Update

- **CS-272: Capital Improvement Program Delivery**
  Contract Summary

- **10 Interrelated CIP Tasks**

- **Goal to improve CIP Execution**
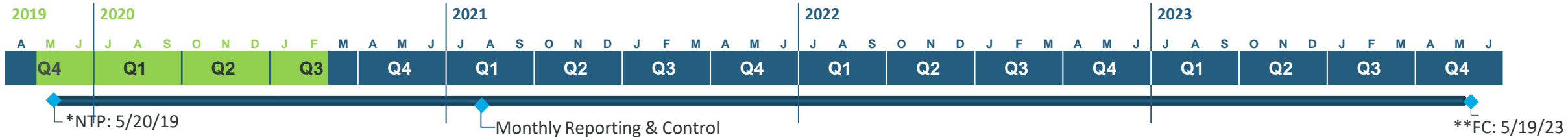
- **$54,934,034.00**

- **Duration – 4 Years**

- **Contract Executed -17 May 2019**

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CS-272: Capital Improvement Program Delivery

GLWA FISCAL YEAR

2019	2020				2021					2022				2023			
Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4

*NTP: 5/20/19

Monthly Reporting & Control

**FC: 5/19/23

Key Progress

- Presented proposed Program Management Plan (PMP) structure and approach to GLWA Leadership at Workshop January 30

- Presented Recommendation on CIP Project Management Model (Delivery Model) to GLWA on February 14, 2020

- Recommendation on CIP PMO Governance (structure and location) to GLWA Leadership on February 28

- Business Process Improvements- Recommendation Phase Underway

- Provided Change Impact Outcomes Report to GLWA

- Working on a Pilot Test of Proposed WBS for the IMS

- Conducted Workshops with Water and Wastewater to review first year's CIP Validation And outline Validation Plan for Year 2

- Developed a Proposal to Prepare a Basis of Design (BOD) Report for the Oakwood District Intercommunity Relief Sewer

Budget/Schedule

Contract Duration 1,461 Calendar Days
285 Calendar Days since NTP
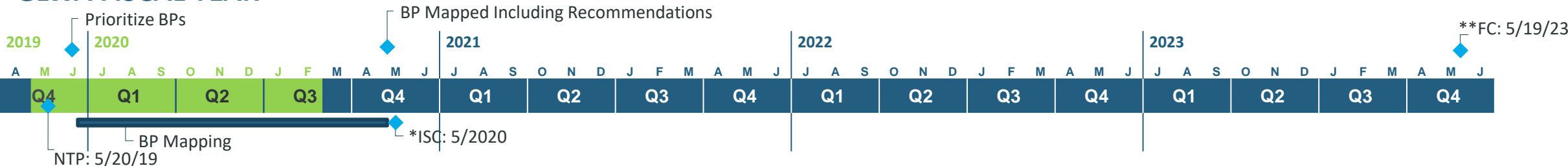(as of February 28, 2020)

19.5 % Time Elapsed

Total
$54,934,034

Spent to Date
$4,890,695 = 8.9%

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*NTP = Notice to Proceed   **FC = Final Substantial Completion

Task 1: CIP Business Process Improvements
Lump Sum Task

GLWA FISCAL YEAR

Prioritize BPs

BP Mapped Including Recommendations

2019 | **2020** | **2021** | **2022** | **2023** | ****FC: 5/19/23**

A M J J A S O N D J F M A M J J A S O N D J F M A M J J A S O N D J F M A M J J A S O N D J F M A M J

Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4

BP Mapping

*ISC: 5/2020

NTP: 5/20/19

Key Progress

- 100% of As-is Business Process Workflow Mapped. Final review by Business Units is Underway
- Business Process Improvement Recommendations are Rolling Out
- Presented Recommendation on CIP Project Management Model (Delivery Model) to GLWA on February 14, 2020

Budget

Total

$1,043,816

—————

Spent to Date

$597,472 = 57.2%

Schedule

Estimated 378 Calendar Days
285 Calendar Days since NTP

(as of February 28, 2020)

—————

75.4% Time Elapsed

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Testimonial
from an Engagement Team Member

A GLWA Team Member stopped me in the hallway to say thank you. They said that they recognize what we (Plante Moran Cresa) do is a thankless job, but they wanted me to know how much they, as a newer employee (less than 5 years), appreciates what we are doing.

