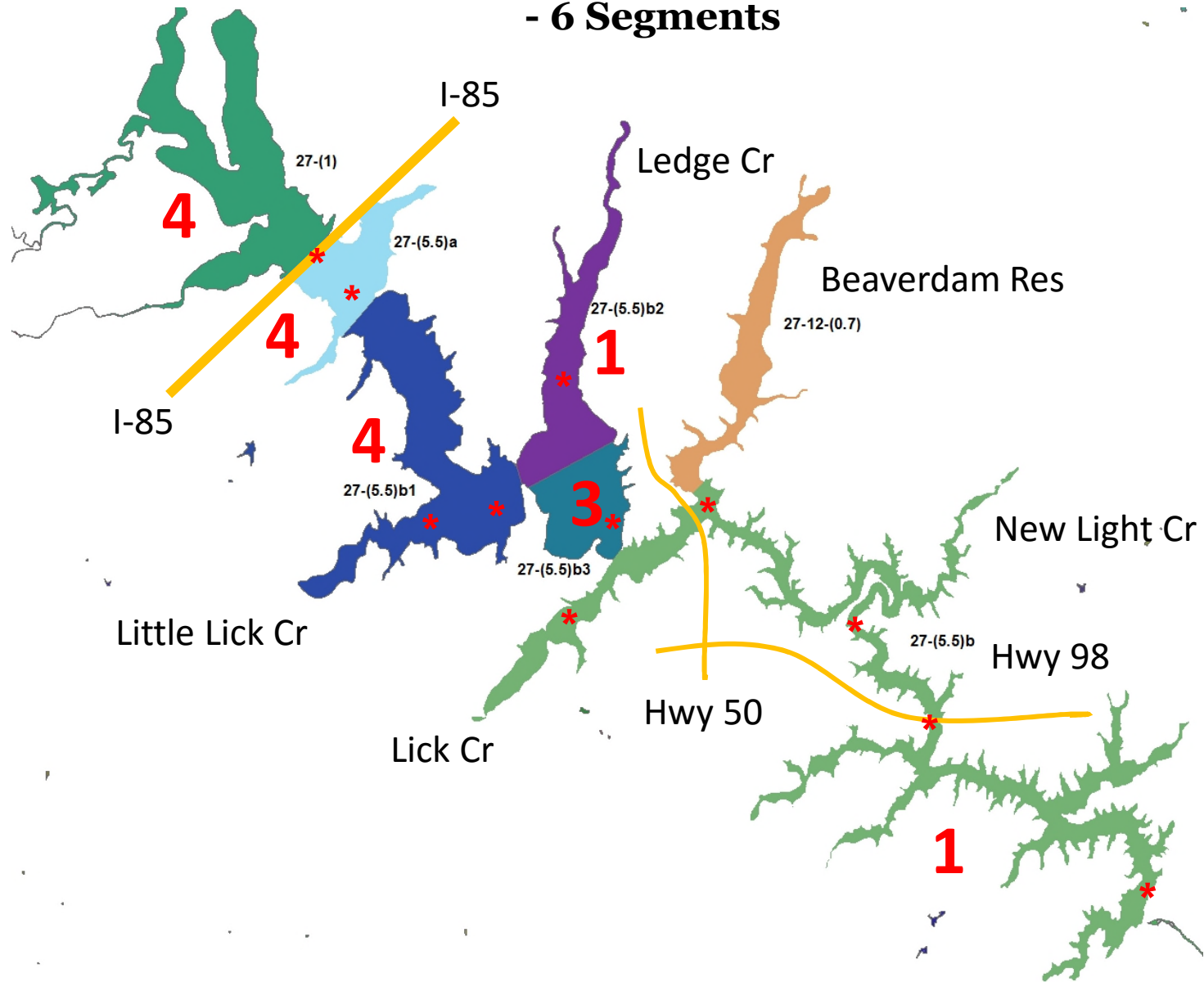
---

**4** Confident Exceeding criteria  
With TMDL or regulatory restoration strategy

*303(d)  
List*

**5** Confident Exceeding criteria  
needs TMDL or regulatory restoration strategy

# Falls Lake 303(d) and IR Segments 2014 - 6 Segments



## Lower Falls Lake

2014

2016 Draft

- Lick Creek Arm to Dam
- Lick Creek Arm
- Lick Cr Arm to New Light Cr
- New Light Cr Segment
- New Light Cr Segment to Dam
- Lower Barton Creek Segment

