Sponsored by: Williams

CITY OF MARATHON, FLORIDA
RESOLUTION 2026-91

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF MARATHON, FLORIDA APPROVING THE ADOPTION OF DEEP INJECTION WELL FACILITIES PLAN AMENDMENT No. 1 AND AUTHORIZATION FOR FDEP SRF SUBMISSION TO THE FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION'S STATE REVOLVING FUND LOAN PROGRAM; AUTHORIZING THE CITY MANAGER TO EXECUTE THE AGREEMENT, AND PROVIDING FOR CONFLICTS, SEVERABILITY, AND AN EFFECTIVE DATE.

WHEREAS, the City of Marathon has adopted a Deep Injection Well Facilities Plan, and

WHEREAS, the City of Marathon submitted a request for inclusion to the Florida Department of Environmental Protection State Revolving Fund Loan Program; and

WHEREAS, the City was directed by FDEP to amend the facilities plan; and

WHEREAS, the City of Marathon, wishes to approve Amendment No.1 to the Deep Injection Well Facilities Plan in order to qualify for funding in October.

NOW, THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF MARATHON, FLORIDA, THAT:

Section 1. The above recitals are true and correct and incorporated herein.

Section 2. The City Council hereby approves the Deep Injection Well Facilities Plan Amendment No. 1 and Authorization for FDEP SRF Submission FDEP. The amendment is attached as Exhibit "A" together with such non-material changes as may be acceptable to the City Manager and approved as to form by the City Attorney, is hereby approved. The City Manager is authorized to execute the amendment.

Section 3. This resolution shall take effect immediately upon its adoption.

PASSED AND APPROVED BY THE CITY COUNCIL OF THE CITY OF MARATHON, FLORIDA, THIS 16TH DAY OF SEPTEMBER 2026.

THE CITY OF MARATHON, FLORIDA

Lynny Del Gaizo, Mayor

YES: Still, Landry, Matlock, Del Gaizo
NOES: None
ABSENT: Struyf
ABSTAIN: None

ATTEST:

Diane Clavier

Diane Clavier, City Clerk

(City Seal)

APPROVED AS TO FORM AND LEGALITY FOR THE USE AND RELIANCE OF THE CITY OF MARATHON, FLORIDA ONLY:

City Attorney

Deep Injection Well Facilities Plan Amendment No. 1

Prepared for the Florida Department of Environmental Protection
Clean Water State Revolving Fund Program

Prepared for:
The City of Marathon
9805 Overseas Highway
Marathon, FL 33050

Prepared by:
Apex Companies, LLC

September 2026

Table of Contents

Executive Summary **1**
Project Need and Planning Background 1
Selected Alternative and Remaining Project Phases 1
Phase IVA – Remote WWTP Pumping and Storage Facilities 1
Phase IVB – Area 6 Regional Facility 2
Phase V – Deep Injection Well and Monitoring Well 2
Project Cost and Funding Strategy 2
Environmental and Resilience Considerations 2
Public Participation and Recommendation 3
Conclusions 3

1 Introduction **4**
1.1 Project Sponsor and Planning Area 4
1.2 Project Need 5
1.3 Amendment Purpose and Scope 5
1.4 Relationship to the 2023 Facilities Planning Record 6
1.5 Planning Period and Design Horizon 6

2 Existing System and Prior Planning **7**
2.1 Existing Wastewater Facilities 7
2.2 Existing Effluent Disposal 7
2.3 Existing Residuals Management 8
2.4 November 2023 Alternatives Analysis 8
2.5 City Selection of Alternative 1A 9
2.6 Consent Decree and Permit Conditions 9
2.7 Phased Regional Implementation 10

3 Design Development & Basis **12**
3.1 Hydraulic Model 12
3.2 Pump Selection and Disinfection 12
3.3 Storage and Disinfection 13
3.4 Backup Disposal and Continuous Operation 13
3.5 Mudwell Design Basis 13
3.6 Area 6 Process Integration Basis 14
3.7 Structural, Flood, Wind, and Corrosion Criteria 15
3.7.1 Flood and elevation. 15
3.7.2 Structural and wind. 15
3.7.3 Corrosion resistance. 15
3.7.4 Operational continuity. 15

4 Recommended Facilities **16**
4.1 Regional System Function 16
4.2 Phase IVA - Remote Plant Effluent Management Improvements 16
4.2.1 Area 3 WWTP 16
4.2.2 Area 4 WWTP 19

4.2.3 Area 5 WWTP 21
4.2.4 Area 7 WWTP 22
4.2.5 Phase IVA Instrumentation & Operation Controls 24
4.3 Phase IVB - Area 6 Integrated Facility Improvements 24
4.3.1 Regional Effluent Receiving and Deep-Well Pumping 26
4.3.2 Area 6 Treatment-Support Improvements 26
4.3.3 Centralized Residuals Receiving, Thickening, Storage, and Dewatering 26
4.3.4 Common Electrical, Control, Operations, and Resilience Infrastructure 27
4.3.5 Area 6 Facility Space and Construction Interfaces 27
4.4 Phase V – Deep Injection Well and Monitoring Well 28

5 Alternatives & Cost Effectiveness 30
5.1 Evaluation Method 30
5.2 Regional Baseline Alternatives 30
5.3 Phase IVA Hydraulic and CCC Configuration Alternatives 31
5.4 Area 3 Backup-Well and Construction-Sequence Alternatives 32
5.5 Mudwell Alternatives 33
5.6 Area 6 Backup Shallow Well Alternatives 34
5.7 Area 6 Integrated Facility Alternatives 35
5.8 Residuals Management and Dewatering Alternatives 36
5.9 Phase V Well and Monitoring Configuration 39
5.10 Selected Alternatives Summary 39

6 Project Costs, Useful Life, and Financial Requirements 41
6.1 Phase IVA Cost Estimate 41
6.2 Phase IVB Cost Estimate 42
6.3 Phase V Cost Estimate 43
6.4 Total Program Cost 43
6.5 Useful Life and Repair/Replacement Planning 44
6.6 Operation and Maintenance Cost Framework 45
6.7 Funding Sources 46
6.8 Capital Financing Plan & Financial Feasibility 47
6.9 Fiscal Sustainability and Asset Management 48

7 Environmental Review 49
7.1 Prior Environmental Record 49
7.2 Existing Land Use and Disturbance 49
7.3 Wetlands, Surface Waters, and Coastal Resources 49
7.4 Threatened and Endangered Species 50
7.5 Cultural and Historic Resources 50
7.6 Environmental Justice and Community Effects 50
7.7 Construction-Phase Controls 51
7.8 Environmental Determination 51

8 Floodplain, Resilience, and Climate Considerations 52
8.1 Floodplain Setting and Alternatives 52
8.2 Vulnerable Assets and Mitigation 52

8.2.1 Area 3 Integrated Tank and Pump Facilities 52
8.2.2 Area 4 Integrated Tank and Pump Facilities 53
8.2.3 Area 5 Holding Tank and Pump Facilities 53
8.2.4 Area 7 Integrated Tank and Pump Facilities 53
8.2.5 Area 6 Treatment, Storage, and Deep Well Pump Facilities 53
8.2.6 Area 6 Operations and Electrical Building 53
8.2.7 Phase V Deep Injection Well and Monitoring Well 54
8.3 Wind, Storm Surge, and Marine Exposure 54
8.4 Power, Communications, and Operational Resilience 54
8.5 Sea-Level Rise and Long-Term Adaptation 54
8.6 Public Notice of Floodplain Effects 55
9 Public Participation and City Adoption 56
9.1 Prior Planning Participation 56
9.2 Amendment Public-Meeting Approach 56
9.3 Public-Meeting Presentation Content 56
9.4 City Council Adoption 57
10 Permitting, Implementation, Procurement, and SRF Compliance 58
10.1 Permit Status 58
10.2 Procurement and SRF Compliance 59
10.3 Construction Sequencing and Continuous Operation 59
10.4 Operations, Staffing, and Training 59
10.5 Federal and State Funding Requirements 59
11 Conclusions and Recommendation 60

Supporting Data

Tables

Table 1. Existing Facilities and regional Project Roles 7
Table 2. 2023 Regional Alternatives Results 8
Table 3. Project Phases, Principal Scope, and Current Implementation Status 10
Table 4. Area 6 Solids Processing Return Flow Planning Cases and Hydraulic Loading 14
Table 5. Effluent Transfer Pump Inventory 24
Table 6. Regional Baseline Alternatives Comparison 30
Table 7. Phase IVA Hydraulic Configuration Alternatives 31
Table 8. Preliminary Phase IVA Life-Cycle Comparison 31
Table 9. Area 3 Backup-Well and Sequencing Alternatives 32
Table 10. Area 3 Backup-Well and Sequencing Life Cycle Cost Analysis Summary 32
Table 11. Mudwell Life-Cycle Screening Alternatives 33
Table 12. Mudwell Alternative Life Cycle Cost Analysis 34
Table 13. Area 6 Backup Shallow Well Alternatives 34
Table 14. Area 6 Backup Shallow Wells Life Cycle Cost Analysis 35
Table 15. Area 6 Integrated Facility Alternatives 35
Table 16. Residuals Management Alternatives - 30-Year Life-Cycle Cost 36
Table 17. Synagro Escalation Sensitivity 37
Table 18. Recommended Design-Development Alternatives 39
Table 19. Phase IVA Cost Estimate Summary 41
Table 20. Phase IVB Cost Estimate Summary 42
Table 21. Phase V Cost Estimate Summary 43
Table 22. Total Program Cost Estimate Summary 44
Table 23. Useful-Life and Repair/Replacement Schedule 45
Table 24. Operation and Maintenance Costs and Planning Assumptions 46
Table 25. Current Identified Funding Sources, Status, and Amounts 46
Table 26. Current Project Funding Summary 47
Table 27. Capital Financing Plan and Financial Feasibility Summary 48
Table 28. Floodplain Alternatives 52
Table 29. Summary of DIW Program Permitting Status 58

Figures

Figure 1. Aerial View of City of Marathon 4
Figure 2. Project Phasing and Major Facilities 11
Figure 3. Selected Force Main Diameters and Standardized Pump Sizes 12
Figure 4. Area 3 WWTP Proposed Process Flow Diagram 18
Figure 5. Area 3 WWTP Proposed Site Plan 18
Figure 6. Area 4 WWTP Proposed Process Flow Diagram 20
Figure 7. Area 4 WWTP Proposed Site Plan 20
Figure 8. Area 5 WWTP Proposed Process Flow Diagram 21
Figure 9. Area 5 WWTP Proposed Site Plan 22
Figure 10. Area 7 WWTP Proposed Process Flow Diagram 23
Figure 11. Area 7 WWTP Proposed Site Plan 23
Figure 12. Approximate Boundary of the City's Area 6 Land 24
Figure 13. Area 6 Facility Proposed Site Plan 25

Figure 14. Area 6 Facility Proposed Process Flow Diagram 25
Figure 15. Current Phase V injection-well and monitoring-well construction drawings 29
Figure 16.Thirty-year present-worth comparison of residuals management alternatives. 39
Figure 17.Estimated first-year truck movements for liquid hauling and dewatered cake. 39

Appendices

Appendix A City Council Meeting Minutes & Legal Documentation
Appendix B Program Cost Estimates
Appendix C Sludge Analysis
Appendix D Life Cycle Cost Analysis
Appendix E Capital Financing Plan and Financial Feasibility
Appendix F City Council Adoption of Facilities Plan Amendment No.1

Executive Summary

Project Need and Planning Background

The City of Marathon owns and operates five advanced wastewater treatment plants that currently rely on shallow injection wells for primary effluent disposal. Following the U.S. Supreme Court's *County of Maui* decision, FOLKs – Friends of the Lower Keys, LLC challenged the City's shallow-well disposal practice. The City disputed the allegations and did not admit liability, but elected to settle the litigation and implement a permanent regional disposal solution.

The federal court entered the Consent Decree on February 23, 2024. It requires the City to construct the infrastructure necessary to implement Alternative 1A and, no later than **December 31, 2028**, commence Deep Injection Well disposal of all AWT effluent and permanently cease routine shallow-well use. Thereafter, the shallow wells may be used only for limited backup conditions identified in the Consent Decree. FDEP's wastewater permitting record incorporates the same regional approach and schedule. The project is therefore necessary to meet the City's court-ordered and permitting obligations, address nearshore-water-quality concerns, improve reliability, and preserve authorized backup disposal.

This Facilities Plan Amendment supplements, and does not replace, the November 9, 2023 *Wastewater Effluent Disposal Options Planning Document* prepared by Juturna Consulting, LLC. That effort evaluated twelve regional disposal alternatives and remains the controlling regional alternatives analysis and planning record. Alternative 1A contemplated a City-owned Deep Injection Well at Area 6, approximately 13 miles of regional effluent transmission main, expanded or new pump stations, and potentially additional effluent storage.

Subsequent modeling, permitting, design development, and cost reconciliation defined the plant-by-plant storage, pumping, disinfection, backup-disposal, construction-sequencing, Area 6 integration, and resilience facilities needed to implement that concept. This amendment incorporates the prior planning and environmental record by reference and documents the refined facilities, alternatives, costs, and implementation requirements for Phases IVA, IVB, and V.

Selected Alternative and Remaining Project Phases

Alternative 1A remains the selected and required regional disposal alternative.

Although the 2023 evaluation ranked the Crawl Key alternative slightly higher based on anticipated co-location and cost sharing, the City Council identified the City-owned Area 6 site as the primary location, and the Consent Decree requires Alternative 1A unless the parties mutually agree otherwise in writing. The Crawl Key concept ultimately offered only a constrained site area and no cost sharing. Area 6 provides full City control of the property, schedule, well, receiving facility, operations, and long-term maintenance.

Phases I through III provide the regional transmission main and are under contract or construction. The remaining phases refine implementation of Alternative 1A rather than create a new disposal alternative:

Phase IVA – Remote WWTP Pumping and Storage Facilities

Provides the facilities needed to collect, store, monitor, and pump AWT effluent from Areas 3, 4, 5, and 7 into the regional transmission main. The work includes new prestressed-concrete tanks; triplex effluent pumping at Areas 3 and 4; duplex effluent pumping at Areas 5 and 7; integrated disinfection and storage at Areas 3, 4,

and 7; a holding-only tank at Area 5; replacement backup shallow wells at Area 3; 316 stainless-steel mudwells at Areas 3, 4, and 7; and associated piping, instrumentation, electrical improvements, process-water systems, SCADA integration, testing, and startup. Construction sequencing will maintain continuous treatment and lawful effluent disposal while the new facilities are placed in service.

Phase IVB – Area 6 Regional Facility

Creates the integrated Area 6 regional receiving and operating facility. Principal elements include approximately 458,000 gallons of regional effluent storage; four initially installed Deep Injection Well pumps arranged as three duty and one standby; two new 18-inch backup shallow wells; equalization; conversion of the existing aerobic digester to a fourth SBR; disc filtration, disinfection, and common blowers; and centralized residuals receiving, membrane biothickening, storage/digestion, and City-owned mechanical dewatering. The phase also includes an elevated, pile-supported operations, electrical, and laboratory building; standby power; MCCs; controls; SCADA; site-civil work; and hurricane, flood, and corrosion-resilience features.

Phase V – Deep Injection Well and Monitoring Well

Provides the Deep Injection Well and Monitoring Well at Area 6. The current UIC application seeks authorization to construct and test an exploratory Deep Injection Well intended to fulfill the Area 6 disposal obligation, subject to the Consent Decree and FDEP approval. The planning basis includes an injection well extending to approximately 3,600 feet below land surface and an associated monitoring well. Final injection and monitoring intervals and permanent operating authorization will be established through drilling, testing, and FDEP review.

Project Cost and Funding Strategy

The current identified total cost for the complete regional program is approximately $81.11 million, including approximately $61.19 million for Phases IVA, IVB, and V. The current phase totals are approximately $12.41 million for Phase IVA, $26.94 million for Phase IVB, and $21.84 million for Phase V.

The City's financing strategy combines grants and state appropriations, existing and future State Revolving Fund assistance, wastewater-system revenues, and temporary bridge financing. Grant and appropriation proceeds will be applied to eligible project costs before long-term borrowing is finalized, and the City's temporary line of credit is not treated as permanent project funding.

The City's utility rate and financial consultant, Raftelis, prepared an updated financial forecast and Capital Financing Plan to evaluate the City's ability to support the anticipated SRF financing for the regional Deep Injection Well Program. For financial-planning purposes, the analysis models $60.0 million of SRF capital cost, resulting in estimated annual SRF debt service of approximately $4.10 million. The financial forecast projects combined wastewater and stormwater debt-service coverage above the identified 1.20 minimum coverage target throughout the forecast period. The financial forecast incorporates projected future wastewater rate adjustments and other available revenue mechanisms to maintain revenue sufficiency and support the City's long-term SRF obligations. Future rate adjustments remain subject to City action, and alternative funding mechanisms may be considered as the financing program is implemented. The detailed Capital Financing Plan and supporting financial forecast are included in Appendix E.

