Information Item:
Minneapolis Interceptor Study and Saint Paul Demonstration Project

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Environment Committee: August 13, 2019

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Developing Strategies to Address Inflow and Infiltration

- ☑ Saint Paul Inflow and Infiltration (I/I) Demonstration – 2018-175
- ☑ Minneapolis Interceptor Study – 2018-176

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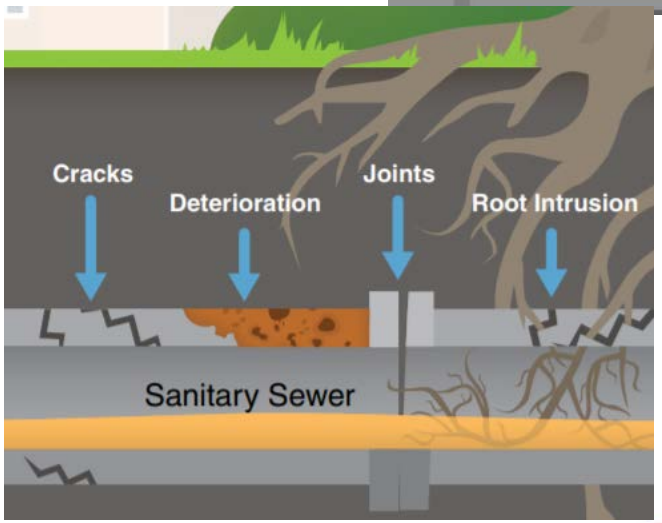
A clear issue: I/I

- Backups to homes and overflows to waterways
- Increased costs to convey and treat
- Reduced capacity for growth
- Wasted resource



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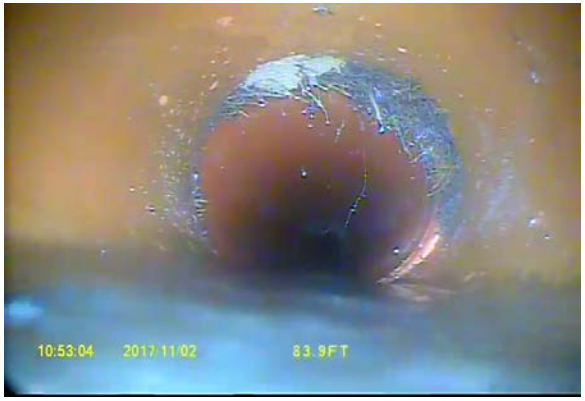
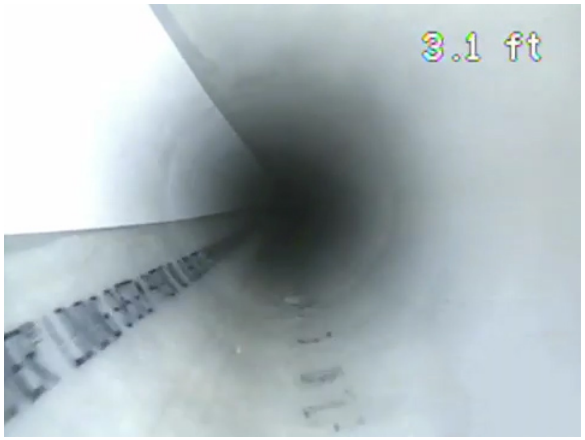
“Unquantified and Unresolved”

- 2016 Task Force recommendation
  - Private property I/I mitigation demonstration project
- Measure impacts on wastewater flows
- Grant funded in 2018





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St. Paul Demonstration Grant

- Quantify flow reduction of I/I mitigation
- Detail the cost-effectiveness
- Provide technical assistance to regional communities

