

UNDERSTANDING THE VOLUME REDUCTION PHILOSOPHY

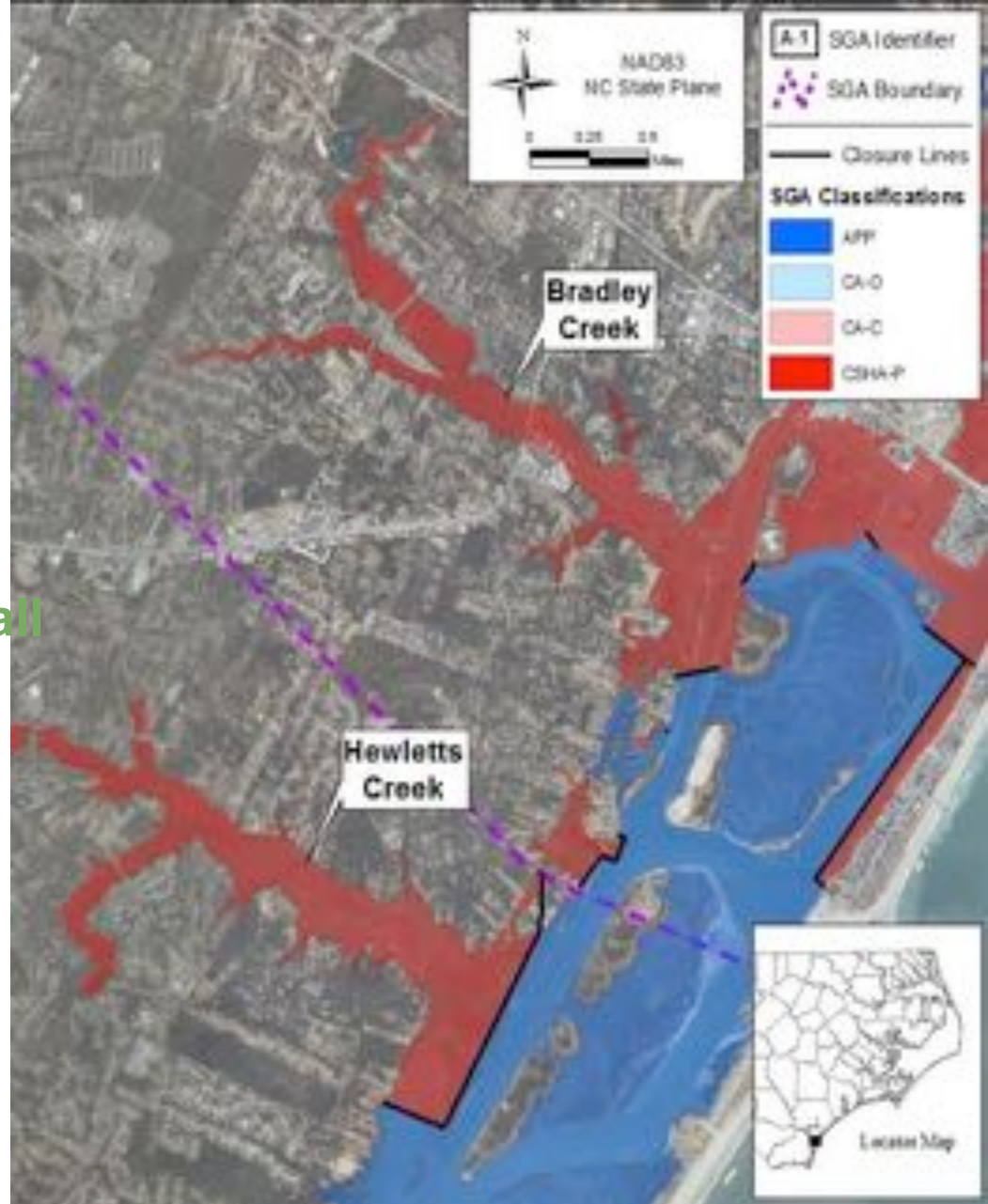
Hunter Freeman, PE



Targeting Bacteria

Shellfishing and Recreational Closures

- Permanent closures