Environmental and Resilience Considerations

The refined facilities do not change the selected regional alternative, create a new service area, or require expansion beyond existing or cleared City utility property. No direct wetland fill or surface-water work is anticipated within the permanent facility footprint. Temporary construction effects will be controlled through

limits of disturbance, erosion and sediment control, spill and drilling-fluid containment, species and archaeological procedures, public-safety measures, and restoration.

The principal long-term environmental benefit is elimination of routine shallow-well disposal and transfer of AWT effluent to a deep injection zone. Because Marathon is a low-lying coastal community and no practicable outside-floodplain location is available, the selected strategy is to harden critical assets in place. Pile-supported and uplift-resistant structures, elevated or protected electrical and control equipment, corrosion-resistant materials, standby power, redundant pumps and storage, backup disposal, and hurricane operating provisions improve flood, wind, storm-surge, and operational resilience.

Public Participation and Recommendation

Public participation builds upon the November 2023 stakeholder outreach and City Council alternatives presentation, as well as subsequent public updates regarding implementation of the regional Deep Injection Well project. The City has presented the project, remaining facilities, current project costs, funding strategy, implementation schedule, and related project impacts in a public City Council setting with an opportunity for public comment. Project information has also remained available through the City's project webpage. Formal City Council adoption of this Facilities Plan Amendment will be documented by resolution, with the executed resolution included in Appendix F as part of the final SRF planning record.

Conclusions

Based on the completed planning, alternatives, cost, financial-feasibility, environmental, and public-participation record summarized in this amendment, Apex recommends formal City Council adoption of this Facilities Plan Amendment, reaffirmation of Alternative 1A, authorization for submission to FDEP for SRF planning and environmental review and funding consideration, and continued implementation of Phases IVA, IVB, and V. The executed adoption resolution will be incorporated into Appendix F as part of the final SRF planning record.

1 Introduction

This section establishes the planning purpose, project need, service area, regulatory framework, and relationship of the amendment to the November 2023 planning document.

1.1 Project Sponsor and Planning Area

The project sponsor is the City of Marathon, Florida. The planning and service area is the City's existing wastewater utility service area in Monroe County, Florida. The City consists of a linear series of islands connected by U.S. Highway 1, with the Atlantic Ocean along the ocean side and Florida Bay/Gulf waters along the bay side. The current SRF Request for Inclusion identifies a population served of 10,039. The project does not create a new wastewater service area or induce expansion outside the existing City utility service boundary.

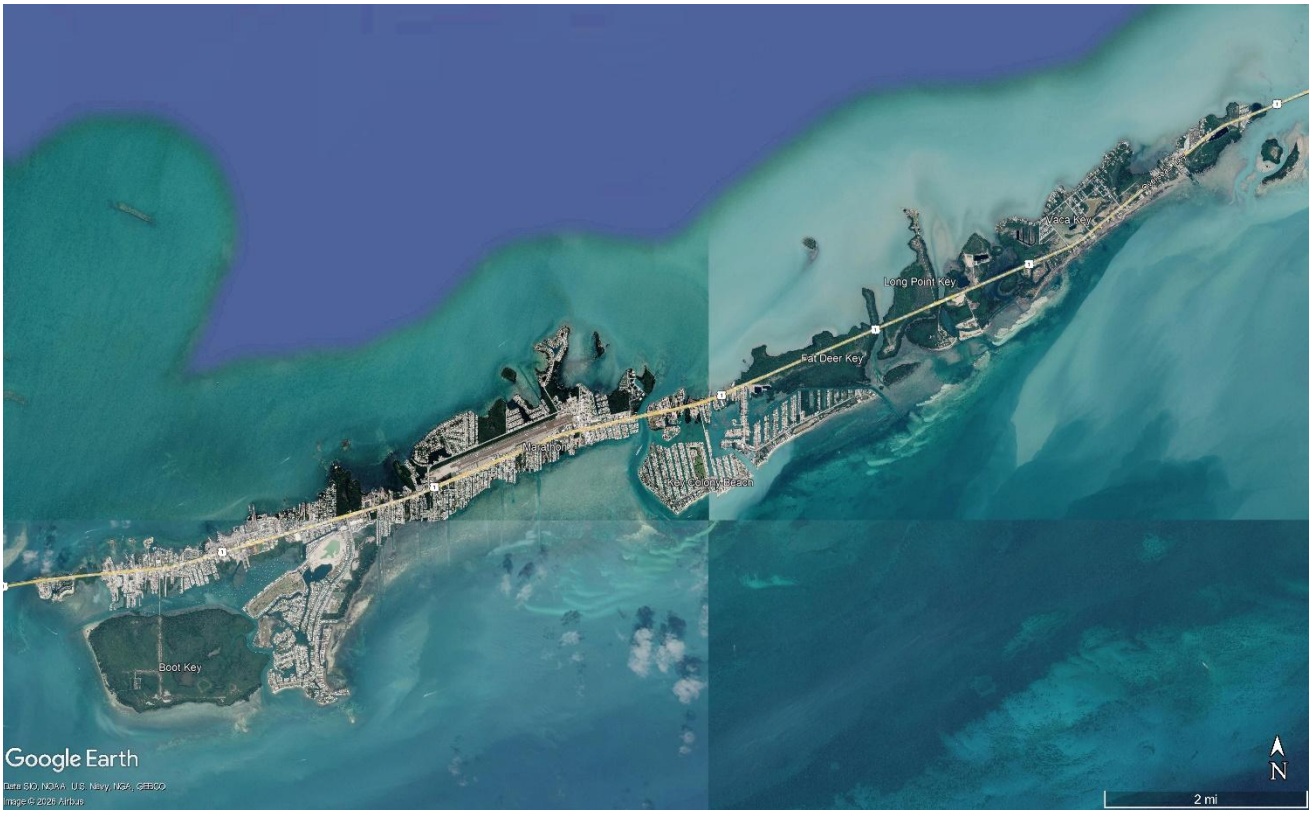


Figure 1. Aerial View of City of Marathon

The City owns and operates five advanced wastewater treatment plants: Areas 3, 4, 5, 6, and 7. These facilities receive wastewater from seven collection-system service areas and treat the flow to AWT standards before reuse or underground injection. The plants are dispersed from the western end of Marathon to Grassy Key, creating the need for a regional force-main and pumping system to convey treated effluent to the Area 6 deep-well site.

1.2 Project Need

The City currently uses shallow Class V injection wells at the individual plants for primary effluent disposal. FOLKs - Friends of the Lower Keys, LLC filed a federal Clean Water Act and Endangered Species Act citizen suit challenging the shallow-well disposal practice after the U.S. Supreme Court's County of Maui decision. The City disputed the allegations and did not admit liability, but elected to settle the litigation and implement a permanent regional disposal solution.

The February 2024 Consent Decree requires the City to construct all infrastructure necessary to convey all AWT effluent to the deep injection well described as Alternative 1A in the November 2023 feasibility study. By December 31, 2028, the City must commence deep-well disposal of all AWT effluent and permanently cease routine shallow-well use. The shallow wells may remain available only for limited backup use when the deep-well system is unavailable because of equipment failure, power failure, mechanical-integrity testing, or repair. The Decree provides for stipulated payments of $1,000 per day for missed compliance with the deep-well deadline, subject to its terms, and states that financial inability is not force majeure. Supporting City Council meeting records and related legal documentation are provided in Appendix A.

FDEP has also incorporated deep-well implementation schedules into the domestic wastewater permitting record. Accordingly, the recommended project is necessary to meet a federal court-ordered settlement, align the City's wastewater permits with the regional disposal strategy, protect nearshore water quality, improve system reliability, and preserve backup disposal capability during regional-system outages.

1.3 Amendment Purpose and Scope

The November 9, 2023 Wastewater Effluent Disposal Options Planning Document prepared by Juturna Consulting, LLC evaluated twelve regional effluent-disposal alternatives. Alternative 1A contemplated a City-owned deep injection well at Area 6, approximately 13 miles of regional effluent transmission main, expanded or new pump stations, and potentially additional effluent storage. It did not provide the detailed plant-by-plant hydraulic facilities, construction sequencing, treatment-support improvements, or Area 6 process integration that could only be established during subsequent design and permitting.

FDEP's July 2026 SRF review accepted the City's Phase IVA cost reconciliation and the plan, schedule-of-values, aerial, permit-status, and advertisement responses. The remaining planning issues included the Area 3 replacement backup wells, the Area 3, Area 4, and Area 7 CCC/mudwell and storage refinements, and the Phase IVB Area 6 treatment and residuals facilities. This amendment addresses those items and presents the complete recommended facilities for Phases IVA, IVB, and V.

- Incorporates the 2023 Wastewater Effluent Disposal Options Planning Document and prior environmental record by reference.
- Explains why Alternative 1A remains the selected regional disposal alternative and why the City did not implement the slightly higher-ranked Crawl Key alternative.
- Documents the hydraulic and operational basis for the Phase IVA storage, disinfection, pumping, backup-well, and mudwell improvements.
- Presents the Area 6 improvements as one integrated receiving, treatment-support, effluent-management, residuals-management, electrical/control, and operating facility.
- Includes alternatives and planning-level life-cycle cost comparisons for the design-development components.
- Updates project cost, implementation, permitting, environmental, flood-resilience, public-participation, financial-feasibility, and SRF compliance information.

1.4 Relationship to the 2023 Facilities Planning Record

This document is an amendment and supplement to, not a replacement for, the November 9, 2023 Wastewater Effluent Disposal Options Planning Document prepared by Juturna Consulting, LLC with assistance from ASRus and Verdantas. The Juturna report remains the controlling regional alternatives analysis. This amendment carries forward its planning area, population and flow projections, regional alternative evaluation, environmental background, stakeholder outreach, and selection framework, except where later Council records, permits, modeling, DMRs, cost records, or design documents provide more current project-specific information.

1.5 Planning Period and Design Horizon

The Juturna regional analysis used a 30-year assessment beginning in 2030 and projected City wastewater production to approximately 1.65 MGD by 2060. This amendment retains the 30-year comparison period. The component analyses present constant 2026-dollar life-cycle costs at a 0% real discount rate for consistency with the prior planning method, a 3% real-discount present-worth comparison, and a 0% to 5% sensitivity. The separate residuals analysis uses a 3% present-worth basis and evaluates contractor-service escalation because escalation timing materially affects that procurement decision. The Capital Financing Plan and supporting financial forecast separately evaluate the anticipated SRF financing structure, interest-rate assumptions, repayment timing, annual debt service, pledged revenues, and debt-service coverage; those financing assumptions are distinct from the discount-rate assumptions used for the facilities-planning life-cycle comparisons. Useful lives and repair/replacement intervals for the evaluated structures, wells, pumps, coatings, and related equipment are identified in the applicable life-cycle appendices and are carried into the City's useful-life and fiscal-sustainability documentation.

2 Existing System and Prior Planning

The existing plants, disposal facilities, prior planning decisions, and phased regional system establish the baseline for the amendment.

2.1 Existing Wastewater Facilities

Table 1 combines permitted facility information with the flow scenarios evaluated in the February 19, 2025 Deep Injection Well Force Main and Pump Design hydraulic modeling report. Area 6 currently has a permitted AADF capacity of 0.200 MGD. The selected Phase IVB basis converts the existing aerobic digester to a fourth SBR and proposes a 0.250-MGD permitted capacity; the increase is intended to accommodate residuals-process return flows and associated treatment loading, subject to the process design report and FDEP permit modification.

Table 1. Existing Facilities and regional Project Roles

Facility	Permitted Capacity / Planning Basis	Existing Disposal / Relevant Facilities	Regional Project Role
Area 3 WWTP	0.417 MGD permitted capacity	AWT, existing CCC/reuse structures, shallow wells, coated carbon-steel mudwell	103,000-gal integrated tank; triplex effluent pumps; two 18-in backup wells; 316SS mudwell
Area 4 WWTP	0.400 MGD permitted capacity	AWT, existing CCC/mudwell assemblies and shallow wells	77,000-gal integrated tank; triplex effluent pumps; 316SS mudwell
Area 5 WWTP	0.450 MGD permitted capacity;	AWT; existing CCCs suitable for continued service; shallow wells	60,000-gal holding tank; duplex effluent pumps; new process-water system
Area 6 WWTP	0.200 MGD current permitted capacity 0.250 MGD proposed basis after fourth-SBR conversion	Three SBRs, existing digester, filtration/disinfection, shallow wells	Regional receiving and 458,000-gal storage; DIW pumps; fourth SBR; integrated residuals and operations systems
Area 7 WWTP	0.200 MGD permitted capacity	Three SBRs, filters/CCCs, 5,300-gal coated carbon-steel mudwell, shallow wells	36,000-gal integrated tank; duplex effluent pumps; 316SS mudwell; new process-water system

2.2 Existing Effluent Disposal

Treated effluent not used for reuse is currently disposed through shallow Class V injection wells at the individual plants. These wells will continue as primary disposal only during regional-system construction. After the deep well is placed in service, shallow-well operation will be limited to backup conditions established by the Consent Decree and the applicable FDEP permits. The transition therefore requires continuous plant operation and uninterrupted legal disposal during construction and cutover.

The regional system is designed around storage and controlled pumping rather than direct instantaneous discharge from each plant into the long transmission main. The storage tanks decouple treatment-plant production from regional pump operation, absorb simultaneous high-flow conditions, provide hydraulic stability, allow staged pump operation, and support outage response.

2.3 Existing Residuals Management

Residuals are currently managed through a combination of interplant transfer, contractor-operated mobile dewatering, and off-site hauling to a permitted composter or other accepting facility. The Synagro invoices use "dry ton" as a dry-solids-equivalent billing unit: the wet cake weight is multiplied by measured cake solids to determine the billable dry-solids mass. It does not mean that the physical cake is 100% dry. Detailed load tickets show an overall weighted cake concentration of approximately 20.65% total solids and a 2024-2025 weighted concentration of approximately 19.15% total solids.

The supplied DMR record indicates a 2023-2025 systemwide average of approximately 354.8 dry tons per year; January-June 2026 annualizes to approximately 390.1 dry tons per year. Seventeen supplied Synagro invoices/service campaigns total $1,054,482.65 for 584.888 dry-solids-equivalent tons, with a weighted historical rate of approximately $1,802.88 per dry ton. The current documented bundled rate is $1,888.33 per dry-solids-equivalent ton and includes dewatering and transportation/final disposition services. At the 2023-2025 DMR basis, the current rate normalizes to approximately $669,985 per year before future escalation. The detailed 2019-2020 campaigns processed approximately 1.176 million gallons of liquid residuals and support an invoice-calibrated incoming concentration of approximately 1.93% total solids. Because current feed solids can vary, the process analysis also retains a conservative 1.0% feed-solids case for hydraulic sizing. The City's 2017-2018 centralized-residuals objective and the current DMR/invoice record support evaluating a permanent Area 6 receiving, thickening, storage, and dewatering facility rather than continuing a fully mobile/distributed arrangement.

The City has pursued a centralized residuals-management concept since approximately 2017-2018 to improve operations and logistics. The concept centralizes receiving, thickening, storage/digestion, and dewatering at Area 6. The Phase IVB geotechnical report states that the project concept dated May 2, 2018 included a liquid storage tank and centrifuge, supporting the conclusion that centralized dewatering predates the current SRF amendment.

The DMR, contractor-service, residuals-production, and solids-concentration data supporting these planning values are summarized in Appendix C.

2.4 November 2023 Alternatives Analysis

The November 9, 2023 Juturna planning document evaluated twelve alternatives, including one or more deep injection wells, public-access reuse, indirect potable reuse, direct potable reuse, bulk reuse, and combinations. Alternative 1A placed a single deep injection well on City-owned property at Area 6 and required approximately 13 miles of effluent transmission main, expanded pumps, and potentially additional storage. Alternative 1D placed a single well at Crawl Key and assumed comparable conveyance, pump, and storage needs.

Table 2. 2023 Regional Alternatives Results

Alternative	Concept	2023 Capital Cost	30-Year Life-Cycle Cost	Total Score / Rank
1A	Single DIW at Area 6	$43.0 million	$56.0 million	89.7 / Rank 2
1C	Two DIWs	$80.0 million	$95.0 million	78.4 / Rank 3
1D	Single DIW at Crawl Key	$43.0 million	$59.0 million	91.5 / Rank 1
Other alternatives	Reuse and potable-reuse variants	$111-$300 million	$160-$349 million	Lower combined rankings except Alternative 4 ranked 4

2.5 City Selection of Alternative 1A

Alternative 1D ranked slightly higher in the Juturna scoring because the planning team anticipated potential co-location and cost sharing with FKAA at Crawl Key. At the December 12, 2023 Council meeting, Juturna presented the alternatives; the minutes record that Council had narrowed the decision to Alternatives 1A and 1D and identified the City-owned Area 6 location as the primary option. At the same meeting, Council approved the final settlement with FOLKs by a 5-0 vote. The Council agenda and minutes are included in the source register and should be appended to the adoption record.