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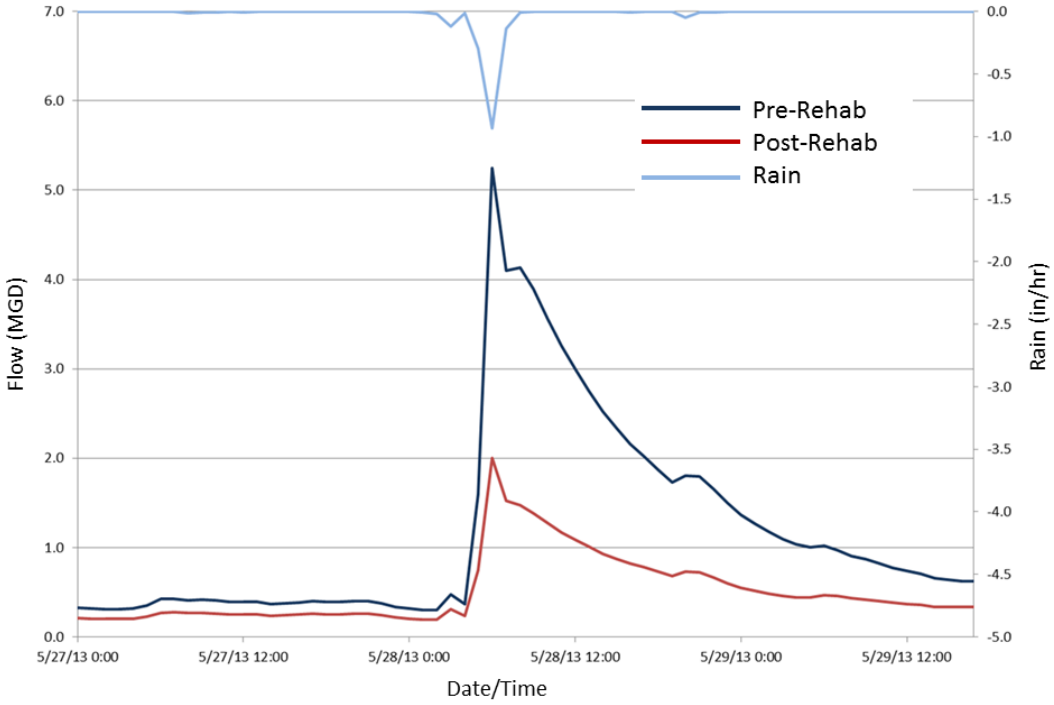
Project Scope

- Identify sources of I/I
- Repair sewer to remove I/I
- Monitor flow before and after repairs
- Evaluate the flow reduction
- Report findings for other communities to use



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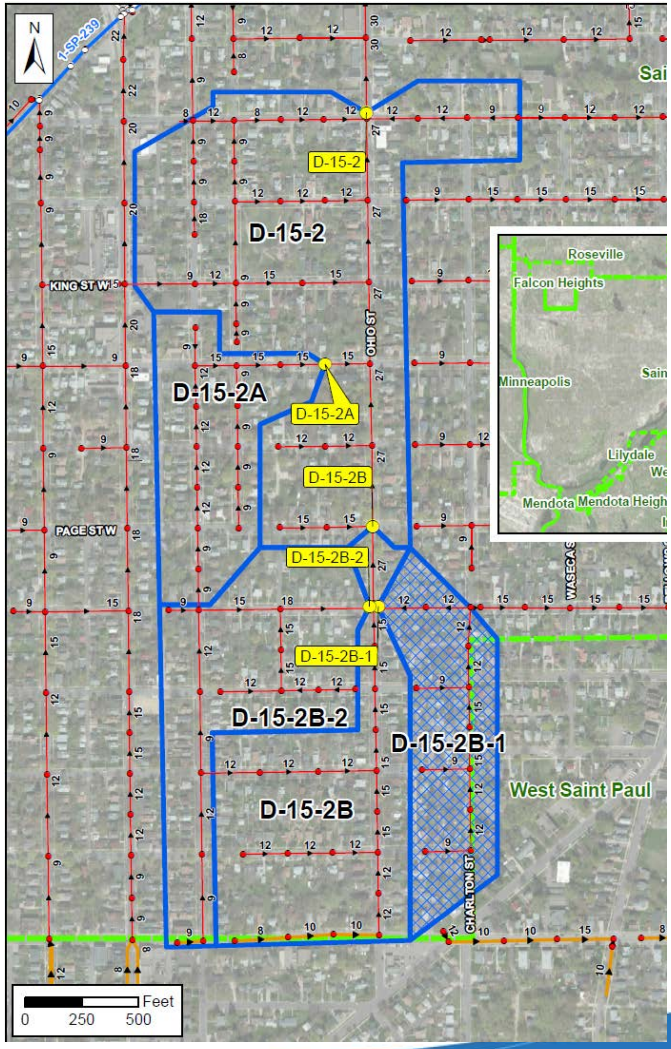
Progress in 2019

- Developed strategy to completion
- Implemented public outreach of study and benefits to property owners
  - MCES Outreach Tools
- Installed flow meters
- Began inspection of service lines



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Schedule

- **December 2018 Award and Notice to Proceed**
- October 2019 1st Annual Report
- October 2020 2nd Annual Report
- October 2021 3rd Annual Report
- **December 2021 Final Report**

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Minneapolis Interceptor Study

- Identify existing and future system limitations
  - Capacity, growth, storm events

- Develop hydraulic model to meet the customer level of service
  - asset renewal, reliability, I/I mitigation, and minimize risk of overflows

