

# INFILTRATION AND INFLOW (I/I) CONTROL PROGRAM

## INSPECTOR TRAINING & CERTIFICATION PROGRAM INTEREST SURVEY

EVALUATION OF INFLOW AND INFILTRATION  
REDUCTION CONCEPTS PHASE 2

MWPAAC ENGINEERING AND PLANNING  
SUBCOMMITTEE

OCTOBER 7, 2021



**King County**

Department of Natural Resources and Parks  
**Wastewater Treatment Division**

# PURPOSE & DESIRED OUTCOMES

## **PURPOSE**

- Present results of the I/I Regional Inspector Training & Certification Program Interest Survey
- Discuss next steps toward a potential E&P Subcommittee recommendation on whether to implement the Program

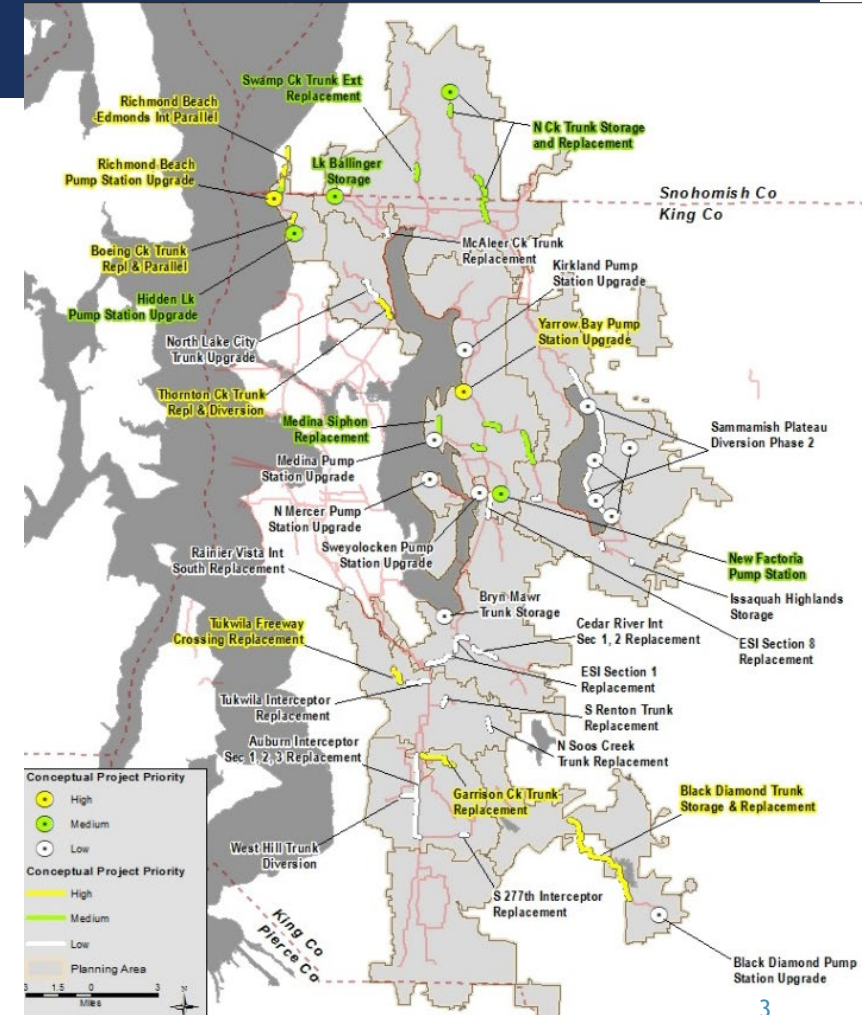
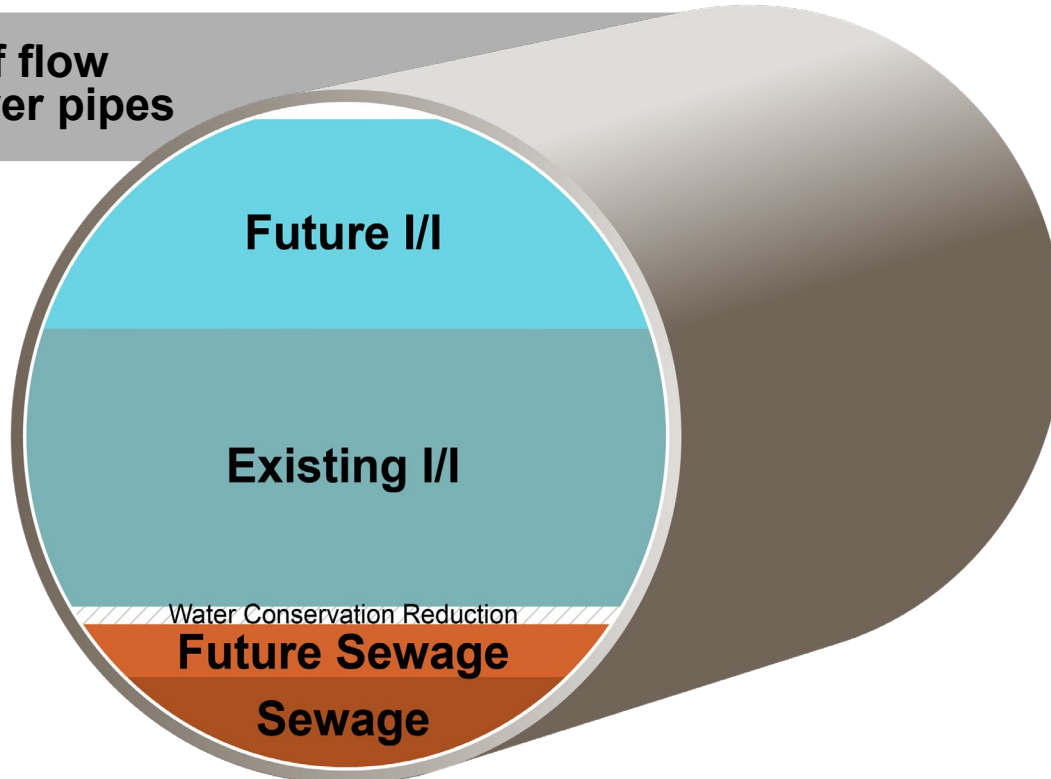
## **DESIRED OUTCOMES**