The federal court entered the Consent Decree on February 23, 2024. The Decree requires Alternative 1A unless the parties mutually agree in writing to change to Alternative 1D. Council advanced implementation actions on April 9, 2024. As FKAA's reverse-osmosis plans advanced, FKAA offered only a constrained site area and did not propose cost sharing. On June 24, 2024, the project team discontinued the Crawl Key implementation path and proceeded exclusively with the City-owned Area 6 site. Area 6 provides the City full control of the property, schedule, well, receiving facility, operations, and future maintenance.

2.6 Consent Decree and Permit Conditions

Implementation of the regional Deep Injection Well system is governed by the federal Consent Decree and coordinated with the City's FDEP domestic wastewater permits and associated administrative orders. These requirements establish the overall implementation schedule and significantly constrain the City's ability to delay permitting, procurement, or construction of the remaining project phases.

Under Paragraph 7 of the Consent Decree, the City is required to construct the infrastructure necessary to implement Alternative 1A and convey its AWT effluent to the regional Deep Injection Well. No later than December 31, 2028, the City must commence Deep Injection Well disposal of all AWT effluent and permanently cease routine use of the shallow injection wells. The shallow wells may thereafter be used only as backup when the Deep Injection Well is temporarily unavailable because of equipment failure, power failure, mechanical integrity testing, or repair. (*Consent Decree,* ¶ *7*).

The Consent Decree also establishes consequences and procedural requirements associated with potential schedule delays:

- **Paragraph 17** establishes stipulated payments of $1,000 per day for failure to meet the December 31, 2028 Deep Well Injection Project deadline, although the City may seek a reduction or waiver where the sole cause of delay is failure to obtain financing despite diligent efforts.
- **Paragraph 20** provides that financial inability does not constitute force majeure and requires the City to use best efforts to anticipate, avoid, and mitigate potential delays.
- **Paragraph 21** requires timely and complete permit applications and diligent pursuit of required governmental approvals before a permitting delay may support a force majeure claim.
- **Paragraph 22** similarly requires the City to commence and diligently pursue necessary procurement activities before a procurement or delivery delay may support a force majeure claim.
- **Paragraph 23** requires prompt notice of events that may affect the schedule, including initial notice within 72 hours after the City first becomes aware that an event may cause delay and a more detailed written explanation within 14 days.

The City's domestic wastewater permits and associated administrative orders are being coordinated with this regional implementation approach. Current FDEP permit actions provide for transition of primary effluent disposal from the individual shallow injection well systems to the regional Deep Injection Well and continued

use of the shallow wells for backup disposal following regional system startup. The applicable compliance schedules also identify December 31, 2028 for construction and operation of the regional deep-well system.

These requirements are particularly important to implementation planning. The City cannot rely on financing constraints as a basis for delaying the project and must continue to diligently advance permitting, procurement, and construction activities in order to preserve the ability to address qualifying delays under the Consent Decree. Accordingly, the City has advanced the regional program in phases, with portions of the force-main and facility program already in design, permitting, procurement, or construction and with the primary regional facilities located at the City-controlled Area 6 site.

For SRF planning purposes, this Facilities Plan Amendment documents the refined Phase IVA and Phase IVB facilities developed through hydraulic modeling, permitting, and detailed design and addresses the applicable alternatives, cost-effectiveness, useful-life, financing, environmental, public-participation, and implementation considerations. The amendment therefore supports continued implementation of the selected regional system while documenting the additional detail developed since completion of the original planning-level evaluation.

2.7 Phased Regional Implementation

The regional project was divided into phases to manage permitting, procurement, construction interfaces, cash flow, and the Consent Decree schedule. Phases I through III provide the transmission main from the remote plants to Area 6. Phases IVA, IVB, and V complete the storage, pumping, receiving, treatment-support, electrical/control, deep-well, monitoring, and commissioning facilities.

Table 3. Project Phases, Principal Scope, and Current Implementation Status

Phase	Principal Scope	Current Status / Role
I	Areas 3, 4, and 5 transmission main	Under construction; connects western plants toward Vaca Cut
II & IIIB	Area 7 and Vaca Cut-to-Coco Plum transmission main	Under contract / advancing; connects eastern plant and closes major regional segment
IIIA	Coco Plum / Area 6 transmission main	Under construction; delivers regional main to Area 6
IVA	Plant effluent storage and pump stations	Current amendment and SRF funding request
IVB	Area 6 Integrated Facility Improvements	Current amendment and SRF funding request
V	Deep injection well and monitoring well	Current amendment and SRF funding request

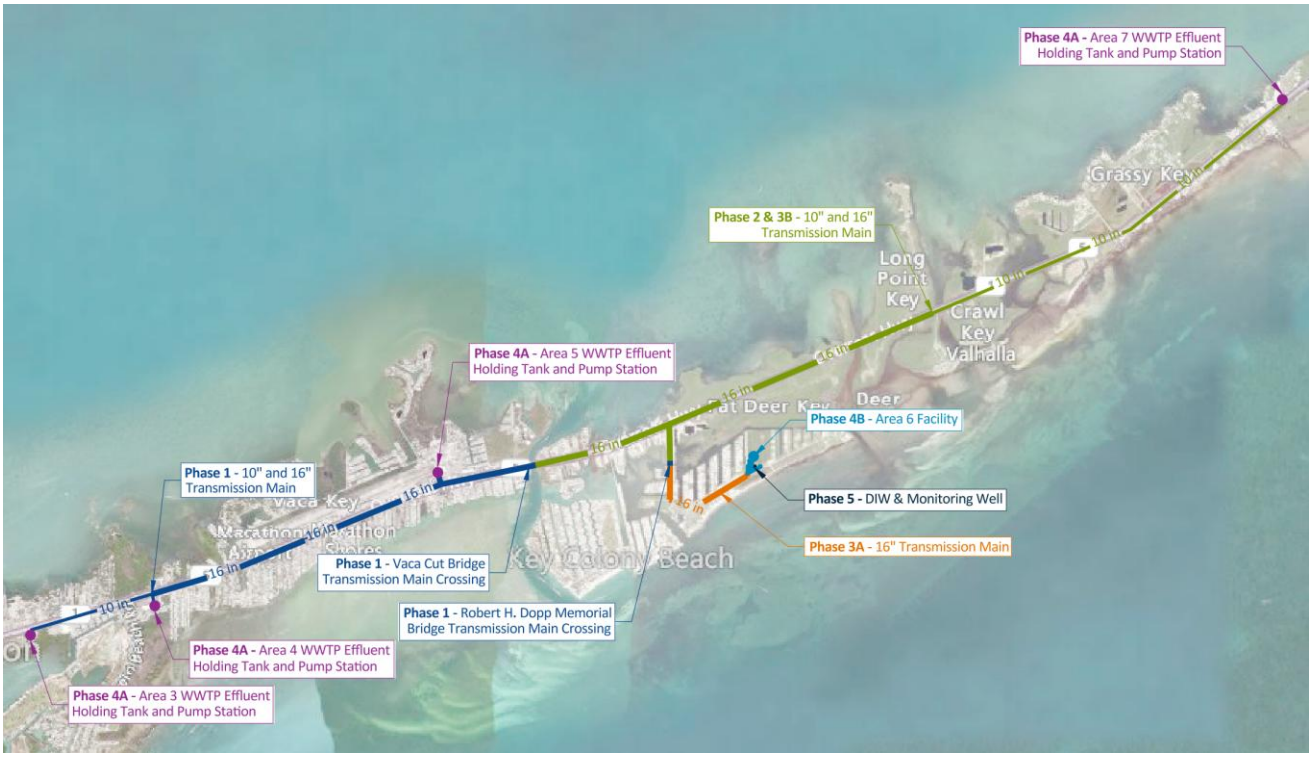


Figure 2. Project Phasing and Major Facilities

3 Design Development & Basis

Hydraulic modeling and detailed design refined the conceptual pump-and-storage elements anticipated in Alternative 1A into site-specific facilities.

3.1 Hydraulic Model

A SewerCAD model was developed to simulate the regional force-main system under permitted-capacity, observed average-flow, 2060 projection, highest-observed-day, and worst-case scenarios. The model evaluated flow, pump, pipe, wet-well, pressure, velocity, and outfall behavior over extended-period simulations. It also evaluated potential future connections from Duck Key and Key Colony Beach so that the principal force-main segments would not preclude a later regional tie-in. Those neighboring systems are not included in the present project scope, funding request, or service-area commitment.

The model found that Area 4, Area 5, Area 6, and Area 7 experienced their highest observed flows on November 15, 2023, demonstrating that systemwide peak conditions can occur concurrently during high tide, rainfall, and inflow/infiltration events. The design therefore cannot assume that individual plant peaks occur independently.

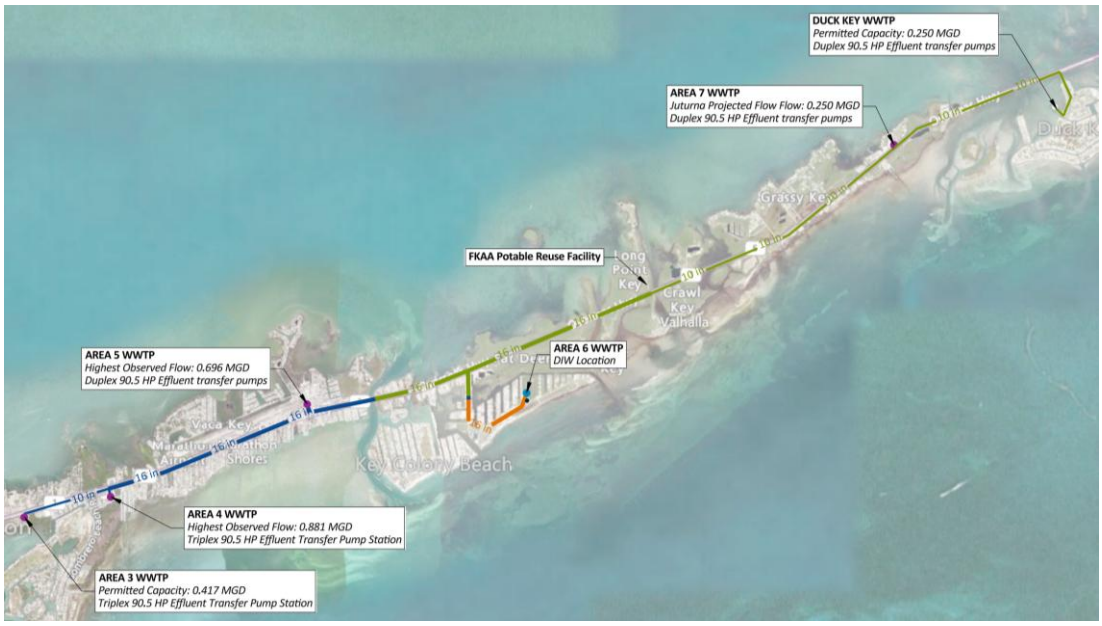


Figure 3. Selected Force Main Diameters and Standardized Pump Sizes

The hydraulic model served as a design-development tool for the regional conveyance system. Subsequent design and permitting further refined the plant-specific storage volumes, pump configurations, elevations, and operating controls. Accordingly, this Facilities Plan Amendment relies on the resulting force-main, pumping, and storage design basis rather than reproducing each individual hydraulic-model flow scenario. The recommended facilities incorporate storage and staged pumping to accommodate variable and concurrent plant operating conditions while maintaining stable regional-system operation.

3.2 Pump Selection and Disinfection

The model evaluated multiple pump curves and selected a standardized 90.5-horsepower Grundfos SE.56H.840.4.EX.60G.6 pump as the general basis. The manufacturer data identify a rated flow of

approximately 1,860 gpm, a rated head of 136.6 feet, 90.5 horsepower power input, 85 horsepower rated output, and 1,780 rpm. Standardization simplifies spare-parts inventory, training, maintenance, and replacement planning.

A single 90.5-horsepower pump did not keep pace with the modeled Area 4 peak. The model first tested a larger 174-horsepower unit, then demonstrated that two staged 90.5-horsepower pumps could meet the peak while preserving common equipment. The selected plant arrangements therefore use two duty pumps and one standby pump at Areas 3 and 4, and one duty pump and one standby pump at Areas 5 and 7. VFD operation, staged controls, and local/SCADA alarms provide operational flexibility.

Design-Development Finding
The need for additional storage and staged pumping is a direct refinement of Alternative 1A. It does not create a new disposal alternative; it provides the hydraulic facilities needed to make the selected regional system operate reliably under concurrent peak conditions.

3.3 Storage and Disinfection

During hydraulic development, the existing chlorine-contact chamber elevations at Areas 3, 4, and 7 were found to be too low to discharge by gravity into the required effluent holding volume without an additional transfer-pump system. Adding an intermediate pump train would create new electrical loads, controls, standby-power requirements, maintenance, cycling, outage modes, and life-cycle cost. The selected design instead integrates new chlorine-contact chambers and effluent holding at those sites, allowing the post-equalization process pumps to lift the water once into the elevated integrated structure. Area 5 can retain its existing CCC arrangement and therefore receives a separate holding tank only.

The tanks provide operating buffer, allow the remote effluent pumps to run at controlled rates, reduce short cycling, support staged pumping, and prevent the regional force main from being driven solely by instantaneous treatment-plant flow. Tank structures, access, coatings, instrumentation, mixing/turnover controls where required, and drainage are included in the construction documents.

3.4 Backup Disposal and Continuous Operation

The City cannot interrupt wastewater treatment or lawful effluent disposal while constructing the regional facilities. Existing or replacement shallow wells must remain available until the regional system has been tested and accepted.

At Area 3, the existing well and tank layout conflicts with the new tank footprint, requiring two new backup wells to be constructed and commissioned before the existing wells are abandoned and the final cutover/demolition occurs. The new 18-inch diameter is primarily a maintainability requirement so the City can use its bucket-auger equipment; the larger diameter also reduces clogging potential and improves reliability but is not intended to increase plant treatment capacity.

3.5 Mudwell Design Basis

The existing mudwells at Areas 3, 4, and 7 are coated carbon steel and are physically connected to filter/CCC assemblies that will be removed or reconfigured. The City reports three major coating cycles and approximately ten-year major-recoat intervals. The structures exhibit significant corrosion and would continue to require coating outages and repair if left in place. City coating records also show broader six-figure coating projects at several plants, including not-to-exceed amounts of $293,287 at Area 3, $197,981.55 at Area 6, and

$117,871.33 at Area 5. Those contracts are not isolated mudwell costs, but they document the recurring corrosion-maintenance burden in the marine environment.

Each replacement mudwell receives disc-filter backwash and reject/bypass water. Two pumps return the collected liquid to the plant headworks. The selected 316 stainless-steel construction can be field-assembled in the constrained site, avoids the joint-sealing and foundation demands of concrete, avoids the dimensional/assembly limitations of fiberglass, eliminates routine corrosion coating, and is expected to provide a structural life of approximately 50 years or longer. The pumps remain normal mechanical equipment with an assumed service interval/replacement basis of approximately seven years.

3.6 Area 6 Process Integration Basis

The Area 6 facility must simultaneously perform three connected functions:

- treat the Area 6 service-area wastewater;
- receive, store, monitor, and pump regional AWT effluent to the deep well;
- and manage the residuals and liquid return streams generated by centralized thickening and dewatering.

The return streams are not external to the plant: decant, permeate, centrate, filtrate, washwater, and drainage return to the Area 6 headworks/equalization and impose hydraulic and process loading on the treatment system. At the recent 354.8-dry-ton annual basis, the conservative 1.0% feed-solids case produces approximately 0.0221 MGD of average liquid return, equal to about 18.8% of the recent Area 6 AADF of 0.1179 MGD. The invoice-calibrated 1.93% feed-solids case produces approximately 0.0109 MGD, or 9.3% of recent AADF. The 2026 annualized conservative case produces approximately 0.0243 MGD, and the 2060 conservative case produces approximately 0.0423 MGD. The fourth SBR is therefore included to preserve cycle flexibility and treatment reliability for the hydraulic return and associated process loading. Representative BOD, ammonia/TKN, phosphorus, solids, alkalinity, and oxygen-demand loading will be finalized in the Area 6 process design report.

Table 4. Area 6 Solids Processing Return Flow Planning Cases and Hydraulic Loading

Planning Case	Dry Solids	Feed TS	Average Liquid Return	Return / Current Area 6 AADF	Combined Area 6 Flow
Recent DMR - conservative	354.8 DT/yr	1.00%	0.0221 MGD	18.8%	0.1400 MGD
Recent DMR - invoice calibrated	354.8 DT/yr	1.93%	0.0109 MGD	9.3%	0.1288 MGD
2026 annualized - conservative	390.1 DT/yr	1.00%	0.0243 MGD	20.7%	0.1422 MGD
2060 design - conservative	677.9 DT/yr	1.00%	0.0423 MGD	35.9%	0.1602 MGD

The project relocates the master treatment controls and new regional-system controls into the elevated operations building; replaces/relocates blowers; installs common standby power and MCC systems; and integrates SCADA. This configuration allows the City to operate the regional DIW system and the Area 6 plant from one hardened location with laboratory and operator space.