- Closure in response to rainfall



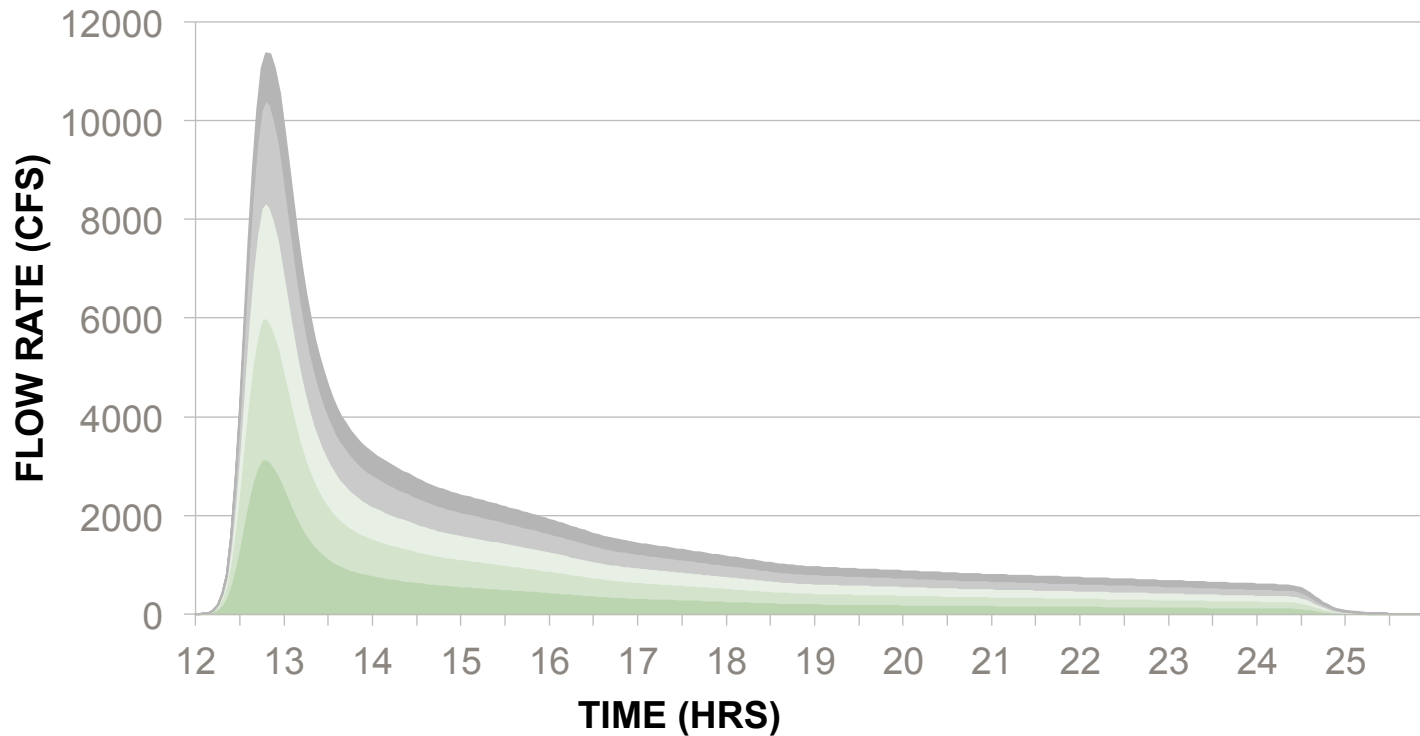


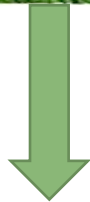
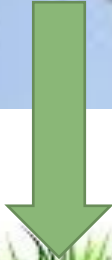
Land Use Impacts