- Subcommittee is apprised and understand the results from the Interest Survey
- Subcommittee begins discussion of potential recommendation of the I/I Regional Inspector Training and Certification Program

# I/I IN THE REGIONAL WASTEWATER CONVEYANCE SYSTEM

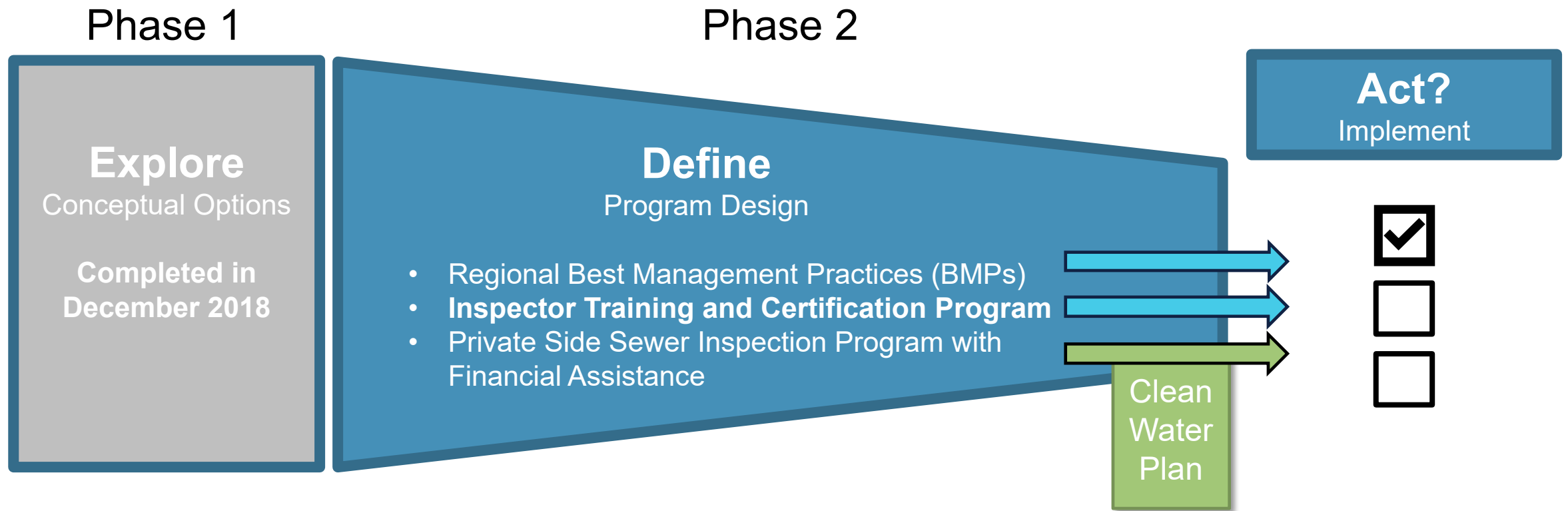
Infiltration and inflow (I/I) is stormwater and groundwater that enters the sewer system

Components of flow in regional sewer pipes



2017 Conceptual Conveyance System Improvement Projects

# OVERVIEW OF CURRENT I/I WORK



# OVERVIEW OF INSPECTOR TRAINING & CERTIFICATION PROGRAM

## **Program Goal**

- All component agency sewer inspectors (staff or contractors) are consistently trained and certified to inspect side sewers and laterals of the sanitary sewer system and enforce proper installation, rehabilitation, and repairs to reduce I/I.

## **Program Success Factors**

- Have 100% of side sewer inspectors trained and certified within 3-5 years of program launch.
- Reach agreement among majority of local agencies to participate in program development and meet training and certification requirements.

# OVERVIEW OF INSPECTOR TRAINING & CERTIFICATION PROGRAM

## Qualifications

- Graduation from high school supplemented by college-level courses related to inspection work
- Documented minimum of 5 years of experience in field or office engineering work involving sewer construction, repair and/or rehabilitation work

## Training

- 7 hours of online training in the following modules:
  - Introduction to program
  - Inspection methods and standards
  - Testing standards
  - Construction best management practices
  - Safety issues and customer service

## Certification Exam and Recertification

- 1 hour online exam
- Minimum passing grade and certificate
- Test-out option available
- Equivalent certification should be recognized
- 5-year recertification frequency

## Roles & Responsibilities

- County – proposed program sponsor/administrator and would cover cost to set-up and administer program
- Participating sewer agencies – inspector training participants and would cover cost of staff time to participate