They said they're learning a lot by attending these workshops and they are excited to see standards being created. They know how helpful these standards will be to them and future employees of GLWA.

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Task 01 – Business Process Improvement Phases

Discovery → As-is Mapping → Workshops → Recommendation → Workshops

Recommendation:
- Identify Areas for Workflow Improvement and Efficiencies
    - Sequencing
    - Technology
    - Formalizing
    - Documenting Expectation

- Present Recommendations- Enhanced and New (Workshop)

- Include Multiple Groups and Functions (Workshop)

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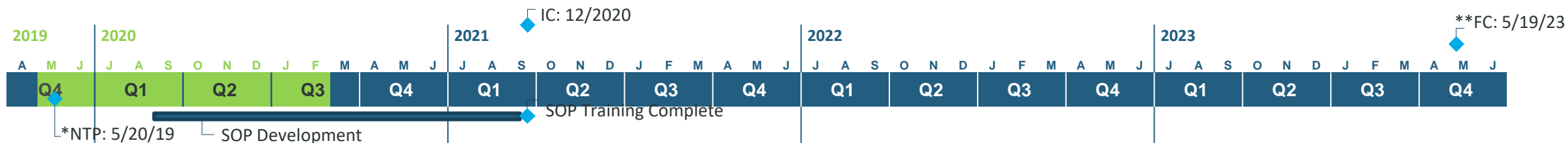| PROCESS: Project Management Delivery Model (Hand-Off) | GROUP: Wastewater Design Engineering | DATE: 10/24/19- For AECOM Review |

TIME: START   FINISH

WW Design Engineer
- Start
- Identify Need for Design Consultant. Develop Scope
- Manage Design Consultant to Completed Design
- Identify Scope for Construction Contractor. Develop Scope
- Responsible for Design Management throughout Construction and Closeout
- Responsible for Design Contract Closeout post Construction
- Notify Construction Engineer when design Contract is Closed Out

Procurement
- Procure Design Consultant
- Procure Contractor

GLWA Board
- Contractor Approval

WW Const Engineering
- Manage Construction Contractor to Completed Scope
- Responsible for Construction Management throughout Construction and Closeout
- Responsible for Construction Contractor Closeout post Construction
- Completes Final Project Closeout with Procurement
- End

Notes:
1. Design-Build Projects: Construction Engineering owns project from start to finish
2. Invoicing: Design Engineer processes Design Consultant Invoices and Construction Engineering processes Contractor Payment Applications
3. Change Management: Design Engineer Processes Design Change Directives and Design Contract Amendments throughout project

SOURCE: Wastewater Design Engineering Discovery Meeting 08/14 & 08/16

Task 2: CIP Delivery Standard Operating Procedure (SOP) Development
Lump Sum Task

GLWA FISCAL YEAR

IC: 12/2020

**FC: 5/19/23

2019	2020				2021					2022				2023			
A M J	J A S	O N D	J F	M A M J	J A S	O N D	J F M	A M J	J A S	O N D	J F M	A M J	J A S	O N D	J F	M A M	J
Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	

SOP Training Complete

*NTP: 5/20/19   SOP Development

Key Progress	Budget	Schedule
• Presented proposed Program Management Plan (PMP) structure and approach to GLWA Leadership at Workshop January 30 • Supported Task 1 with Recommendation on CIP Project Mgt Model (Delivery Model) to GLWA Leadership February 14 • Supported Task 3 with Recommendation on CIP PMO Governance (structure and location) to GLWA Leadership on February 28	**Total** **$1,181,756** --- **Spent to Date** **$39,293 = 3.3%**	**Estimated 577 Calendar Days** **285 Calendar Days since NTP** (as of February 28, 2020) --- **49.4% Time Elapsed**