The residuals-production, feed-solids, and liquid-return-flow calculations supporting these planning cases are provided in Appendix C.

3.7 Structural, Flood, Wind, and Corrosion Criteria

3.7.1 Flood and elevation.

All facilities are located within the Florida Keys coastal floodplain. The selected strategy is to elevate, anchor, and harden critical assets in place rather than relocate the wastewater system outside the floodplain. Tanks, pump structures, electrical equipment, controls, wellheads, and access are designed against the applicable FEMA, Florida Building Code, FDEP, and local criteria shown in the signed and sealed plans.

3.7.2 Structural and wind.

Area 6 is designed as a Risk Category III, Exposure D facility. Major structures use auger-cast-in-place pile foundations sized from geotechnical calculations for gravity, lateral, flood, and uplift loads. The operations/electrical building, generator, blower platform, tanks, and appurtenances are designed for applicable hurricane wind and flood conditions.

3.7.3 Corrosion resistance.

Composite reinforcement is used in piles and 316 stainless steel is specified for exposed hardware and the replacement mudwells where appropriate. Marine-environment coatings, sealed enclosures, conditioned electrical spaces, drainage, and material selection reduce chloride-driven deterioration.

3.7.4 Operational continuity.

The operating treatment plants and legal disposal systems must remain available during construction. Temporary bypasses, sequenced cutovers, standby power, redundant pumps, storage, and City-approved outage plans are required. New facilities must be tested and accepted before the corresponding existing treatment or disposal facilities are removed from service.

4 Recommended Facilities

The recommended facilities implement the unchanged Alternative 1A regional disposal system through the detailed Phase IVA, Phase IVB, and Phase V improvements described below.

- Phases I-III provide the transmission main
- Phase IVA provides remote-plant storage and pumping
- Phase IVB provides Area 6 receiving, deep-well pumping, treatment-support and operations
- Phase V provides the permitted wells

Interfaces include main stubs, valves, air/vacuum release, metering, pressure control, flushing, pressure testing, controls, pump-curve and transient verification, staged startup, receiving-tank turnover and injection testing.

No phase alone achieves compliance; the integrated system must be complete and operating before routine shallow-well use ends.

4.1 Regional System Function

Areas 3, 4, 5, and 7 will discharge treated final effluent into new storage facilities and pump it through the completed transmission mains toward Area 6. Area 6 will receive the remote flow into regional effluent storage, combine it with Area 6 final effluent as designed, monitor and meter the flow, and operate the dedicated deep-well pump station. The Phase V well will inject the AWT effluent into the permitted deep injection zone; the monitoring well will verify confining-zone performance and groundwater protection in accordance with the final UIC permit.

The entire system is controlled and monitored through plant instrumentation and the City SCADA network. Standby power, backup shallow wells, storage, redundant pumps, and sequenced operating modes allow the City to respond to equipment outages, power interruptions, well testing, maintenance, and abnormal flow conditions without interrupting wastewater treatment.

4.2 Phase IVA - Remote Plant Effluent Management Improvements

Phase IVA consists of the plant-specific systems that collect, store, monitor, and pump AWT effluent into the regional transmission main. Common work includes demolition, earthwork, grading, influent/effluent piping, storage tanks, transfer pumps, VFDs and controls, instrumentation, sampling, electrical improvements, SCADA integration, stairs/handrails/platforms, process-water/reuse improvements, testing, startup, and restoration. Continuous operation of each WWTP is a contract requirement.

4.2.1 Area 3 WWTP

The selected layout uses the constrained existing site and avoids acquiring adjacent property. The new tank is required because the existing tank volume is inadequate and the existing structure cannot be practically converted to provide the modeled storage and hydraulic elevation. The replacement CCCs avoid an intermediate transfer-pump system and remove aging steel process structures.

- **Integrated tank:** Approximately 103,000-gallon prestressed-concrete structure arranged as two parallel treatment trains. The final CROM planning basis provides two 6,500-gallon clearwells, two 20,000-gallon CCCs, and two 25,000-gallon effluent-holding compartments.

    - **Total volumes:** Approximately 13,000 gallons of clearwell, 40,000 gallons of chlorine contact, and 50,000 gallons of effluent holding. The combined structure replaces the inactive reuse tank footprint/conflicting wells and provides the hydraulic elevation needed to avoid an additional transfer pump system.
- **Effluent pumping:** Three standardized approximately 90.5-hp pumps, arranged two duty and one standby, with VFD controls, metering, isolation/check valves, instrumentation, alarms, electrical and SCADA integration.
- **Backup disposal:** Two new 18-inch-diameter Class V shallow injection wells for backup use, permitted as modifications to the prior 12-inch concept; constructed and accepted before existing well abandonment.
- **Mudwell:** New approximately 2,800-gallon 316 stainless-steel mudwell matching the existing volume, with two return pumps to the headworks.
- **Demolition/cutover:** Demolish the inactive reuse tank first; construct the two replacement backup wells; abandon the conflicting existing wells; construct and start the new integrated tank and effluent pump station while the existing CCC remains in service; then demolish the existing CCC and install the new mudwell after successful cutover.
- **Ancillary work:** Piping, CL17/TSS/flow monitoring where specified, a replacement process-water system drawing from the new effluent holding tank for plant washdown and equipment service, access, platforms, coatings, site/civil, electrical, controls, testing, and restoration.

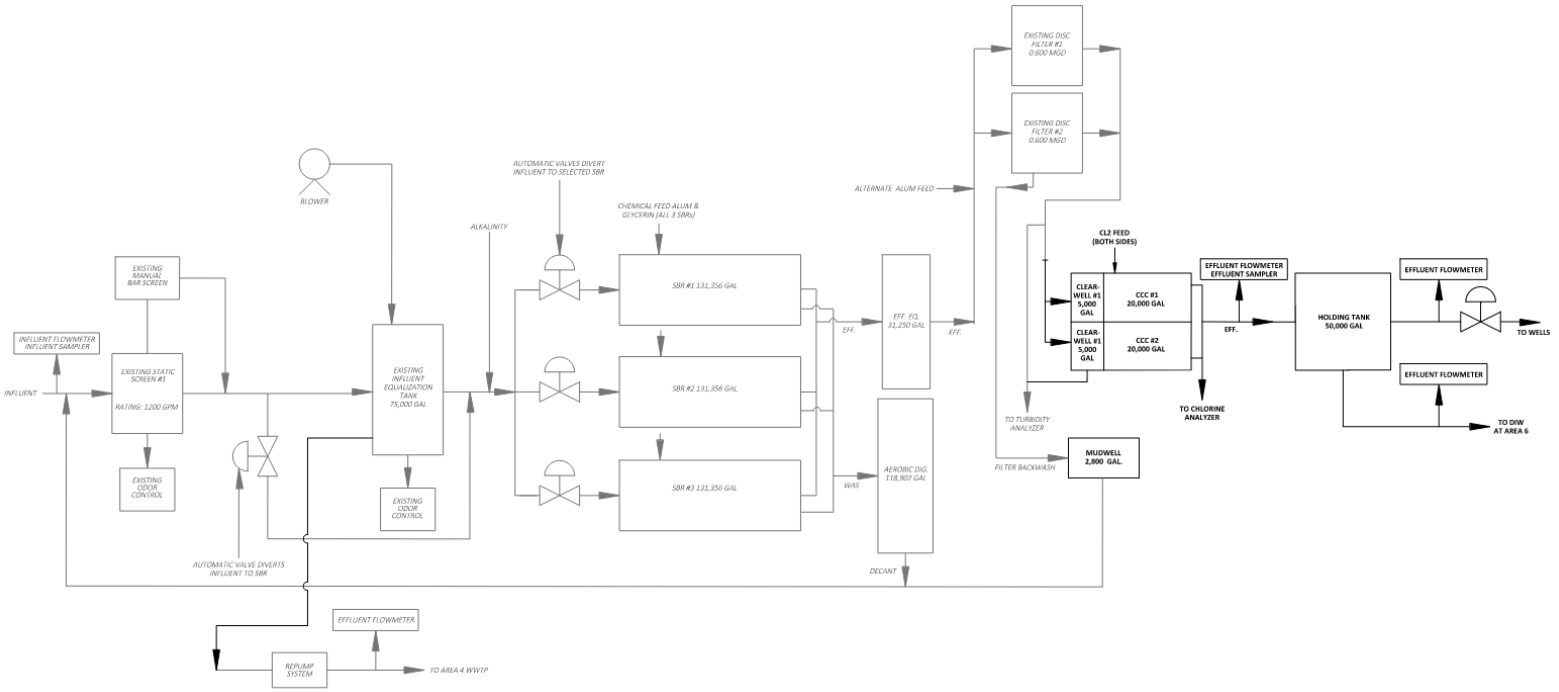


Figure 4. Area 3 WWTP Proposed Process Flow Diagram

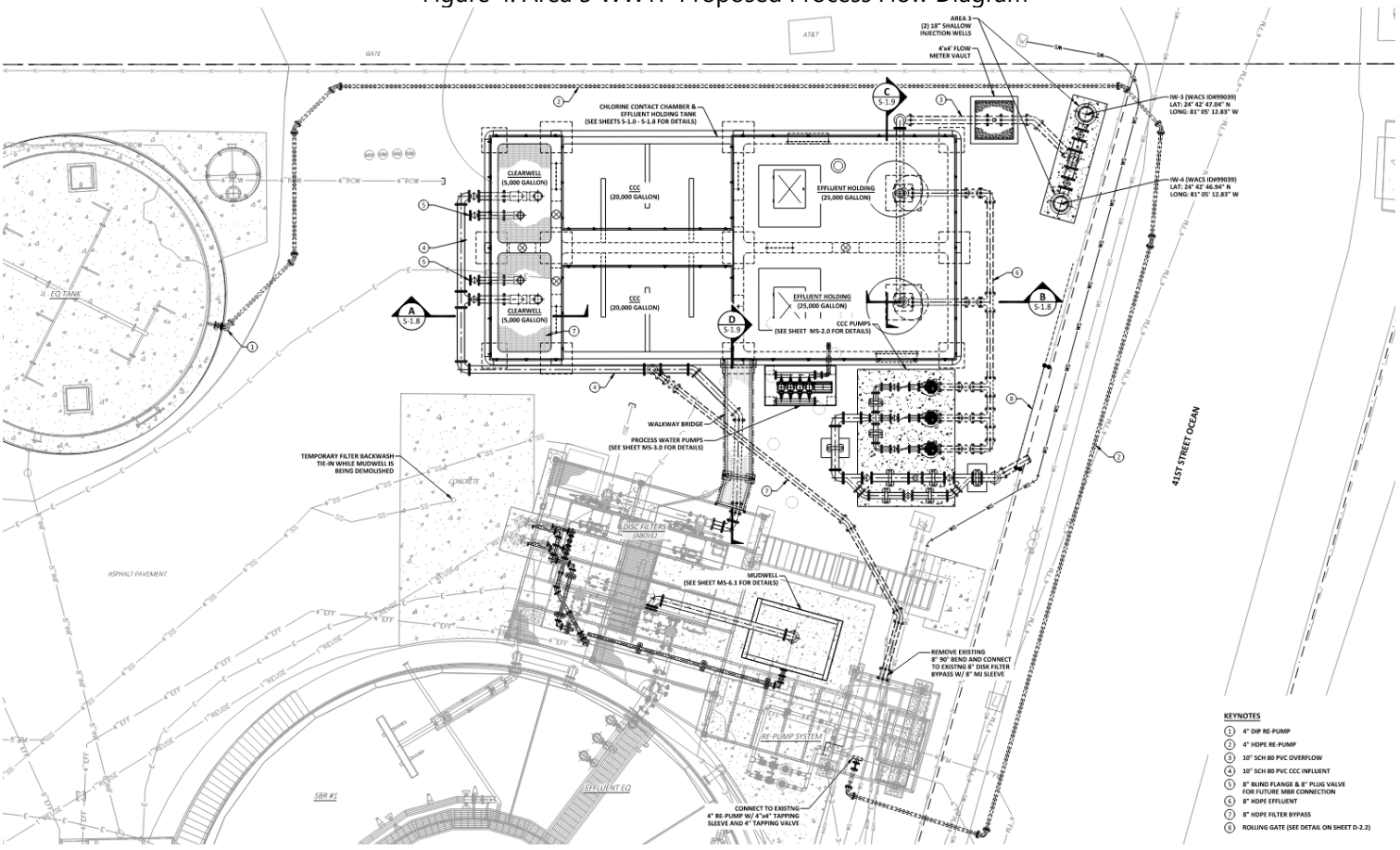


Figure 5. Area 3 WWTP Proposed Site Plan

4.2.1.1 PROPOSED CONSTRUCTION SEQUENCE

The construction sequence for the Area 3 improvements is estimated as follows:

1. Demolish the inactive reuse tank, which is not required for continued treatment operation, to open the construction area.
2. Construct, test, and make available the two new permitted 18-inch backup shallow injection wells while the existing wells and CCC remain in service.
3. After the replacement wells are available, abandon the existing shallow wells that conflict with the new tank footprint and construct the 103,000-gallon integrated clearwell/CCC/holding tank and effluent pump station.
4. Complete piping, electrical, controls, instrumentation, SCADA, process-water, and tie-in preparations; test the new tank and pump system while the existing CCC remains operational.
5. Perform the controlled cutover to the new integrated tank; after successful startup, demolish the existing CCC/filter-connected structure and install the new 2,800-gallon 316SS mudwell on the reusable foundation.
6. Complete final process connections, access, restoration, commissioning, operator training, and record drawings. The final construction plans will include a City-approved phasing plan consistent with this sequence.

Sequence Control

The exact demolition sequence must follow the signed and sealed plans, permits, contractor work plan, and City-approved outage plan. The controlling principle is that new legal disposal and treatment capacity must be available before the existing facilities needed for continuous operation are removed

4.2.2 Area 4 WWTP

The selected Area 4 configuration replaces the earlier permit-stage concept of retaining the existing CCCs and constructing only a separate 60,000-gallon holding tank. Retaining the existing CCCs would require an intermediate transfer-pump system to lift disinfected effluent into the holding tank, retain aging coated-steel process structures, and add power, controls, standby, maintenance, and failure points. The selected integrated tank permits gravity flow from filtration through the new CCCs and into storage.

- **Integrated tank:** Rectangular prestressed-concrete configuration totaling approximately 77,000 gallons: two 8,500-gallon CCC compartments and two 30,000-gallon effluent-holding compartments.
- **Effluent pumping:** Three standardized approximately 90.5-hp pumps, arranged two duty and one standby, with staged/VFD controls consistent with the Area 4 peak-flow modeling.
- **Mudwell:** New approximately 2,800-gallon 316 stainless-steel mudwell matching existing volume, with two return pumps to the headworks.
- **Ancillary work:** Influent/effluent piping, metering, disinfection monitoring, electrical, SCADA, access, process water/reuse, demolition, coatings, site work, testing, startup and restoration.