# INTRODUCTION TO INTEREST SURVEY



A short survey was distributed to MWPAAC agencies to gauge

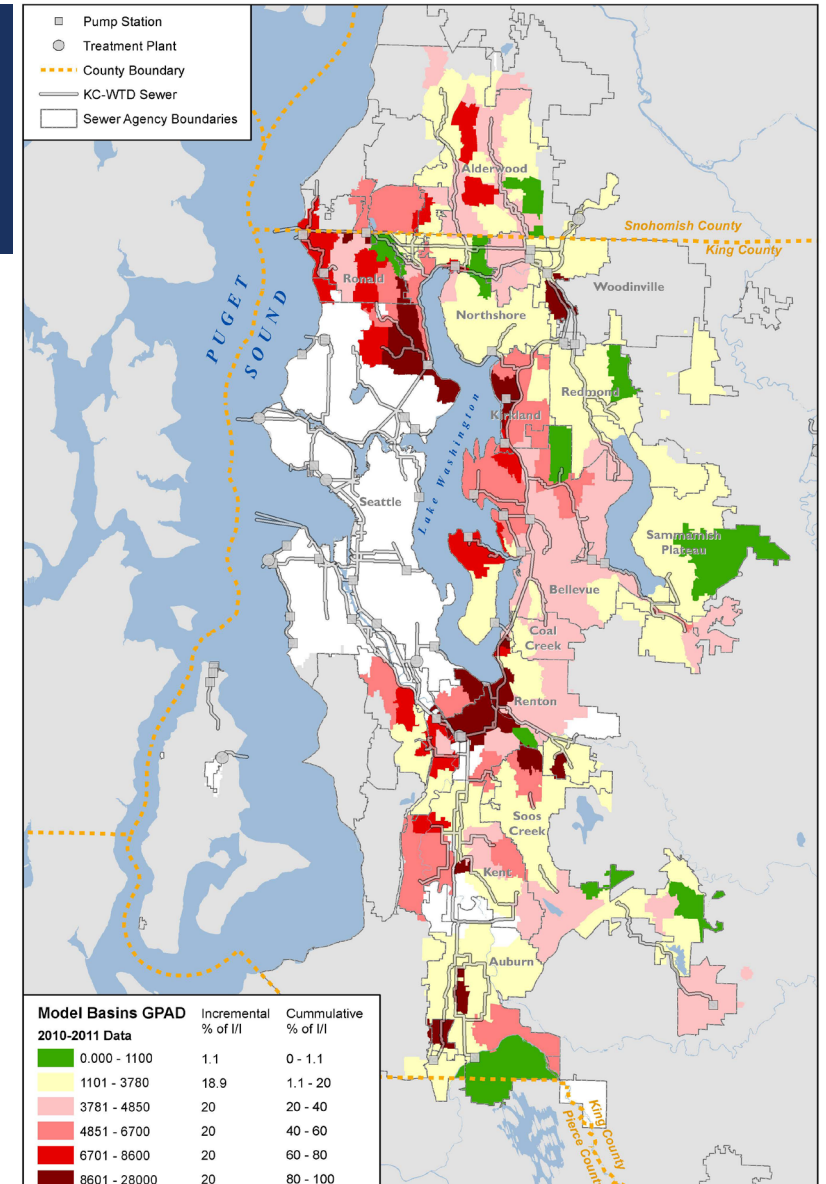
- Interest in implementation
- Barriers to participation
- Inspector pool information
- Interest in an inspector-in-training program

## **Survey Information**

- Completed by a General Manager, Public Works Director, or equivalent employee
- **Completed by 16 MWPAAC agencies**

# SURVEY RESPONDENTS

1. Alderwood Water & Wastewater District
2. City of Auburn
3. City of Bothell
4. Cedar River Water & Sewer District
5. Coal Creek Utility District
6. Cross Valley Water District
7. Northeast Sammamish Sewer & Water District
8. Northshore Utility District
9. Olympic View Water and Sewer District
10. City of Redmond
11. City of Renton
12. City of Seattle
13. Skyway Water and Sewer District
14. Soos Creek Water & Sewer District
15. City of Tukwila
16. Valley View Sewer District



**20-year Peak I/I Flow Rates  
2010-2011 data**



# SURVEY RESULTS – IMPORTANCE & NEED

## What is your agency's opinion on the need of the Program to regional I/I control?

- **16 respondents (94%) indicated that there is at least some need for the program**
  - 1 respondent (6%) indicated that there is a critical need for the program
  - 11 respondents (65%) indicated that there is significant need for the program
  - 4 respondents (24%) indicated that there is some need for the program
  - 1 respondent (6%) indicated that there is very little need for the program