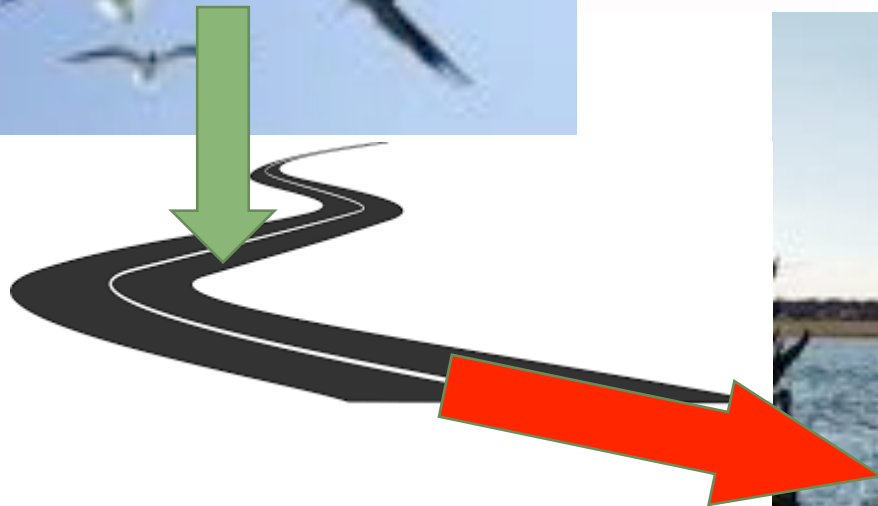
Changing Hydrology

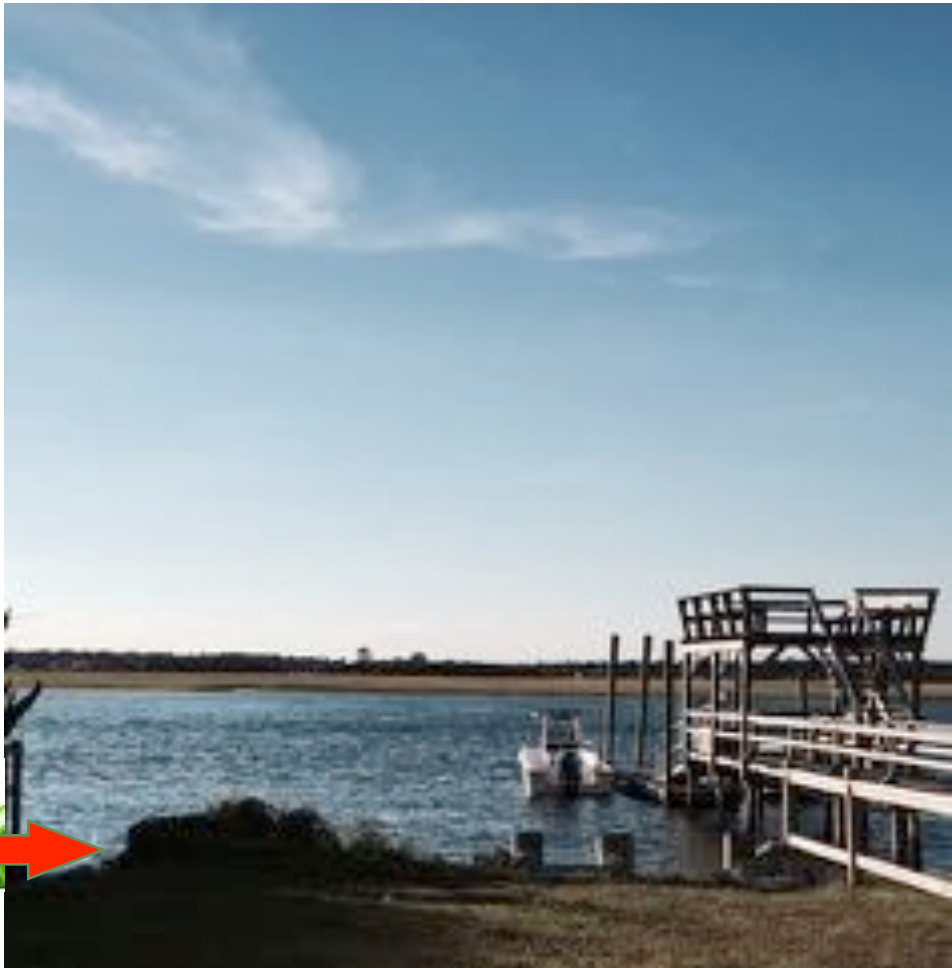
- Increase in volume
- Increase in transport