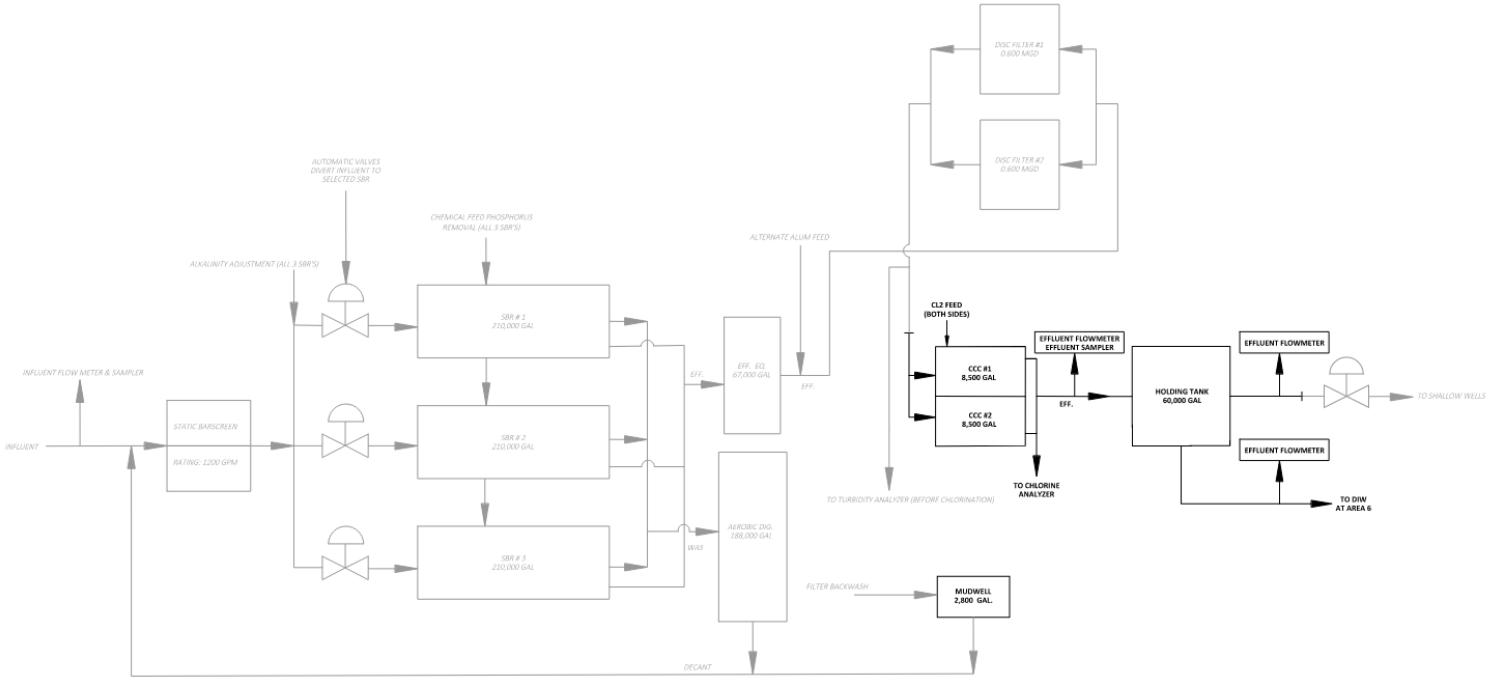


Figure 6. Area 4 WWTP Proposed Process Flow Diagram

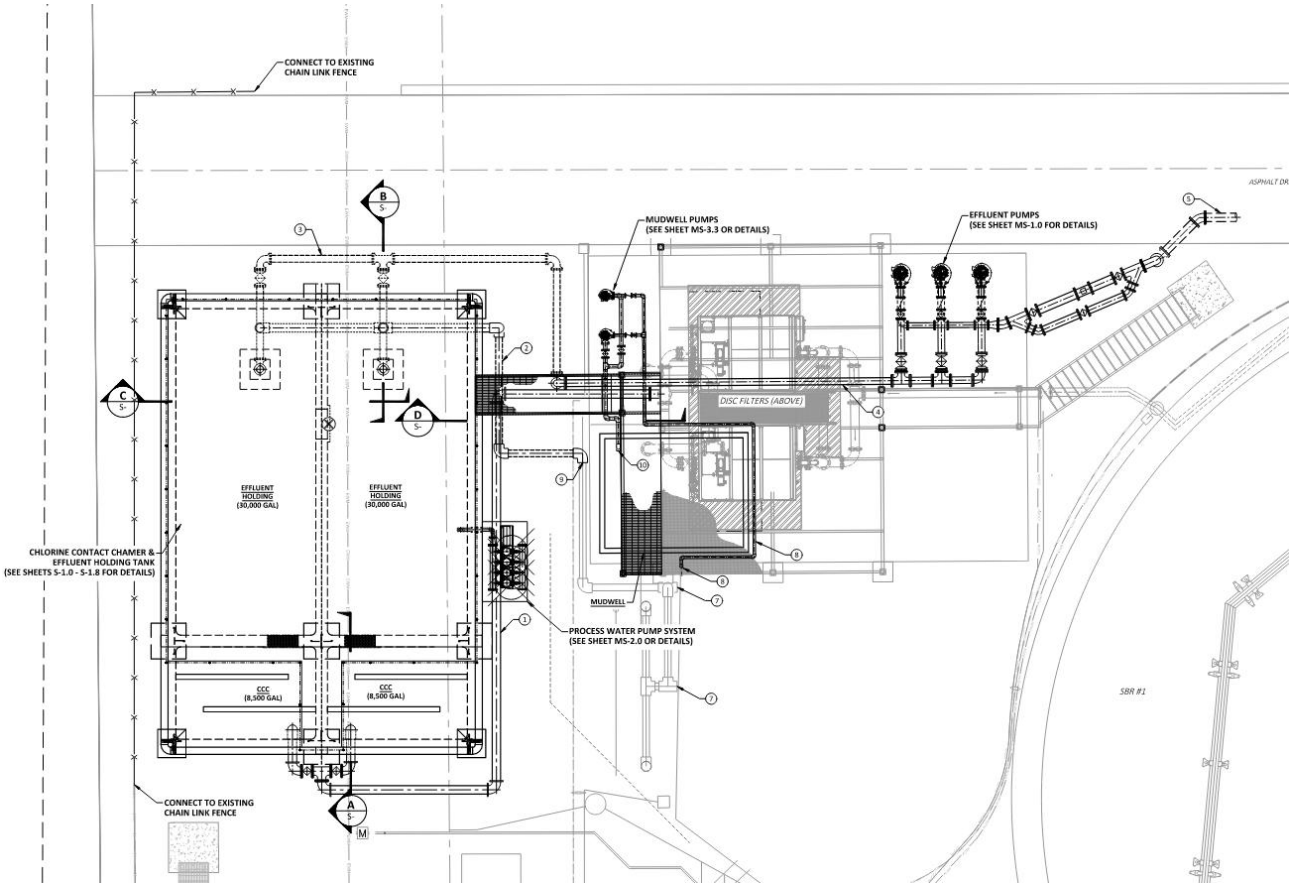


Figure 7. Area 4 WWTP Proposed Site Plan

4.2.3 Area 5 WWTP

Area 5 does not require new CCCs because the existing disinfection configuration can discharge hydraulically to the new holding tank without an intermediate transfer system. The final planning basis is a 60,000-gallon prestressed-concrete tank and two effluent pumps, one duty and one standby. Earlier references to a fiberglass tank or three pumps are design/permit coordination items and do not change the selected function or alternative.

- **Effluent holding:** New 60,000-gallon above-ground prestressed-concrete effluent holding tank. Existing chlorine-contact facilities remain in service.
- **Effluent pumping:** Two standardized approximately 90.5-hp pumps, arranged one duty and one standby, with VFD controls, metering, valves, electrical and SCADA.
- **Mudwell / backup wells:** No new mudwell is included. Existing backup shallow wells remain subject to the final permit and regional backup-use limitations.
- **Ancillary work:** Piping, flow monitoring, a replacement process-water system drawing from the new effluent holding tank, site work, electrical, controls, testing, startup, and restoration.

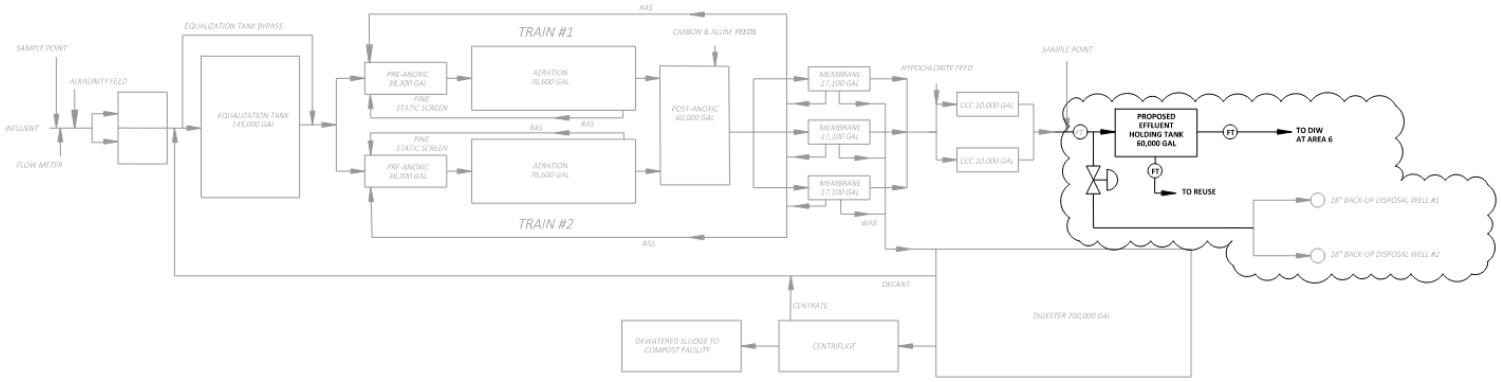


Figure 8. Area 5 WWTP Proposed Process Flow Diagram

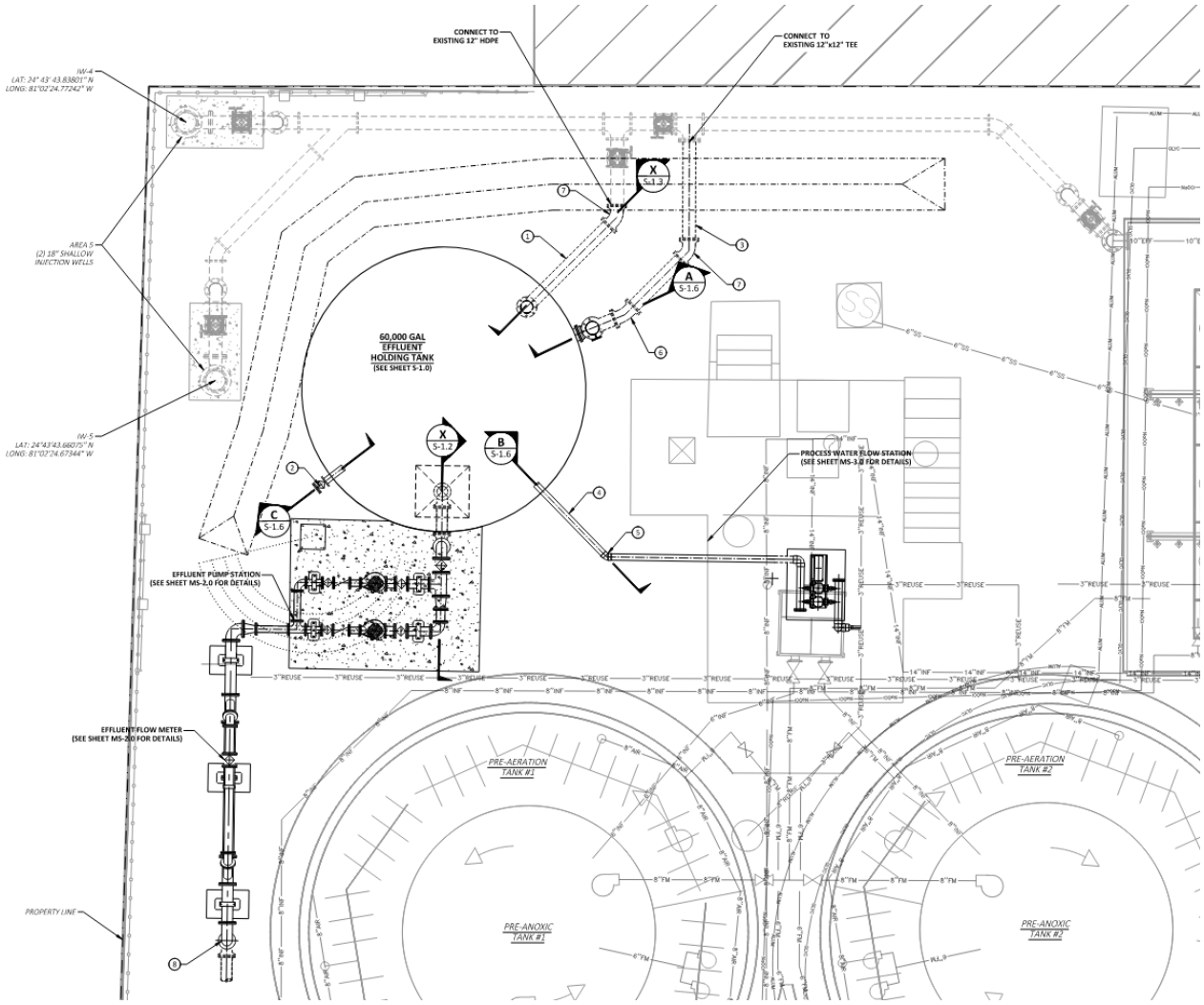


Figure 9. Area 5 WWTP Proposed Site Plan

4.2.4 Area 7 WWTP

Area 7 requires an integrated disinfection/storage configuration because the existing CCC and coated carbon-steel mudwell assembly does not provide the hydraulic elevation, condition, or site arrangement needed for the regional effluent pump station. The selected arrangement preserves two treatment trains and fits the constrained plant site.

- **Integrated tank:** Approximately 36,000 gallons total, consisting of two 4,000-gallon CCC compartments and 28,000 gallons of total effluent-holding volume.
- **Effluent pumping:** Two standardized approximately 90.5-hp pumps, arranged one duty and one standby, with VFD controls, metering, valves, electrical and SCADA.
- **Mudwell:** New approximately 5,300-gallon 316 stainless-steel mudwell matching existing volume, with two return pumps to the headworks.
- **Ancillary work:** Piping, CL17/TSS/flow monitoring where specified, a replacement process-water system drawing from the new effluent holding tank, access, coatings, demolition, site/civil, testing, startup, and restoration.