## What is your agency's opinion on the importance of the Program to regional I/I control?

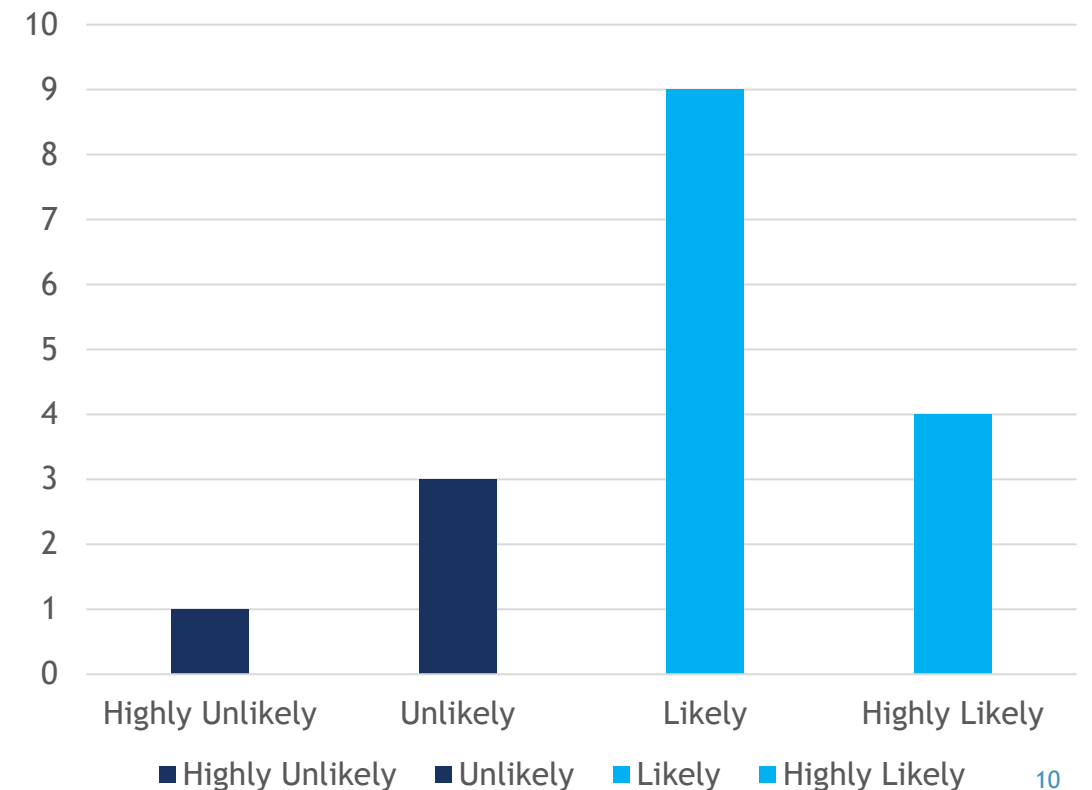
- **17 respondents (100%) indicated that the program was at least somewhat important**
  - No respondents indicated that the program is not at all important
  - 5 respondents (29%) indicated that the program is somewhat important
  - 8 respondents (47%) indicated that the program is significantly important
  - 4 respondents (24%) indicated that the program is extremely important

# SURVEY RESULTS – INTEREST

## What is the probability that your agency will participate in the Program if it is implemented?

- 4 respondents (24%) indicated that it is unlikely or highly unlikely that their agency would participate
- **13 respondents (76%) indicated that it is likely or highly likely that their agency would participate**

Probability of Participation



# SURVEY RESULTS – BARRIERS

## **What barriers stand in the way of your agency's participation in the Program?**

- 7 respondents (41%) indicated that budget is a barrier
- 11 respondents (65%) indicated that staffing capacity is a barrier
- 1 respondent (6%) indicated that labor unions are a barrier
- 4 respondents (24%) indicated that there is a duplicative existing agency training
- 4 respondents (24%) indicated in the comments that there were minor or no barriers to their agency

# SURVEY RESULTS – INSPECTOR INFORMATION

How would you classify the inspectors you employ or use for side sewer inspection work?