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Task 02 – Program Management Plan/SOP Development

Discovery → As-is Mapping → Workshops → Recommendation → Workshops → PMP/SOP's → Training/Roll-Out
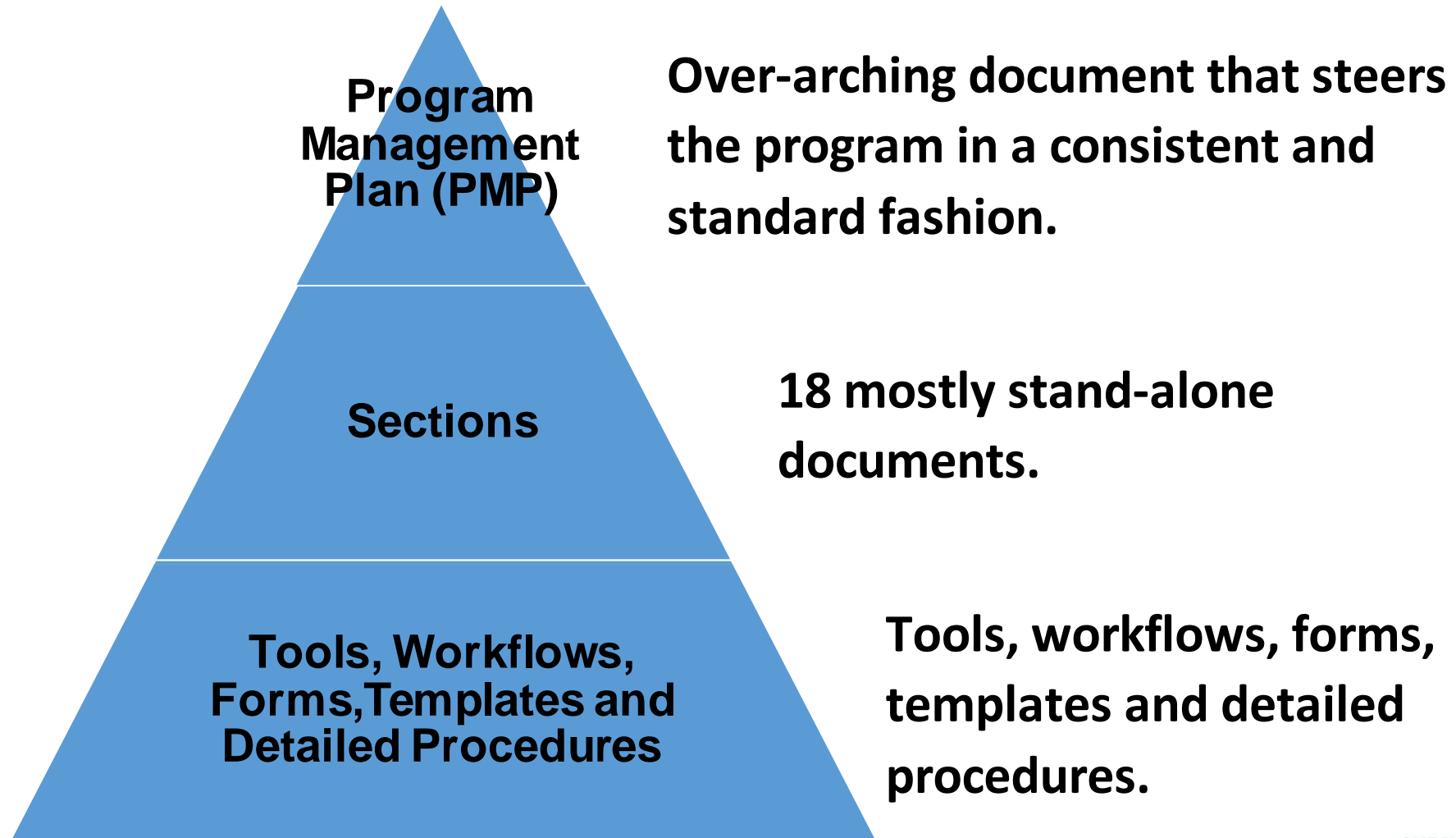
PMP/SOP's:

- Formally Document Processes
  - Program Management Plan (PMP)
  - Standard Operating Procedures (SOP)
- Attach Templates, Forms and Other Tools
- Provides for Quality and Consistency
  - Internal
  - External
  - CIP Throughput
  - CIP Team Growth

Training/Roll-out:

- Train Team Members on New/Modified CIP Business Processes
- Abbreviated Roll-Out for Selected Processes
- RFI/Submittal Process (Real-Time Example)

GLWA
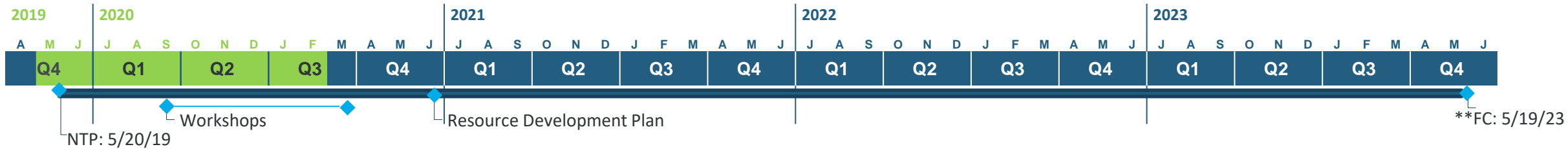*Great Lakes Water Authority*

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Guidance Document/PMP

Program Management Plan (PMP)

Sections

Tools, Workflows, Forms, Templates and Detailed Procedures

Over-arching document that steers the program in a consistent and standard fashion.

18 mostly stand-alone documents.

Tools, workflows, forms, templates and detailed procedures.

CIP Delivery PMO Role Profiles

| PROGRAM MANAGEMENT | PROJECT MANAGEMENT | ASSURANCE MANAGEMENT | CONTROL MANAGEMENT | SUPPORT FUNCTIONS |

Task 3: CIP Delivery Resource Evaluation
Lump Sum Task

GLWA FISCAL YEAR

2019	2020			2021				2022				2023			
A M J	J A S	O N D	J F	M A M J	J A S	O N D	J F M	A M J	J A S	O N D	J F M	A M J	J A S	O N D	J F M A M J
Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3 Q4

Workshops

Resource Development Plan

NTP: 5/20/19

**FC: 5/19/23

Key Progress

- Conducted PMO Governance Workshop on 2/14
- Provided Change Impact Outcomes Report to GLWA
- Continued Change Leadership and Focus Group Forums
- Working on the Resource Development Plan

Budget

Total

$676,847

Spent to Date

$391,725 = 57.9%

Schedule

Estimated 1,461 Calendar Days

85 Calendar Days since NTP

(as of February 28, 2020)

19.5 % Time Elapsed

*ISC = Interim Substantial Completion   **FC = Final Substantial Completion

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What Is In A Resource Development Plan?

A

CURRENT STRENGTHS

B

FULL TIME EQUIVALENTS (FTES)