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Scope

- Identify areas with high inflow and infiltration
- Identify areas with limited sewer capacity
- Develop strategies to lower risks of sewer overflow
- Prioritize and inform decisions for future

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Minneapolis

2003: Rain leader disconnection program begins

2013: Peak I/I flows reduced by 75% over 10 years

2018: Joint study with MCES includes identifying remaining I/I

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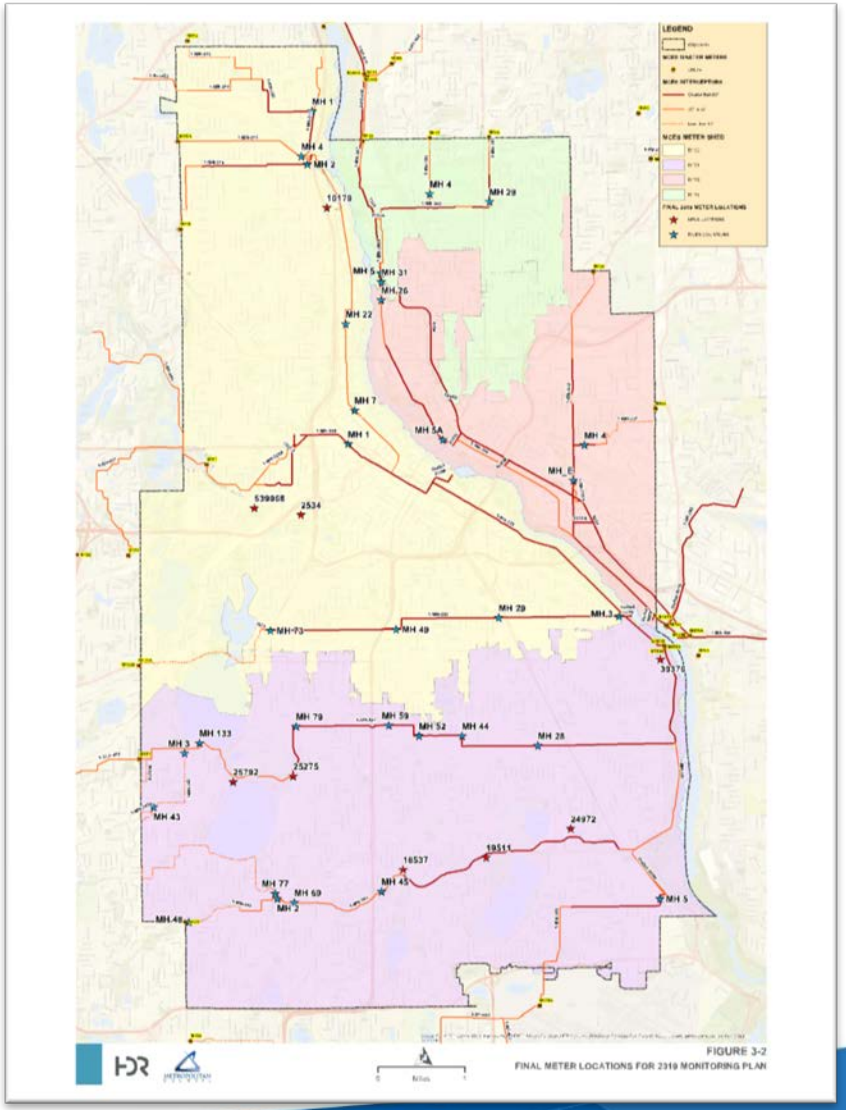
Flow monitoring

- Existing data from MCES and Minneapolis
- 13 rain gages
- 41 wastewater flow meters
- Supplement existing, permanent meters