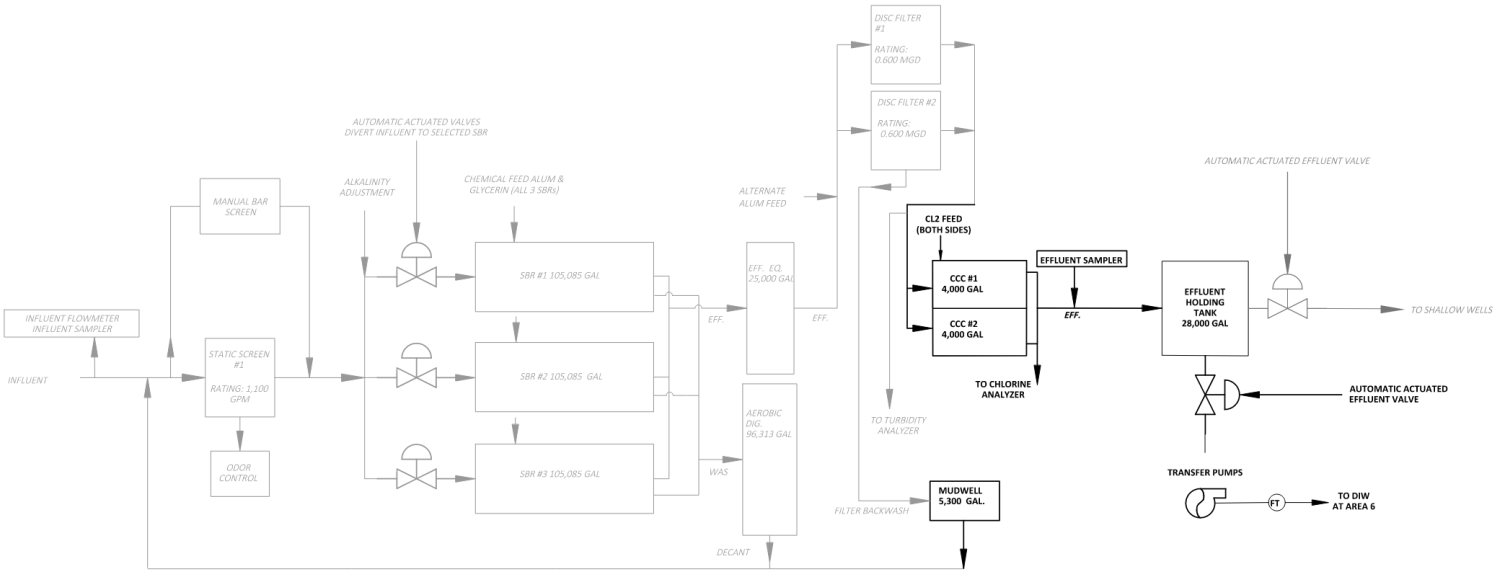


Figure 10. Area 7 WWTP Proposed Process Flow Diagram

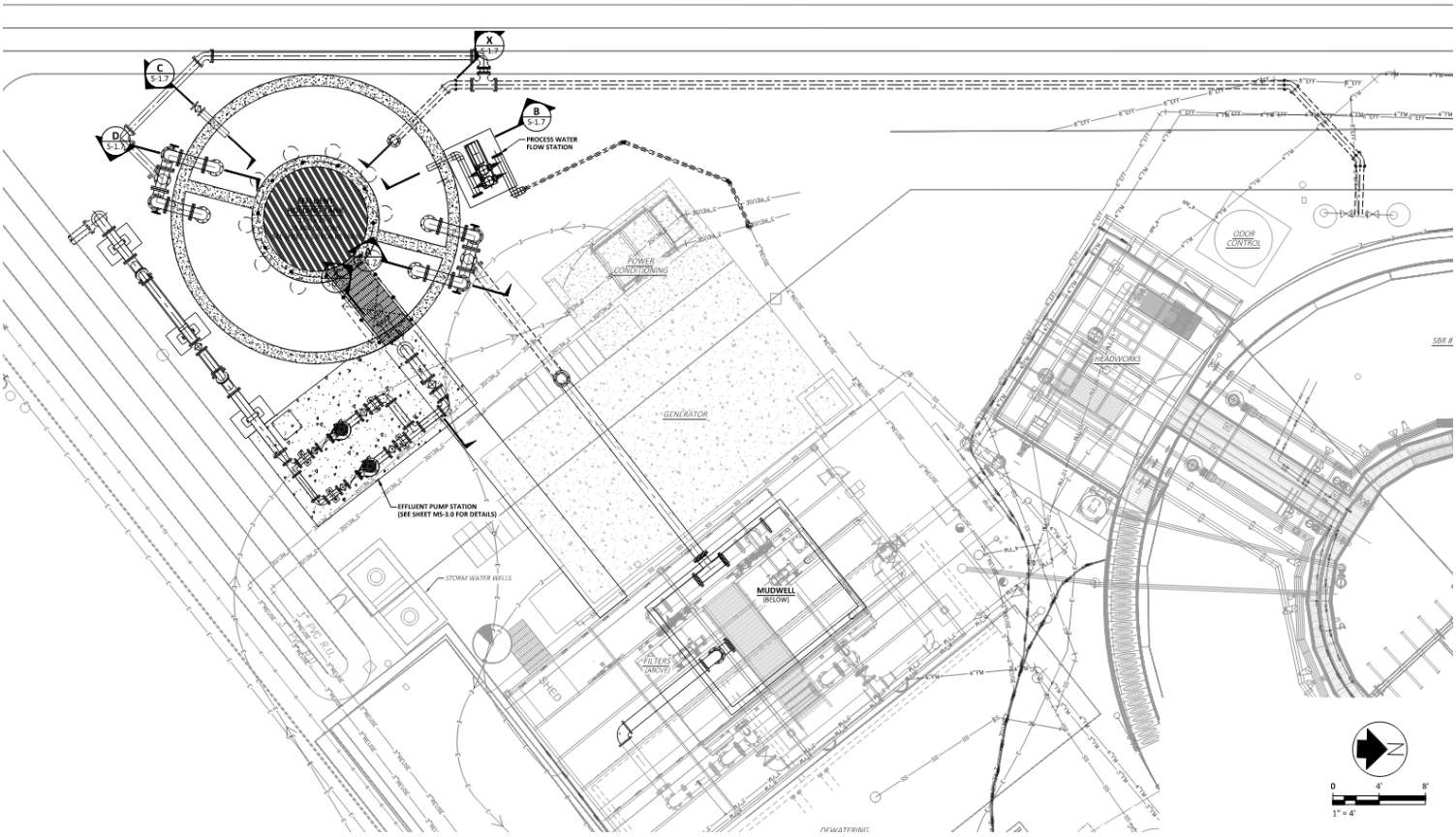


Figure 11. Area 7 WWTP Proposed Site Plan

4.2.5 Phase IVA Instrumentation & Operation Controls

The Phase IVA controls are conceptual at the facilities-planning level and are based on the hydraulic model and the current control narratives. Each plant will include local PLC/VFD control and SCADA points for tank level, pump status, VFD speed, flow, discharge pressure, high/low level, valve status where actuated, power condition, communications, and alarms. The final sequence will stage pumps by tank level and force-main pressure, prevent overpressure, preserve local storage during Area 6 or DIW outages, and transition to backup shallow-well disposal only under approved conditions. Chlorine residual, TSS, and flow monitoring will be provided where shown in the final plans and permits.

Table 5. Effluent Transfer Pump Inventory

Facility	Pump Quantity	Duty / Standby	Planning Pump Basis	Control / Hydraulic Basis
Area 3	3	2 duty / 1 standby	Approx. 90.5-hp standardized submersible pump	Staged VFD operation; two-pump peak capacity
Area 4	3	2 duty / 1 standby	Approx. 90.5-hp standardized submersible pump	Staged VFD operation; model demonstrated one pump cannot meet peak
Area 5	2	1 duty / 1 standby	Approx. 90.5-hp standardized submersible pump	Level/pressure control; full standby redundancy
Area 7	2	1 duty / 1 standby	Approx. 90.5-hp standardized submersible pump	Level/pressure control; full standby redundancy

4.3 Phase IVB - Area 6 Integrated Facility Improvements

Phase IVB creates the complete Area 6 regional receiving and operating facility. The project is described as one integrated facility because the DIW receiving/pumping, Area 6 treatment support, residuals return-flow treatment, electrical/control, building, blower, tank, site, and standby-power systems are physically and operationally interdependent. The residuals functions remain separately identifiable for cost tracking and eligibility review, but they are constructed concurrently to avoid duplicate work and to provide a complete long-term City wastewater operation.



Figure 12. Approximate Boundary of the City's Area 6 Land

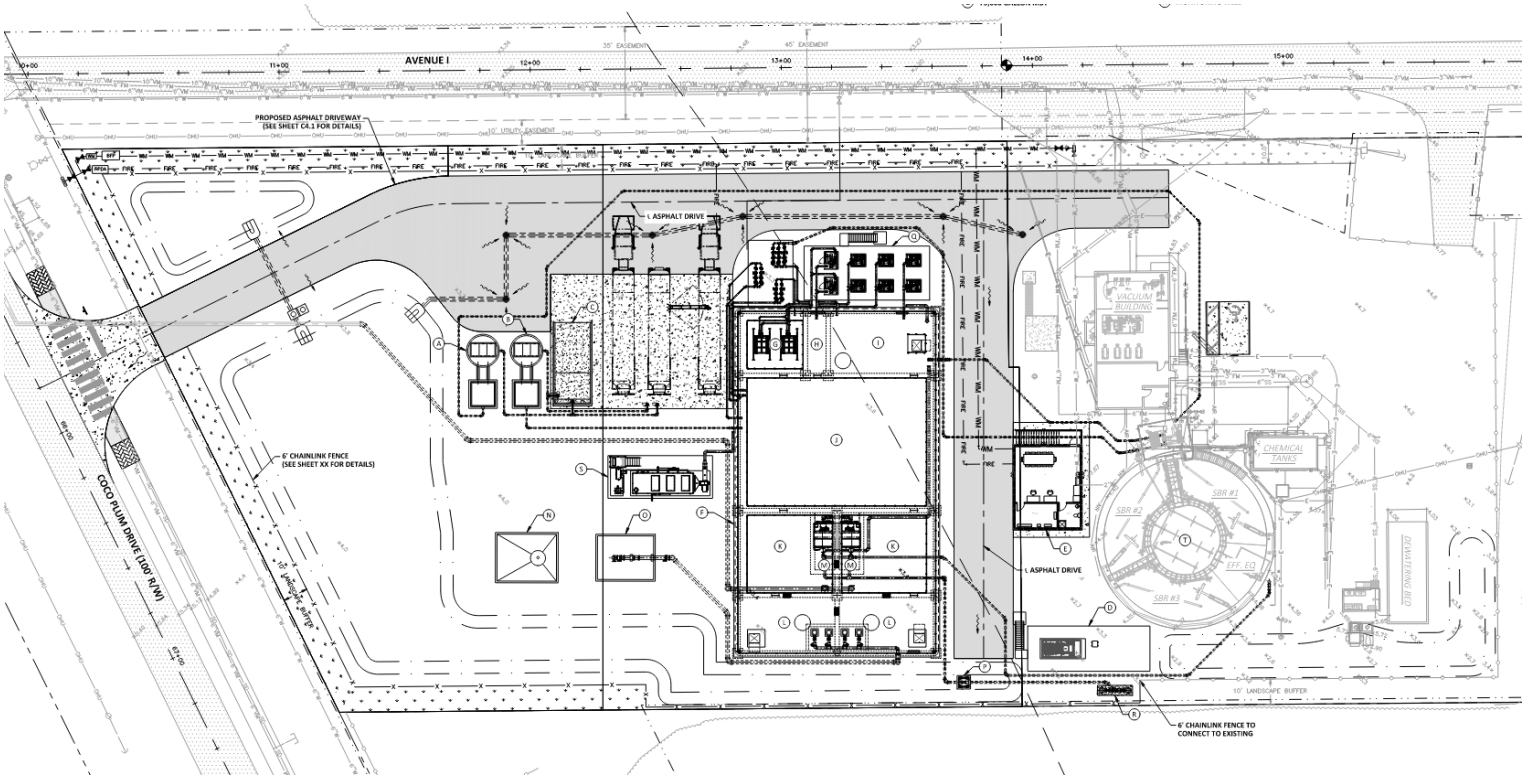


Figure 13. Area 6 Facility Proposed Site Plan

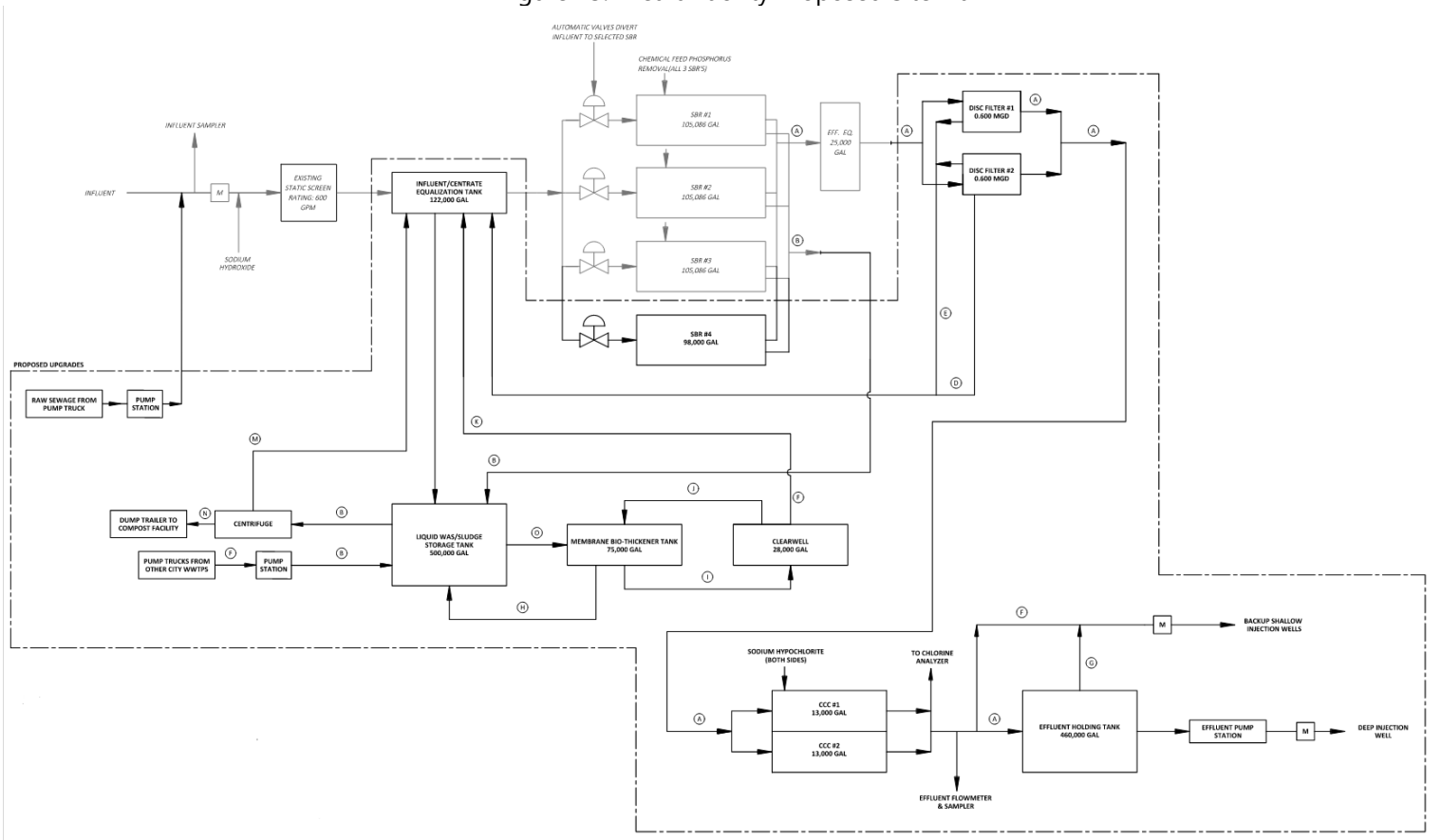


Figure 14. Area 6 Facility Proposed Process Flow Diagram

4.3.1 Regional Effluent Receiving and Deep-Well Pumping

- Regional effluent receiving piping and flow control from the transmission main.
- Approximately 458,000 gallons of regional effluent holding/storage in the final planning configuration, integrated with level, flow, water-quality, and pump controls.
- Four initially installed deep-well pumps, each with an approximate 4.46-MGD design capacity, arranged three duty and one standby. Final horsepower, total dynamic head, and operating points will be established by the pump schedule and well testing.
- Metering, pressure monitoring, valves, wellhead connection, sampling, piping, hatches, stairs, platforms, handrails, coatings, and access.
- Two new 18-inch backup shallow injection wells and abandonment of the existing Area 6 shallow wells as required by the final wastewater/UIC permits.
- Controls that coordinate Area 6 tank levels, DIW availability, wellhead pressure, remote-plant pumping, backup disposal, and emergency storage.

The 458,000-gallon regional effluent-storage compartment provides the central hydraulic buffer between the distributed plants and the deep-well pump station. It allows the remote plants to operate within their local storage and pumping ranges while the Area 6 pumps operate based on regional tank level, well availability, pressure, and permitted injection conditions.

4.3.2 Area 6 Treatment-Support Improvements

- Headworks piping and screening modifications and an approximately 120,000-gallon pre-equalization tank for Area 6 influent and residuals-process return flows.
- Conversion of the existing aerobic digester to a fourth SBR, including process piping, aeration, decant, controls, instrumentation, SCADA, and integration with the existing three SBRs.
- Replacement of the existing sand filters with new disc filtration sized for current and future Area 6 flow and residuals return streams.
- A 28,000-gallon clearwell and two approximately 13,000-gallon CCC compartments for disinfection and final-effluent routing.
- Odor control, chemical systems, return-flow routing, sampling, metering, and process controls.
- Replacement/relocation of blowers and common air piping serving the existing and converted biological treatment processes.

The fourth SBR is part of the selected Phase IVB base scope. Area 6 is currently permitted at 0.200 MGD AADF and will be proposed for 0.250 MGD after the existing aerobic digester is converted to the fourth SBR. The capacity and process modification remain subject to the process design report and FDEP permit modification. The planning driver is the hydraulic and nutrient/solids load from processing residuals generated at all five City plants, not unrelated service-area growth.

4.3.3 Centralized Residuals Receiving, Thickening, Storage, and Dewatering

- Truck receiving/unloading facilities and transfer stations for residuals hauled from City WWTPs.
- Approximately 500,000 gallons of liquid residuals storage/digestion with jet aeration/mixing and associated motive pumps, air piping, instrumentation and controls.
- Approximately 75,000-gallon membrane bio-thickener (MBT) system, permeate pumping, chemical cleaning/metering, air ejectors, and feed-forward pumping.
- City-owned mechanical dewatering system as base-scope equipment, such as a centrifuge, screw press, belt press, or equivalent performance-based unit, including feed pumping, polymer/conditioning systems, controls, power, access, washwater, ventilation, cake handling, and safety provisions.

- Covered or otherwise protected cake-handling/dewatering area and cake trailer/container interface, as established by the final design.
- Routing of centrate, permeate, filtrate, decant, washwater and drainage to the Area 6 equalization/headworks and treatment process.
- Transportation and final disposition of dewatered cake through a separately procured haul-only contract and a City-direct or auditable pass-through receiving-facility/tipping arrangement. Synagro may compete for this service, but the selected planning approach separates dewatering ownership from transportation and tipping.

A City-owned dewatering system reduces dependence on the future availability and bundled pricing of a contractor mobile unit, provides predictable access for City operations, and allows dewatering, equipment operation, hauling, and final disposition to be procured in transparent combinations. The 30-year analysis therefore evaluates City operation, contract operation, bundled cake hauling, haul-only/direct tipping, City self-hauling, continued Synagro service, liquid hauling, deferred construction, and mobile/distributed City equipment.

4.3.4 Common Electrical, Control, Operations, and Resilience Infrastructure

- Elevated Area 6 control and operations building on pile foundations, with operator office, laboratory, restroom, electrical room, process control space and support functions.
- Relocation of the existing Area 6 WWTP master control panel and installation of new regional DIW, fourth-SBR, filtration, residuals, mechanical-dewatering, blower, chemical, and site controls.
- New electrical service/distribution, MCCs, adjustable-frequency drives, panels, instrumentation, grounding, lightning protection, communications and SCADA.
- Standby generator and automatic transfer/power systems located on flood-resistant elevated structural platforms.
- New common blowers and blower platform serving Area 6 treatment and residuals processes.
- Marine-environment corrosion protection, flood/uplift design, hurricane hardening, site lighting, access, fencing, pavement, drainage and security.