- **16 respondents (94%) indicated that they employed in-house staff inspectors**
- 1 respondent (6%) indicated that they employed contracted or 3<sup>rd</sup> party inspectors

How many inspectors do you employ or use for side sewer inspection work?

- 3 respondents (18%) indicated that they employed 6 or more inspectors
- **13 respondents (76%) indicated that they employed 1-5 inspectors**
- 1 respondent (6%) did not indicate a number or range

How would you describe the sentiment of your inspectors towards the potential Program?

- 3 respondents (18%) indicated that inspectors opposed the program
- **8 respondents (47%) indicated that their inspectors expressed neutral sentiments towards the program**
- 6 respondents (36%) indicated that their inspectors expressed favorable sentiments towards the program <sup>12</sup>

# SURVEY RESULTS – INSPECTOR IN-TRAINING PROGRAM

**What is your agency's interest in exploring in the future an additional regional program to train and prepare individuals to become side sewer inspectors and develop the inspector pool i.e. inspector in-training program?**

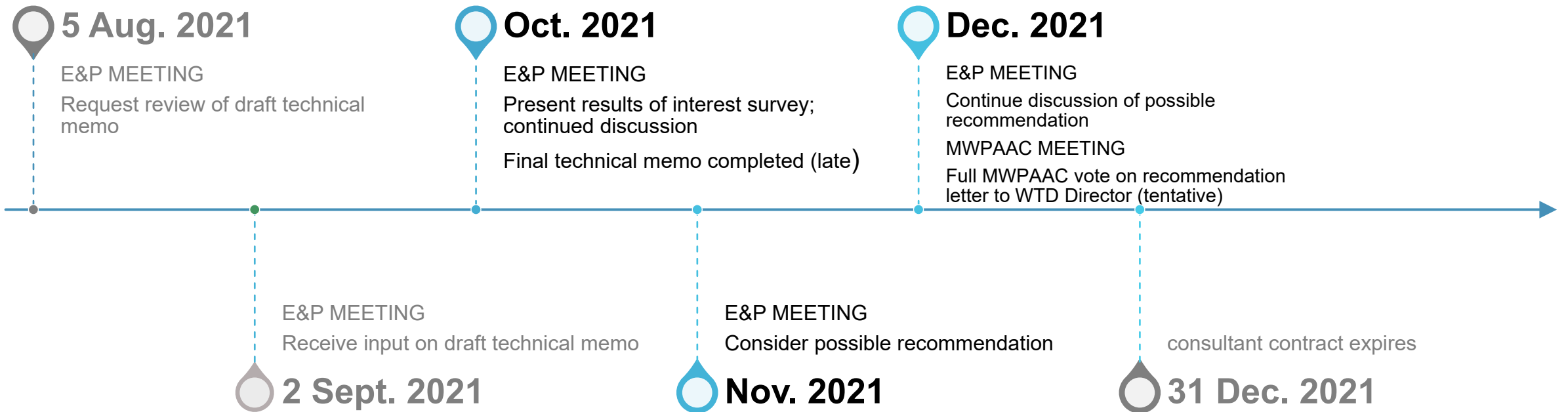
- 4 respondents (24%) are uninterested
- **13 respondents (76%) are interested**
  - 8 respondents (47%) are interested
  - 4 respondents (24%) are significantly interested
  - 1 respondent (6%) is extremely interested

# TAKEAWAYS

## Majority of respondents stated:

- The program is important to regional I/I control
- There is a need for the program to support regional I/I control
- It was likely that their agency would participate if the program is implemented
- Their agency's inspectors expressed neutral sentiments towards the program

# LOOKING AHEAD



THANK YOU

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