- 1 (5)
- XXX
- XXX
- XXX
- XXX
- XXX

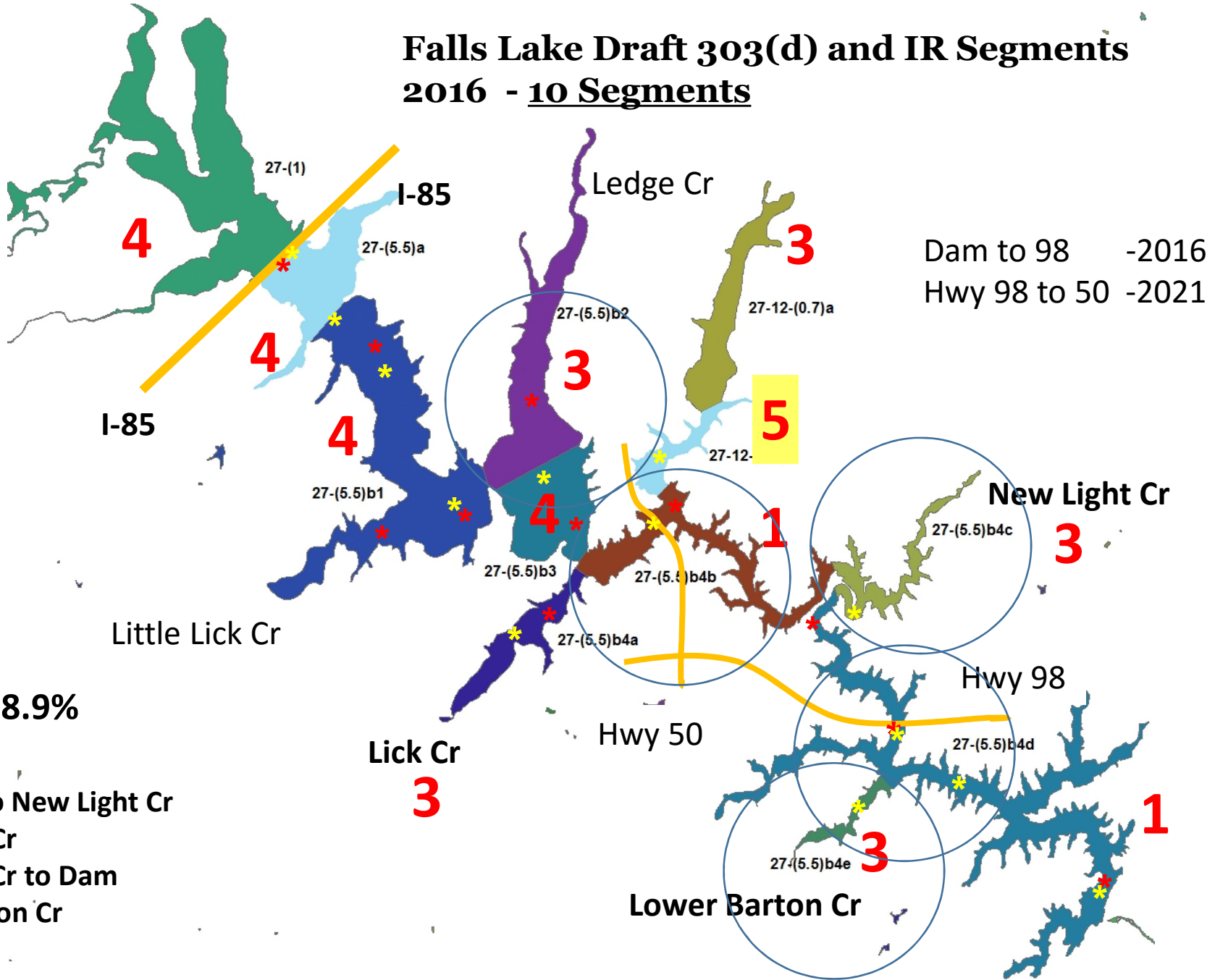
- XXX
- 3 (2)
- 1 (2)
- 3 (1)
- 1 (7)
- 3 (1)

- 2016 Draft 303(d) list adds:  
Beaverdam Reservoir as new 303(d)  
Category 5 impaired  
needing TMDL or strategy (1)

(# monitoring stations)