HEWLETTS CREEK WATERSHED
1-YR STORM HYDROGRAPHS

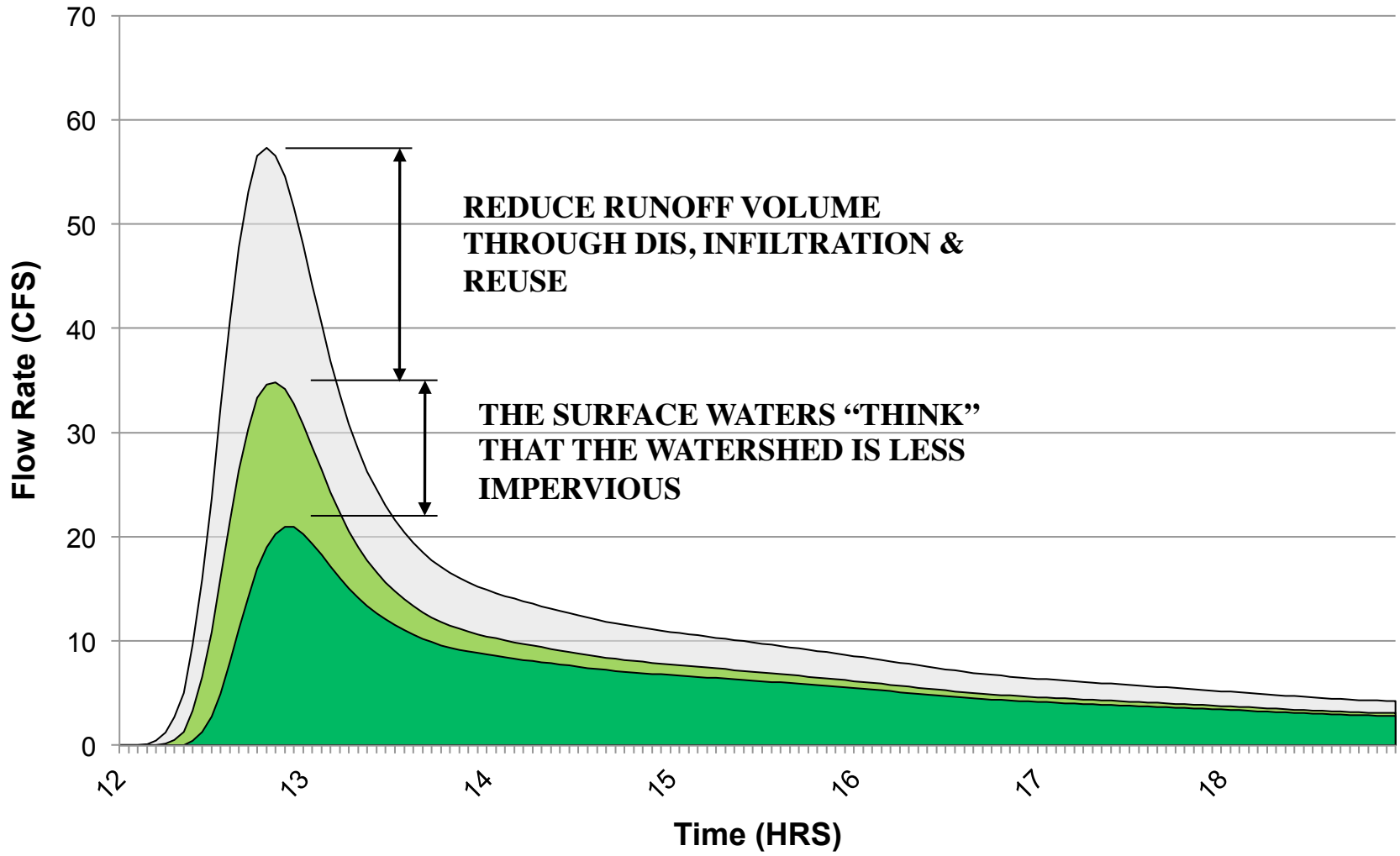








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Wrightsville Beach Retrofit Sites