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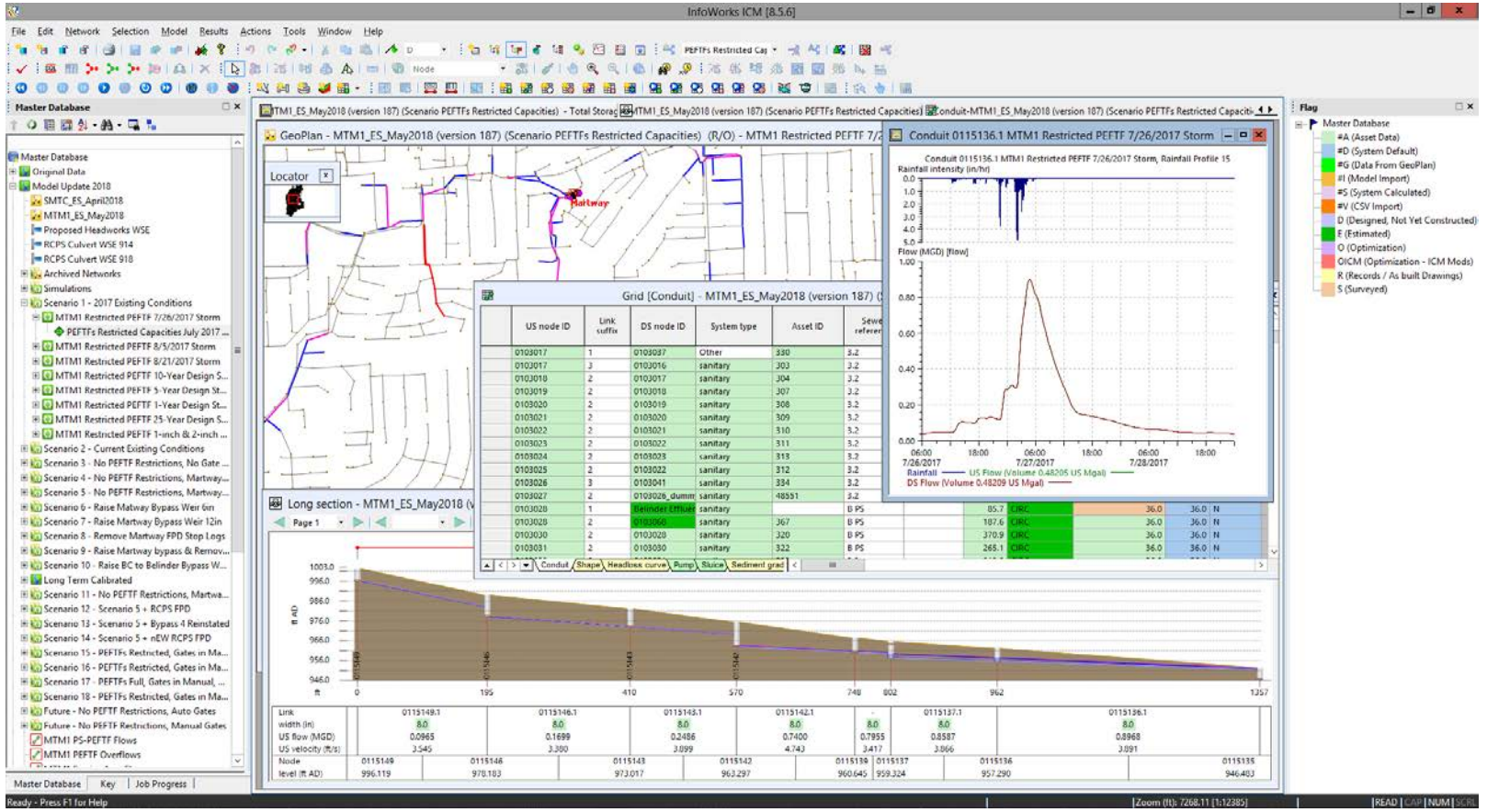
Hydraulic Model



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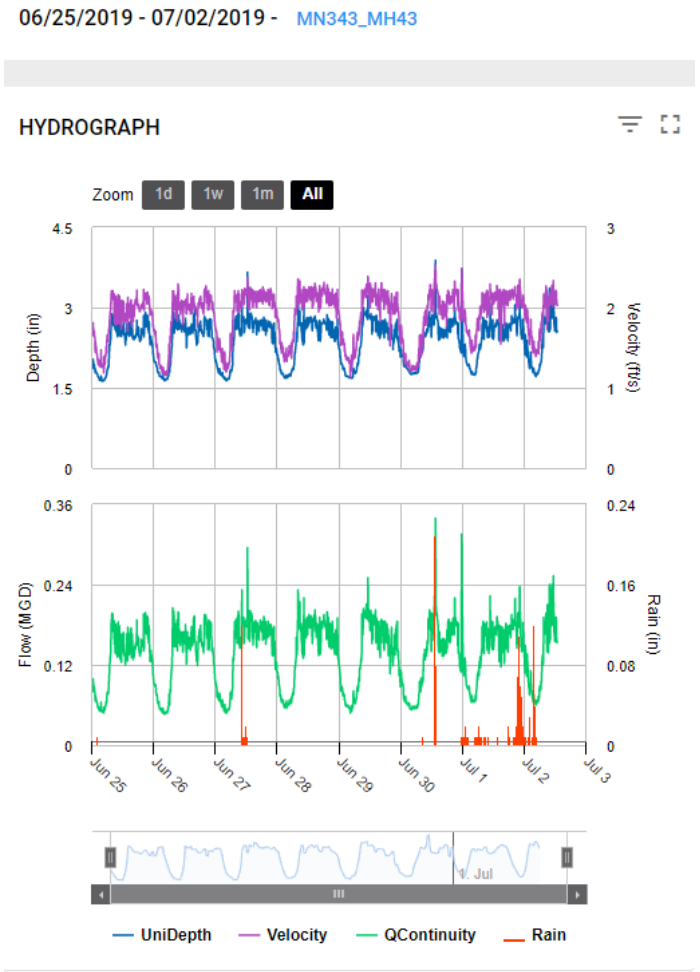
Hydraulic Model