C

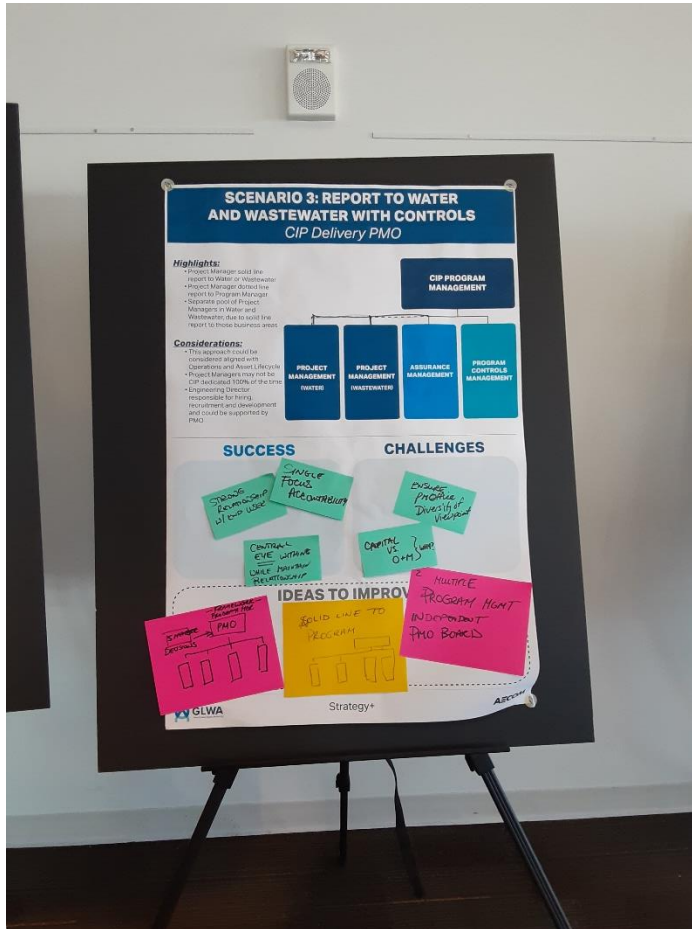**TRAINING APPROACH**

D

TEAM STRUCTURE

E

POSITION REQUIREMENTS

F

SUGGESTED MODIFICATIONS

GLWA
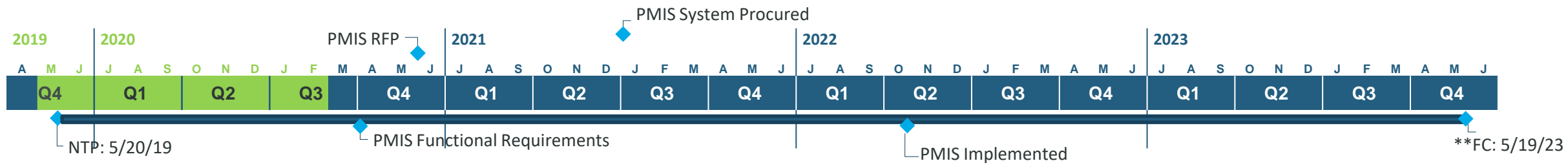*Great Lakes Water Authority*

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PMO Governance Workshop – 2/14/20

Task 4: Project Management Information System (PMIS) Selection & Implementation

Lump Sum Task

GLWA FISCAL YEAR

PMIS System Procured

PMIS RFP

2019 | 2020 | 2021 | 2022 | 2023

A M J | J A S O N D | J F | M A M J | J A S O N D | J F M A M J | J A S O N D | J F M A M J | J A S O N D | J F M A M J

Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4

NTP: 5/20/19

PMIS Functional Requirements

PMIS Implemented

**FC: 5/19/23

Key Progress

- Data Gathering
- Met with IT, Procurement, Engineering, and CIP Team Members to Establish Baseline Requirements for:
  - Software Procurement Approach
  - Standard Practices and Templates for Procurement Documents
  - Core Functional Requirements for the future PMIS

Budget

Total

$1,493,744

Spent to Date

$126,968 = 8.5%

Schedule

Estimated 1,461 Calendar Days
285 Calendar Days since NTP
(as of February 28, 2020)