Sites 1, 2, 3, 5 & 6

- Drain to Lee's Cut
- Captures runoff from +/- 60% of BUA within the watershed

Site 7

- Drains to Banks Channel
- Captures runoff from 100% of the BUA within the watershed



Wrightsville Beach Sites

- **Simple Solutions**

- Excavate behind curb line
- Curb cuts, flumes
- Raised grates, check dams

- **Site 5 – Bioretention Area**

- IWS

- **NCDOT Coordination**

- **Town Coordination**









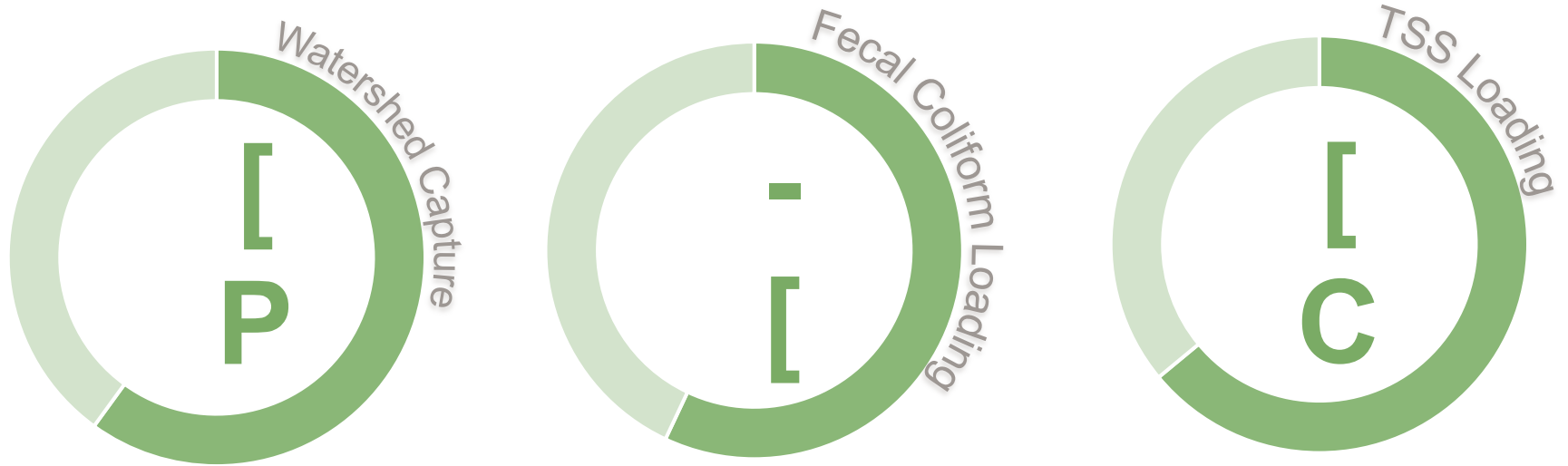


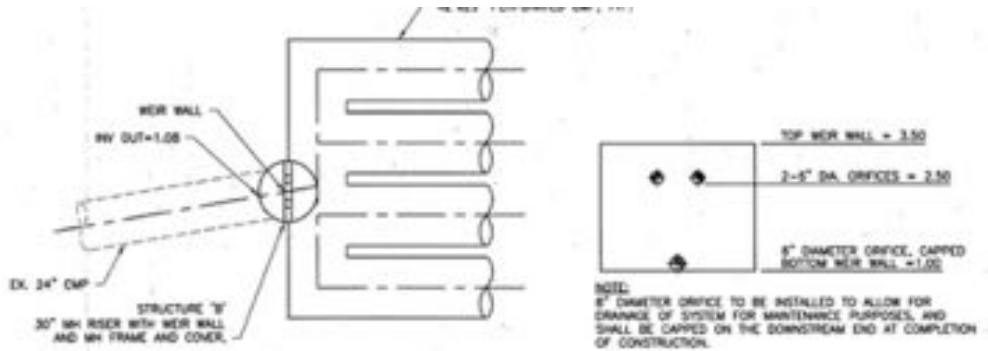
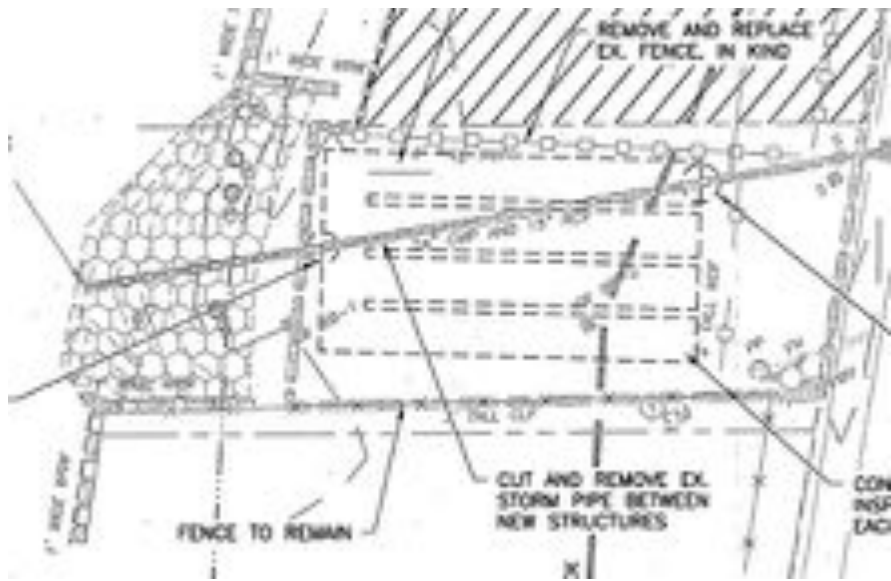




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Lee's Cut Performance Summary



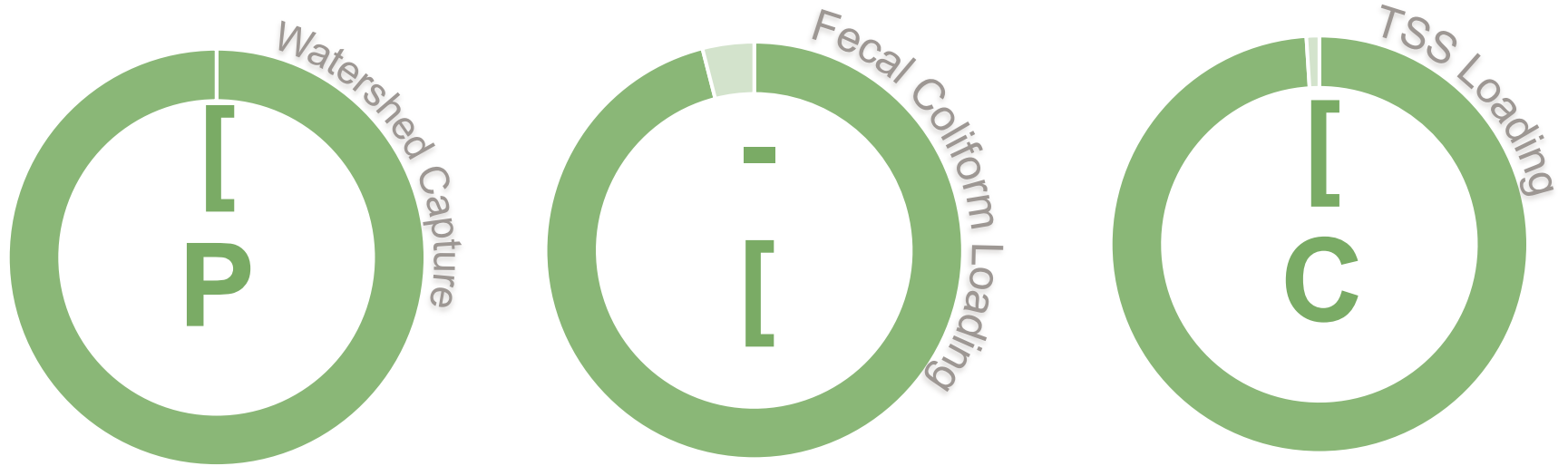








Iula Street Performance Summary



QUESTIONS?