- Forecast flows for population, weather, construction
- Computation version of actual flows in system
- Support long-term planning



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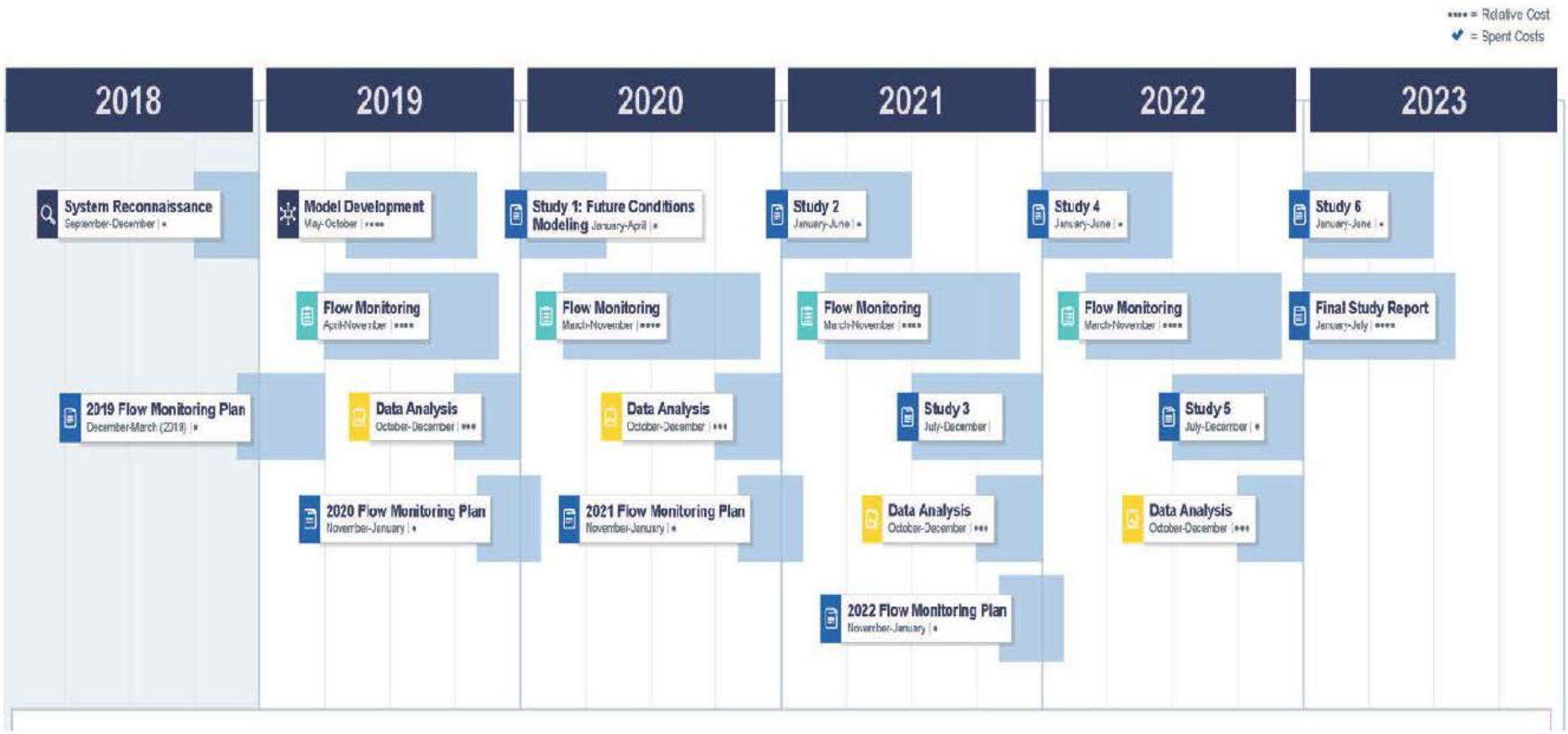

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Questions

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