The existing operations building is not configured to house the regional DIW controls, expanded electrical equipment, residuals controls, laboratory functions, and operator workspace. Placing the critical electrical and control systems in an elevated, hardened structure is an integral resilience measure for the complete wastewater treatment and regional disposal facility.

4.3.5 Area 6 Facility Space and Construction Interfaces

The Area 6 parcel is constrained by the active WWTP, Coco Plum Drive, Avenue I, property boundaries, access, drainage, well spacing, and the need to maintain operations. The large tanks, wellheads, monitoring well, pump systems, electrical building, generator, blowers, truck receiving, dewatering, and access must therefore be laid out and constructed as one coordinated facility. Separating the residuals work into a later project would require remobilization into an operating DIW site, additional outages, potential demolition or relocation of new work, duplicate electrical/controls, and a more difficult contractor interface.

Construction sequencing must maintain the existing Area 6 treatment process and shallow-well disposal until new treatment, backup, and regional facilities have been tested and accepted. The final contractor sequence should establish temporary power, bypass, blower, filtration, disinfection, and disposal measures and protect the adjacent threatened/endangered species habitat identified in the specifications.

4.4 Phase V – Deep Injection Well and Monitoring Well

Phase V provides the final disposal and monitoring infrastructure. The current UIC application seeks authorization to construct and test a Class V exploratory deep injection well and associated monitoring well. The well casing, cementing, testing, and mechanical-integrity program are developed for the intended permanent deep-disposal service. After drilling, coring, logging, water-quality sampling, packer testing, development, and injection testing establish the actual geology and confining conditions, FDEP will determine the final injection interval, monitoring interval, and permanent operating authorization. The City intends the completed well to fulfill the Area 6 deep-well obligation, subject to the Consent Decree, FDEP approval, and any required legal concurrence.

- **Injection well IW-4:** Nominal 66-inch pit casing; 56-inch conductor casing; 46-inch surface casing; 36-inch intermediate casing; nominal 22-inch injection casing to approximately 2,750 feet; nominal 20-inch open borehole to approximately 3,600 feet below land surface.
- **Injection zone:** Highly transmissive lower Floridan/Boulder Zone interval, subject to drilling, coring, logging, packer, water-quality, development and injection-test confirmation.
- Monitoring well MW-1: Current single-zone planning configuration with FRP monitor casing. The final monitoring interval cannot be established solely from desktop geology; it will be selected from the permeability and water-quality information obtained during injection-well pilot-hole drilling and will be controlled by the final UIC permit.
- **Testing:** Geophysical logs, cores, packer testing, water-quality sampling, pressure tests, video/acoustic surveys, tracer survey, step-drawdown, injection test and mechanical-integrity demonstrations.
- **Wellheads / appurtenances:** Wellhead piping, valves, pressure and flow instrumentation, sampling, structural foundations, electrical/control interface, pad monitoring wells, site restoration and record documentation.
- **Delivery:** Turnkey drilling, casing, cementing, testing, development, startup, permit coordination, CEI/project management and contingency.

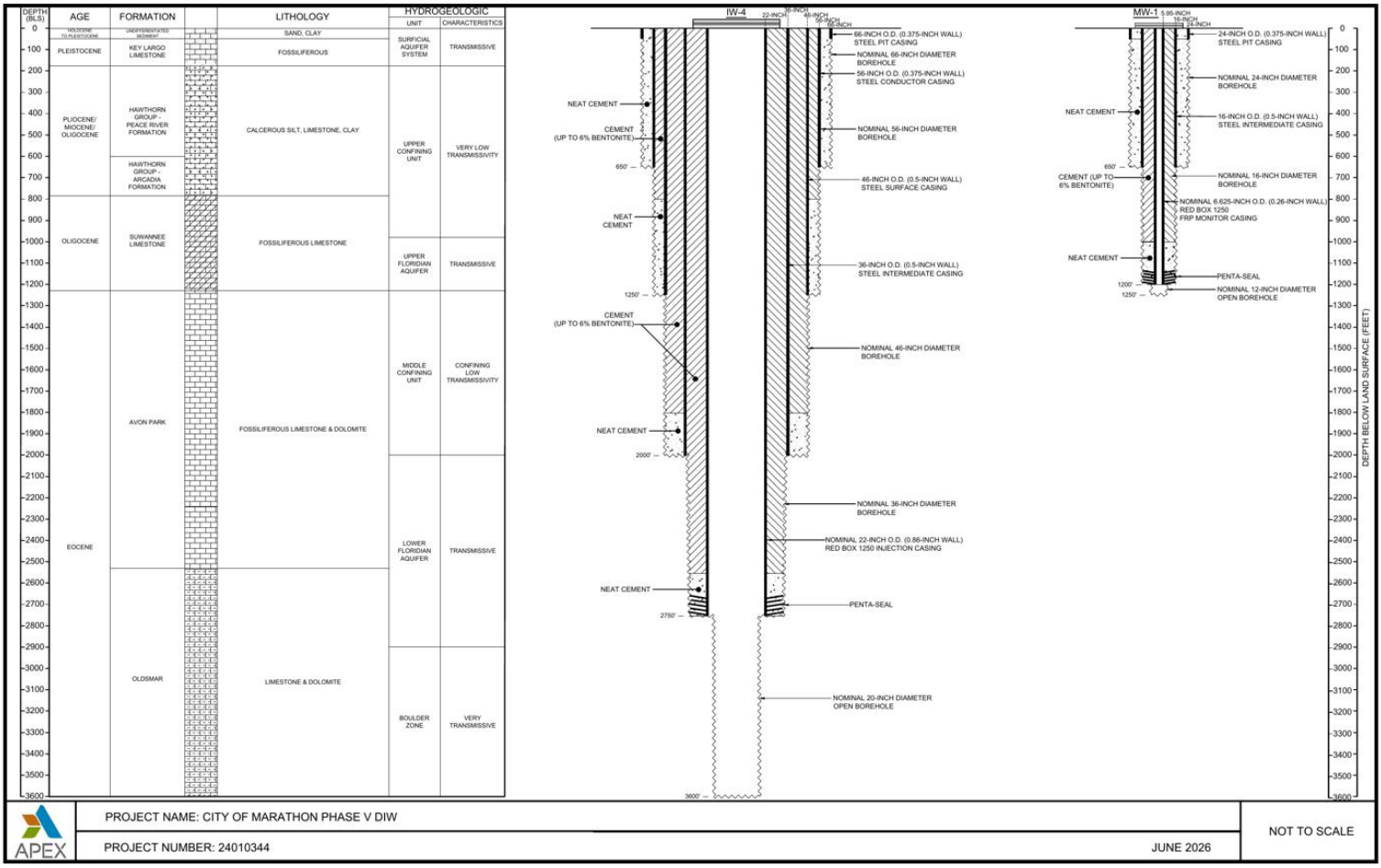


Figure 15. Current Phase V injection-well and monitoring-well construction drawings

The 2023 Juturna planning document assumed a dual-zone monitoring well. Pre-application coordination and the expected geology support a single-zone planning basis, but the City will not know the final monitoring completion until the injection well is drilled and the confining and permeable intervals are characterized. The amendment therefore identifies the single-zone well as the current planning basis and preserves permit-driven flexibility rather than treating the configuration as finally approved.

5 Alternatives & Cost Effectiveness

The 2023 plan evaluated twelve regional disposal alternatives. This amendment does not repeat that regional decision; it evaluates the practical design-development alternatives for the facilities that FDEP identified as requiring additional planning documentation.

5.1 Evaluation Method

Alternatives were evaluated for their ability to implement Alternative 1A and for capital cost, operation and maintenance, repair and replacement, useful life, reliability, redundancy, constructability, site constraints, energy and water efficiency, environmental effects, flood resilience, schedule, continuous plant operation, permitting, staffing, and risk to the December 31, 2028 Consent Decree deadline. The recommended alternative must be technically feasible and cost-effective over its service life, not simply the alternative with the lowest initial cost.

The component comparisons use a 30-year period beginning in 2030 and constant 2026 dollars. A 0% real discount rate is the primary comparison basis, consistent with the 2023 planning method; a 3% real-discount present-worth comparison and a 0% to 5% sensitivity test whether discounting changes the decision. Selected-alternative capital costs are tied to the current Phase IVA and Phase IVB estimates. Non-selected capital, O&M, and repair/replacement amounts are planning-level screening allowances because those concepts were not advanced through final design. The analyses include initial capital, annual incremental O&M, and scheduled rehabilitation or replacement events based on the stated planning useful lives.

Costs that are the same under every alternative are excluded from a component ranking so they do not mask the material decision. The component analyses also overlap and must not be added together as a project total. For example, the Phase IVA CCC/storage comparison uses the full selected Phase IVA capital estimate, which already includes selected backup-well and mudwell work. The Phase IVA and Phase IVB engineer's estimates remain the controlling project-cost totals. Appendix D contains the complete formula-driven comparison, input and source register, annual cash flows, useful-life assumptions, and sensitivity analyses.

5.2 Regional Baseline Alternatives

The regional baseline confirms that the City is not reopening the twelve-alternative decision. No action is legally infeasible; repeating the regional study would disregard the Council record, Consent Decree, permits, and force-main construction already underway; and completing Alternative 1A with the refined Phases IVA, IVB, and V facilities is the only practicable implementation path.

Table 6. Regional Baseline Alternatives Comparison

Alternative	Description	Disposition
R-1 No action / continued primary shallow-well disposal	Continue existing disposal without completing the regional DIW system.	Not feasible. Conflicts with the Consent Decree, permit implementation schedules, and the City's adopted Alternative 1A.
R-2 Reopen the 2023 regional alternatives	Reevaluate Area 6, Crawl Key, multiple wells, reuse, and potable-reuse alternatives.	Not necessary. The 2023 plan already evaluated twelve alternatives; the City selected Area 6; the Consent Decree requires Alternative 1A; major conveyance phases are under construction.

R-3 Complete Alternative 1A with refined facilities	Construct Phases IVA, IVB, and V as the detailed implementation of the selected Area 6 regional system.	Recommended. Preserves prior planning decision, City control, funded/contracted conveyance, court schedule, and current permits/design.

5.3 Phase IVA Hydraulic and CCC Configuration Alternatives

Table 7. Phase IVA Hydraulic Configuration Alternatives

Alternative	Description	Advantages	Disadvantages
IVA-1 Retain existing CCCs; add transfer pumping	Keep existing CCCs at Areas 3, 4, and 7, add separate holding tanks and intermediate transfer pump systems.	Lower initial tank volume; less immediate CCC demolition.	Additional pumps, VFDs, standby power, controls, wet wells/piping, energy, cycling, maintenance and failure modes; retains aging/corroding structures; constrained sites.
IVA-2 Separate new CCC and holding structures	Construct new CCCs and separate holding tanks with gravity or pumped interconnection.	New structures; physical process separation.	More foundations, piping, access, site area, mobilization and capital; difficult at constrained plants; more joints and construction interfaces.
IVA-3 Integrated/site-specific tanks	Integrate clearwell/CCC/holding at Areas 3, 4, and 7 and use a holding-only tank at Area 5.	Avoids intermediate pumping; fewer structures and interfaces; lower energy/maintenance; site efficient; operationally redundant trains at key plants.	Requires coordinated cutover and demolition; higher initial scope than retaining existing CCCs.

Table 8. Preliminary Phase IVA Life-Cycle Comparison

Alternative	Initial Capital	30-Year LCC (0%)	Present Worth (3%)	Disposition
IVA-1 Retain CCCs + transfer pumping	$10,966,050	$17,416,050	$15,006,283	Not selected
IVA-2 Separate new CCC + holding	$14,176,050	$17,026,050	$15,971,397	Not selected
IVA-3 Integrated / site-specific	$12,411,090	$14,511,090	$13,718,149	Selected

The integrated/site-specific configuration has the lowest 30-year life-cycle cost on both the primary constant-dollar basis and the 3% present-worth basis. At 0%, it is $2,514,960 lower than IVA-2, the closest non-selected alternative. It avoids intermediate transfer pumping, replaces aging steel CCC assets, preserves gravity hydraulics, reduces structural and piping interfaces, and fits the constrained remote-plant sites. IVA-3 is therefore the recommended Phase IVA hydraulic and CCC configuration.

5.4 Area 3 Backup-Well and Construction-Sequence Alternatives

Table 9. Area 3 Backup-Well and Sequencing Alternatives

Alternative	Description	Cost / Life-Cycle Screen	Evaluation
A3S-1 Relocate tank / acquire land	Acquire or lease another parcel/easement, extend piping and electrical, construct separate access/foundations, and retain the existing wells.	No identified available parcel; land, off-site piping, foundations, permitting, and schedule costs would be additional to the tank/pump work.	Screened out. Site availability and acquisition schedule are incompatible with the 2028 deadline and City-control objective.
A3S-2 Repump to Area 4 during construction	Use the existing 4-inch Area 3-to-Area 4 raw-sewage repump force main with temporary/upsized pumping and storage while existing wells are removed.	Would require pump and likely force-main/storage upgrades, temporary controls, energy and maintenance; Area 4 lacks dependable treatment/disposal capacity for the additional construction-period flow.	Screened out. Does not provide a reliable permitted disposal path and creates two-plant operational and compliance risk.
A3S-3 Replacement wells and sequenced cutover	Demolish inactive reuse tank; construct/test two 18-in wells; abandon conflicting wells; build/start new tank; then remove existing CCC and install 316SS mudwell.	$645,000 issued direct-construction allowance for two wells, plus normal associated CEI/contingency already carried in Phase IVA; avoids land and temporary-system life-cycle burden.	Selected. Only alternative that maintains lawful disposal, continuous treatment, City ownership, constructability, and schedule.

The preceding screening evaluates the construction-sequencing concepts. The life-cycle analysis below uses the alternative identifiers established in Appendix D to separately evaluate relocation, temporary disposal, and the 12-inch and 18-inch replacement-well configurations.

Table 10. Area 3 Backup-Well and Sequencing Life Cycle Cost Analysis Summary

Alternative	Initial Capital	30-Year LCC (0%)	Present Worth (3%)	Evaluation
A3-1 Acquire land / relocate	$1,600,000	$2,500,000	$2,166,293	No suitable adjacent site; schedule and acquisition risk
A3-2 Temporary disposal	$4,378,000	$4,378,000	$4,378,000	No dependable supplemental permitted disposal path

A3-3 Two new 12-inch wells	$707,243	$1,257,243	$1,052,288	Lower first cost; greater specialty-cleaning burden
A3-4 Two new 18-inch wells	$832,050	$1,132,050	$1,027,742	Selected; supports City bucket-auger maintenance

The selected sequence constructs and tests two new 18-inch backup wells before the conflicting existing facilities are removed, preserving treatment and lawful disposal through cutover. The selected wells are $125,193 lower than the 12-inch alternative over 30 years at 0% and $24,546 lower at 3%. At a 5% real discount rate, the 12-inch alternative is approximately $15,805 lower in present worth; however, the 18-inch wells remain recommended because they permit use of the City's bucket auger, reduce reliance on specialty cleaning and earlier major rehabilitation, and provide the more reliable maintenance standard. Appendix D documents the temporary-disposal assumptions, event schedules, and sensitivity.

5.5 Mudwell Alternatives

Table 11. Mudwell Life-Cycle Screening Alternatives

Alternative	Description	30-Year Constant-Dollar Structural Cost	3% Present Worth Screen	Evaluation
MWS-1 Retain/recoat carbon steel	Immediate major recoat, repeat at years 10 and 20, and structural replacement near year 25. Retains a corroding assembly that conflicts with CCC/filter removal.	$425,000 (using $75,000 per recoat and $200,000 replacement)	$268,000	Not selected. Highest outage/coating burden and poor site/access compatibility.
MWS-2 New separate tank at alternate site	Construct a separate concrete, FRP, or coated-steel tank at a new location with new foundation, piping, electrical, access, bypass, land/easement needs, and duplicate mobilization.	$300,000-$450,000 planning range	$300,000-$450,000	Not selected. Constrained sites and added land/foundation/piping make this more costly and disruptive.
MWS-3 New 316SS on reusable foundation	Field-assemble a 316SS tank matching existing volume, retain two return pumps,	$120,000-$150,000 planning cost range	$120,000-$150,000	Selected. Lowest structural life-cycle cost, 50+ year expected life, negligible

	reuse the structurally acceptable foundation, and eliminate routine corrosion coating.		corrosion maintenance, and best site fit.

Following the configuration screening above, the structural material alternatives for the three replacement mudwells were evaluated on a life-cycle basis. Table 12 presents the material alternatives and identifiers used in Appendix D.