**Chlorophyll a 4-impaired 3-uncertain 1-meeting standard**

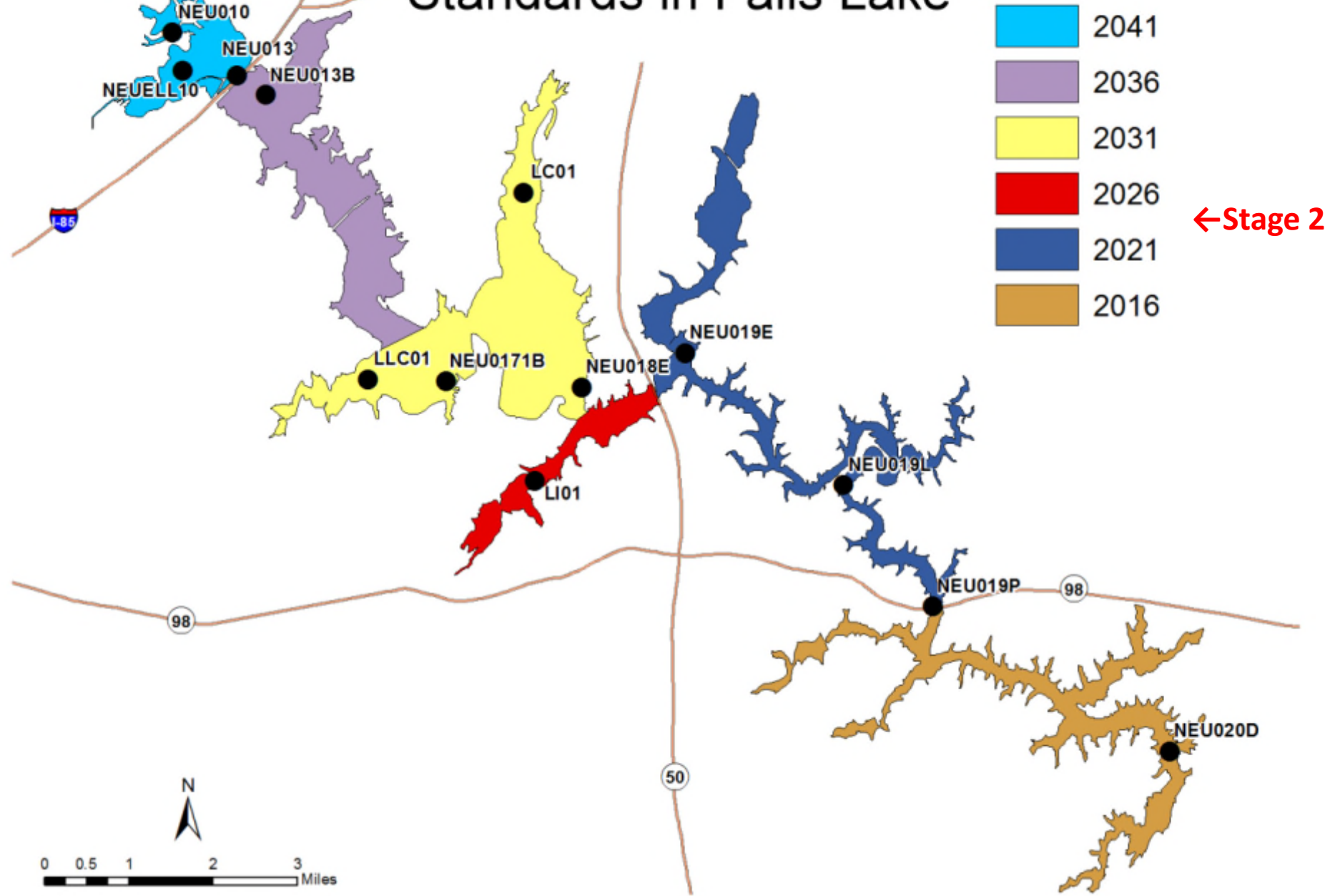
# Falls Lake Draft 303(d) and IR Segments 2016 - 10 Segments