19.5 % Time Elapsed
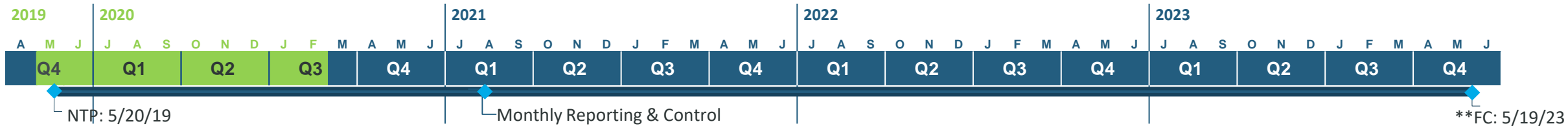
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From Program Management Plan (PMP) to Program Management Information System (PMIS)

Task 5: Project Controls & Reporting Support
Time & Materials

GLWA FISCAL YEAR

2019	2020			2021				2022				2023			
Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4

NTP: 5/20/19

Monthly Reporting & Control

**FC: 5/19/23

Key Progress

- Identified top ten projects behind planned spending
- Setting up monthly status meetings with engineering and procurement to identify projects that can be expedited
- Working on a Pilot Test of Proposed WBS for the IMS

Budget

Total

$12,717,034
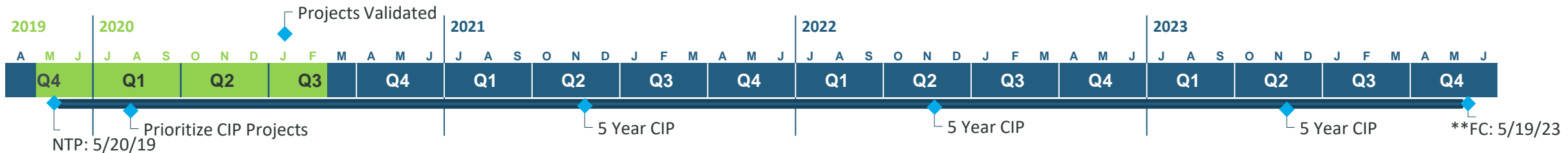
___

Spent to Date

$2,477,825 = 19.4%

Schedule

Estimated 1,461 Calendar Days

285 Calendar Days since NTP

(as of February 28, 2020)

___

19.5 % Time Elapsed

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*ISC = Interim Substantial Completion   **FC = Final Substantial Completion

Task 6: CIP Validation
Lump Sum Task

GLWA FISCAL YEAR

				Projects Validated																			

2019 | **2020** | **2021** | **2022** | **2023**

A M J | J A S O N D | J F | M A M J | J A S O N D | J F M A M J | J A S O N D | J F M A M J | J A S O N D | J F M A M J

| Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 |

Prioritize CIP Projects

NTP: 5/20/19

5 Year CIP   5 Year CIP   5 Year CIP   **FC: 5/19/23

Key Progress

- Continued review of 2021-2025 CIP BCEs and BCE Database
- Conducted Workshops with Water and Wastewater to review first year's CIP Validation And outline Validation Plan for Year 2
- Ongoing discussions with Water Group for active project statuses
- Review of current Integrated Master Schedule

Budget

Total

$2,381,024

Spent to Date
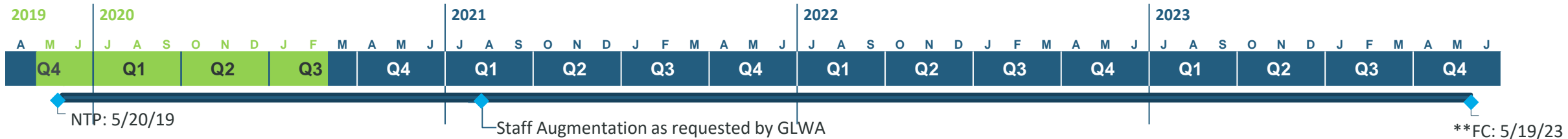
$471,256 = 19.8%

Schedule

Estimated 1,461 Calendar Days

285 Calendar Days since NTP

(as of February 28, 2020)

19.5 % Time Elapsed

Task 7 & 9: Staff Augmentation
Time & Materials

GLWA FISCAL YEAR

2019	2020				2021				2022				2023			
Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4

NTP: 5/20/19

Staff Augmentation as requested by GLWA

**FC: 5/19/23

Key Progress

- Completed Long Term Control Plan RFP
- Provided Recommendations for D/B 150 Raw Water Intake Raw Water Project
- Submitted Scope of Work for WRRF Pilot Research Plant
- Provided Engineering, Inspection, and CADD Resources as Requested

Budget

Total Task 7
$31,459,764
Spent to Date
$760,122 = 2.4%
Total Task 9
$1,534,586
Spent to Date
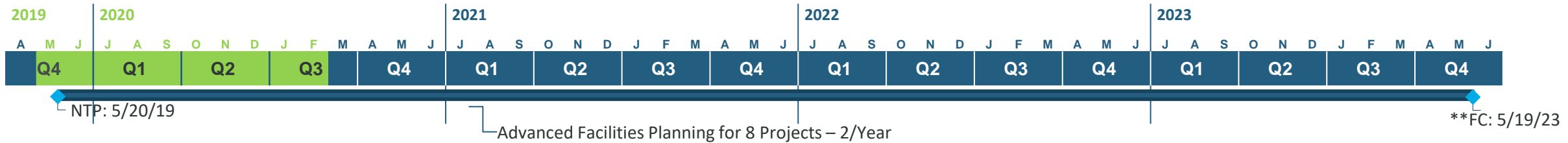**$6,855 = 0.5%**

Schedule

Estimated 1,461 Calendar Days

285 Calendar Days since NTP
(as of February 28, 2020)

19.5 % Time Elapsed

Task 8: Advanced Facilities Planning (AFP)
Lump Sum Task

GLWA FISCAL YEAR

2019	2020			2021					2022				2023			
Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4

NTP: 5/20/19

Advanced Facilities Planning for 8 Projects – 2/Year

**FC: 5/19/23

Key Progress

- Developed a Proposal to Prepare a Basis of Design (BOD) Report for the Oakwood District Intercommunity Relief Sewer

Budget

Total

$2,006,563
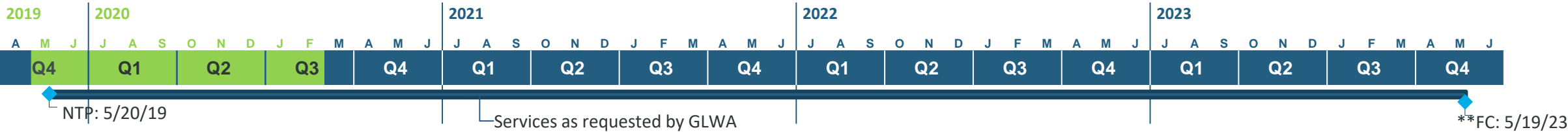
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Spent to Date

$70,066 = 3.5%

Schedule

Estimated 1,461 Calendar Days

285 Calendar Days since NTP

(as of February 28, 2020)

———

19.5 % Time Elapsed

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Task 10: Enterprise-wide Energy Optimization and Sustainability Planning
Lump Sum Task

GLWA FISCAL YEAR

2019	2020			2021				2022				2023			
A M J	J A S O N D	J F M	M A M J	J A S O N D	J F M A M J	J A S O N D	J F M A M J	J A S O N D	J F M A M J	J A S O N D	J F M A M J	J A S O N D	J F M A M J		J
Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3 Q4

NTP: 5/20/19

Services as requested by GLWA

**FC: 5/19/23

Key Progress

- Not started

Budget

Total

$438,900

Spent to Date

$0

Schedule

Estimated 1,461 Calendar
285 Calendar Days since NTP
(as of February 28, 2020)

19.5 % Time Elapsed

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*ISC = Interim Substantial Completion   **FC = Final Substantial Completion

Questions