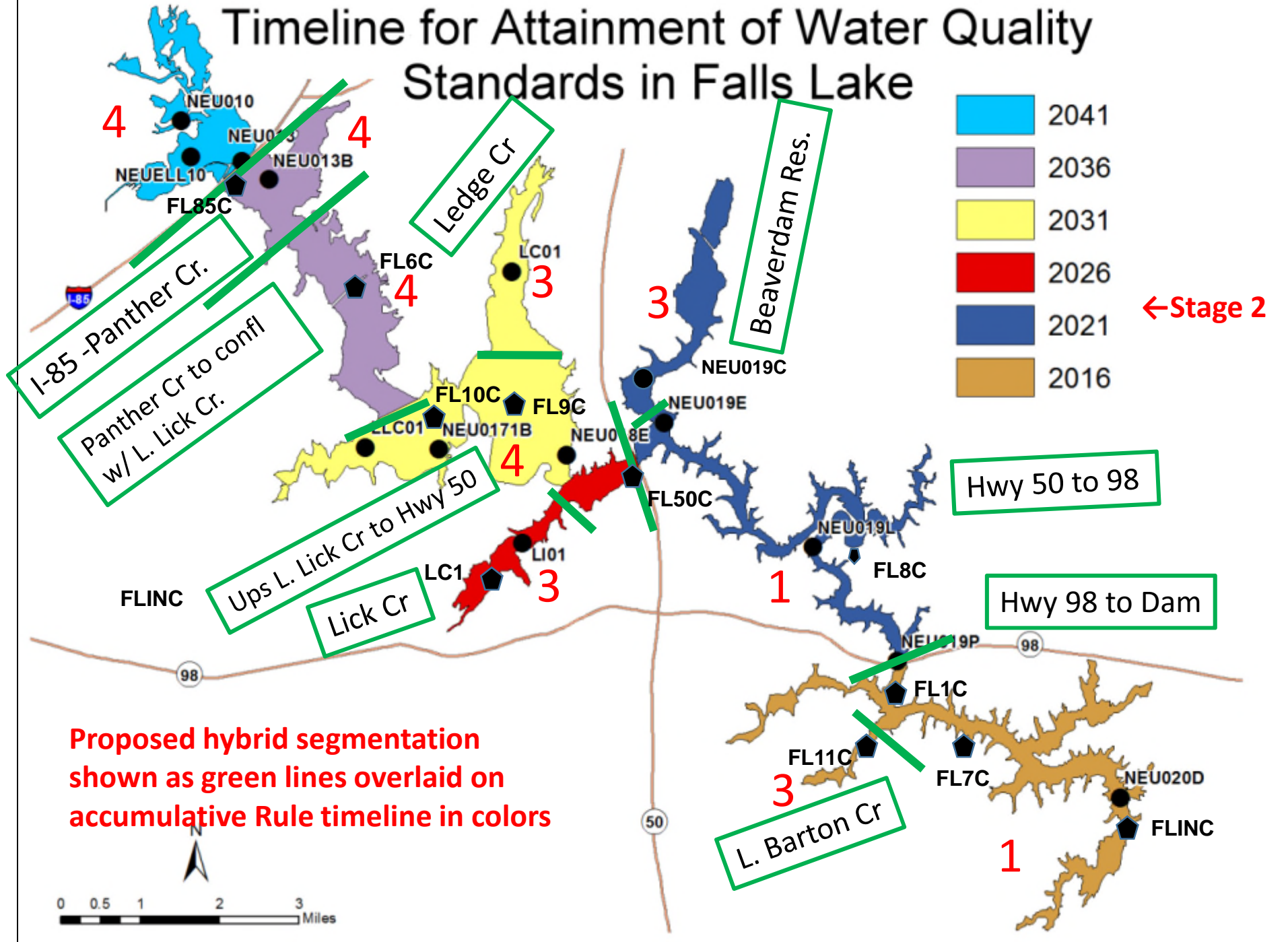
**727/65 = 8.9%**

- Lick Cr Arm
- Fr Lick Cr to New Light Cr
- New Light Cr
- New Light Cr to Dam
- Lower Barton Cr

# Timeline for Attainment of Water Quality Standards in Falls Lake



# Timeline for Attainment of Water Quality Standards in Falls Lake



# Potential Hybrid Segmentation Assessment Units

## 10-segments

#Stations per AU

Category

2	From conf of Eno / Flat River Arm to I-85 Brdg	4	139 obs	90>EL	100% conf.
1	Falls Lake From I-85 bridge to Panther Creek	4	55 obs	25>EL	100% conf
3	Falls L fr Panther Cr to ups of conf w/Little Lick	4	158 obs	55>EL	100% conf.
1	Ledge Creek Arm of Falls Lake	3	54 obs	8>EL	83% conf
4	Falls Lake fr ups of Little Lick Cr to Highway 50	4	160 obs	42>EL	100% conf
2	Lick Creek Arm of Falls Lake (not mainstem)	3	146 obs	19>EL	85.7% confident
1	Beaverdam Cr. Reservoir	3	5 obs	1>EL	59.0% confident
4	Falls Lake Mainstem from Hwy 50 to Hwy 98	1	315 obs	31>EL	
5	Falls Lake Mainstem from Hwy 98 to Dam	1	365 obs	19 >EL	
1	Falls Lake Lower Barton Creek Arm	3	52 obs	7>EL	74% confident