Table 12. Mudwell Alternative Life Cycle Cost Analysis

Alternative	Initial Structural Capital	30-Year LCC (0%)	Present Worth (3%)	Disposition
MW-1 Retain / recoat existing carbon steel	$290,250	$2,004,750	$1,271,800	Not selected
MW-2 New coated carbon steel	$774,000	$1,624,500	$1,327,082	Not selected
MW-3 New concrete	$967,500	$1,341,000	$1,210,662	Closest non-selected at 0%
MW-4 New 316 stainless steel	$464,400	$554,400	$523,201	Selected

New 316 stainless-steel mudwell structures at Areas 3, 4, and 7 have the lowest life-cycle cost and remain lowest throughout the 0% to 5% discount-rate sensitivity. At 0%, the selected alternative is $786,600 lower than new concrete and $1,450,350 lower than retaining and recoating the existing carbon-steel structures. The comparison assigns the selected structures a 50-year-or-longer planning life and eliminates recurring corrosion-recoating and structural replacement during the 30-year period. Return pumps are common to all structural alternatives and are excluded from the ranking; the appendix separately identifies $480,000 of undiscounted common pump replacements over 30 years. Appendix D provides the site-specific structural-cost basis and the complete renewal schedule.

5.6 Area 6 Backup Shallow Well Alternatives

Table 13. Area 6 Backup Shallow Well Alternatives

Alternative	Description	Cost/Life-Cycle Screen	Evaluation
A6-1 Retain / rehabilitate existing wells	Retain the three existing Area 6 shallow wells and perform near-term rehabilitation while modifying the surrounding facility layout as necessary. Future replacement or relocation would still be required because the wells conflict with the final integrated Area 6 facility footprint.	Lowest initial expenditure, but requires higher maintenance of the aging wells and defers rather than avoids replacement. Estimated 30-year LCC is $1,600,000.	Screened out. The existing well locations are not compatible with the final Area 6 layout and retaining them would require facility redesign and later replacement.

A6-2 Two new 12-inch wells	Abandon the three existing wells and construct two new 12-inch backup shallow wells in a location compatible with the final Area 6 facility.	Abandon the three existing wells and construct two new 12-inch backup shallow wells in a location compatible with the final Area 6 facility.	Not selected. Physically feasible and lower in first cost, but carries a greater long-term specialty-maintenance burden and does not provide the City's preferred standardized maintenance access.
A6-3 Two new 18-inch wells	Abandon the three existing wells and construct two new 18-inch backup shallow wells in a location compatible with the final Area 6 facility.	Higher initial cost than 12-inch wells, but permits use of the City's bucket-auger maintenance equipment, reduces specialty-cleaning costs, and has the lowest 30-year LCC at $1,203,000.	Selected. Compatible with the final site layout, provides standardized City maintenance access, improves long-term reliability, and is the lowest-cost feasible alternative over the 30-year analysis.

Table 14. Area 6 Backup Shallow Wells Life Cycle Cost Analysis

Alternative	Initial Capital	30-Year LCC (0%)	Present Worth (3%)	Evaluation
A6-1 Retain / rehabilitate existing wells	$300,000	$1,600,000	$1,197,924	Conflicts with final Area 6 facility footprint
A6-2 Two new 12-inch wells	$778,193	$1,328,193	$1,123,238	Lower first cost; greater specialty-cleaning burden
A6-3 Two new 18-inch wells	$903,000	$1,203,000	$1,098,692	Selected; compatible location and City maintenance standard

The final Area 6 layout requires abandonment of the three existing shallow wells and construction of replacement backup capacity in a compatible location. Two new 18-inch wells are $397,000 lower than retaining/rehabilitating the existing wells and $125,193 lower than two new 12-inch wells over 30 years at 0%. The 3% present-worth comparison also favors the 18-inch wells by $24,546 over the 12-inch wells. As in the Area 3 analysis, the 12-inch alternative becomes approximately $15,805 lower at 5%, but the 18-inch wells remain recommended because they meet the City's bucket-auger maintenance standard, reduce specialty-cleaning risk, and provide greater operational reliability. The selected initial capital includes the current Area 6 site-specific planning allowance; its basis and sensitivity are documented in Appendix D.

5.7 Area 6 Integrated Facility Alternatives

Table 15. Area 6 Integrated Facility Alternatives

Alternative	Facility Configuration	Key Consequences / Cost-Effectiveness
A6-1 Minimum DIW receiving facility; continue bundled/mobile residuals service	Build regional effluent receiving, 458,000-gal storage, DIW pumps, essential building/electrical/controls, and	Lowest immediate residuals capital but retains approximately $1,888.33/DT bundled service, escalation, mobile-equipment

	continue current contractor dewatering/hauling and distributed residuals handling.	availability, interplant handling, and less transparent haul/tipping costs.
A6-2 Build DIW now; defer permanent residuals facility	Construct the DIW receiving facility and common infrastructure, then add residuals receiving, MBT, 500,000-gal digester, dewatering, return-flow treatment, and interfaces approximately five years later.	Defers capital but duplicates mobilization and integration, exposes the City to escalation, and requires later construction in an operating regional DIW facility. 30-year PV is higher than concurrent construction.
A6-3 Concurrent integrated Area 6 facility - selected	Construct the DIW receiving/storage/pumping, fourth SBR, filtration/disinfection, residuals receiving/thickening/digestion/dewatering, common blowers, electrical/controls/building, and site systems together.	Shares tanks, piles, power, controls, building, access, and construction interfaces; treats return flows; reduces truck traffic; improves reliability; and provides the lowest combined base-case rank.

5.8 Residuals Management and Dewatering Alternatives

Table 16. Residuals Management Alternatives - 30-Year Life-Cycle Cost

Alternative	Initial Capital	First-Year Loads	3% Present Worth	Savings / (Loss) vs Synagro	Combined Rank
Continue Synagro bundled service	$0	93	$24,251,662	Baseline	7
Liquid haul at 2% TS	$2,400,000	805	$53,926,449	($29,674,787)	9
Liquid haul at 3% TS	$2,400,000	537	$37,869,278	($13,617,616)	8
City dewatering + bundled cake haul	$3,550,000	93	$21,695,665	$2,555,997	2
City dewatering + haul-only/direct tip – selected	$3,550,000	93	$19,501,534	$4,750,129	1
City dewatering + City self-haul	$4,050,000	93	$21,395,957	$2,855,705	4
City equipment + contract operation	$3,550,000	93	$19,986,010	$4,265,652	3
Defer permanent facility five years	$4,082,500	93	$21,244,310	$3,007,353	6
Mobile/distributed City dewatering	$2,150,000	93	$21,146,387	$3,105,276	5

The life-cycle comparison continues to identify City-owned fixed dewatering with separately procured haul-only transportation and direct or auditable accepting-facility tipping as the preferred planning alternative. The alternative ranks first on the combined cost and non-cost evaluation and is approximately $4.75 million lower in 30-year present worth than continued bundled Synagro service under the expected escalation case. City equipment with contract operation and City-owned dewatering with bundled cake hauling remain viable

comparison alternatives, but neither provides a better combined ranking. Liquid hauling at either 2 or 3 percent solids is substantially more costly and would require significantly greater truck activity.

The completed screening analysis supports concurrent construction of the integrated Area 6 facility and identifies City-owned fixed dewatering with separately procured haul-only transportation and City-direct or auditable accepting-facility tipping as the preferred residuals-management planning alternative. The current LCCA assigns approximately $2.15 million of common centralized residuals-processing capital and approximately $1.40 million for the City-owned mechanical-dewatering system, for an initial capital basis of approximately $3.55 million for the fixed-dewatering alternatives. Shared tank, building, site, treatment-support, and DIW-related costs that are common to the Area 6 facility are excluded from the residuals technology ranking to avoid double counting.

Under the expected 3-percent Synagro escalation case, the preferred residuals alternative has an estimated 30-year present worth of approximately $19.50 million compared with approximately $24.25 million for continued bundled Synagro service, an estimated present-worth savings of approximately $4.75 million. Final equipment, operating, transportation, and accepting-facility quotations will be used to confirm the economic ranking before procurement.

Table 17. Synagro Escalation Sensitivity

Synagro Escalation Case	Synagro 3% Present Worth	Selected City Alternative Present Worth	Savings / (Loss)	Outcome
2.0% contract floor	$20,171,917	$19,501,534	~$670,000	City-owned/direct-tip lower
3.0% expected base	$24,251,662	$19,501,534	~$4,750,000	City-owned/direct-tip lower
4.03% historical invoice CAGR	$29,464,657	$19,501,534	~$9,963,000	City-owned/direct-tip materially lower
5.2% recent adjustment	$37,028,921	$19,501,534	~$17,527,000	City-owned/direct-tip materially lower

The sensitivity analysis indicates that the preferred City-owned dewatering alternative remains lower in present worth than continued bundled Synagro service across the evaluated Synagro escalation cases, including the 2-percent contract-floor case. The economic advantage increases as contractor-service escalation increases. The result remains dependent on the actual cost of City operation, haul-only transportation, and accepting-facility tipping; accordingly, those inputs should be confirmed through equipment quotations and local procurement before the final operating structure is established.

The preferred planning procurement structure is City-owned fixed dewatering with transportation procured separately as a haul-only service and final disposition arranged directly by the City or through an auditable pass-through. Separating these functions improves price transparency and avoids the capital, staffing, maintenance, and backup requirements associated with a lightly utilized City-owned haul fleet. City self-haul, contract operation of City equipment, bundled cake hauling, deferred construction, and mobile/distributed City dewatering remain feasible comparison cases but do not exceed the preferred combined cost/non-cost score in the base analysis.

Mechanical dewatering also substantially reduces outbound transportation. For the first operating year of the 30-year analysis, liquid hauling is estimated at approximately 805 tanker loads per year at 2-percent solids or

approximately 537 tanker loads per year at 3-percent solids, compared with approximately 93 cake loads per year at approximately 20-percent solids. This represents an approximately 88-percent reduction relative to 2-percent liquid hauling and approximately 83 percent relative to 3-percent liquid hauling, reducing traffic, spill exposure, fuel consumption, and dependence on liquid-sludge receiving capacity.

The residuals-production, dewatering, hydraulic-return, hauling, cost, and sensitivity calculations supporting this comparison are provided in Appendix C and Appendix D.

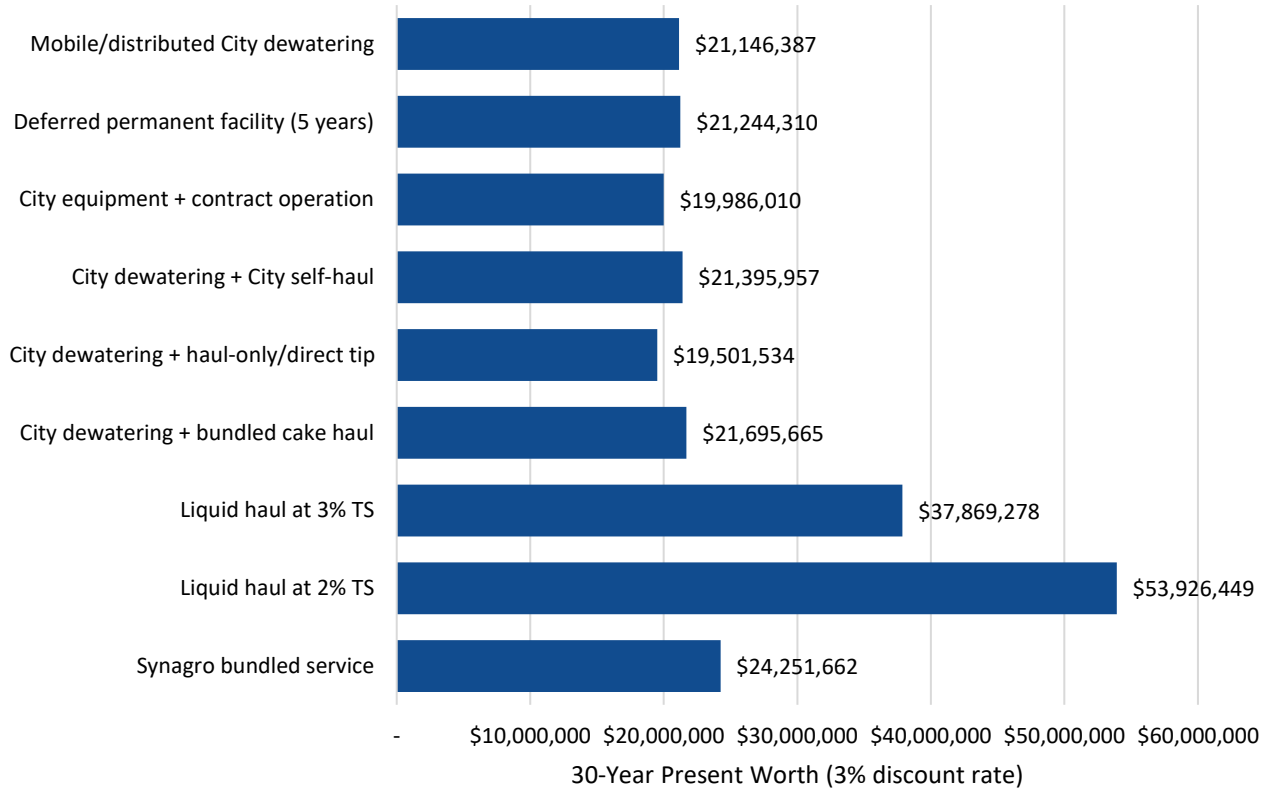


Figure 16.Thirty-year present-worth comparison of residuals management alternatives.

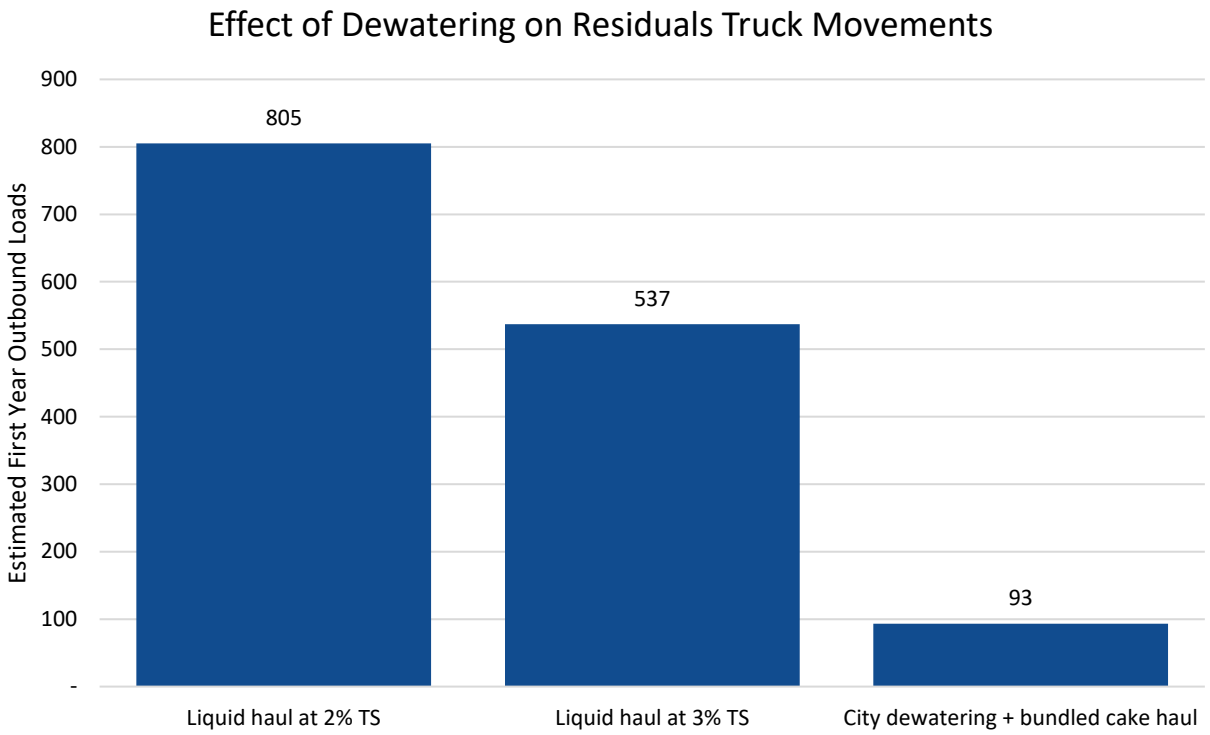


Figure 17.Estimated first-year truck movements for liquid hauling and dewatered cake.

5.9 Phase V Well and Monitoring Configuration

The regional alternatives analysis already selected one deep injection well at Area 6 rather than multiple wells or Crawl Key. Within Phase V, final casing depths, open-hole interval, monitoring-zone completion, and testing are controlled by hydrogeology and the UIC permit. The current single-zone monitoring concept is less complex than a dual-zone well and was developed through preliminary FDEP coordination based on expected geology. Because final approval has not been issued, the amendment does not declare the single-zone configuration cost-effective independently of the UIC decision; it identifies it as the current permitted-design basis and carries sufficient contingency for required testing and permit-driven adjustments.

5.10 Selected Alternatives Summary

Table 18. Recommended Design-Development Alternatives

Scope	Selected Alternative	Basis for Selection
Regional disposal	Alternative 1A – single Area 6 deep well	City ownership/control, Council record, Consent Decree, force-main construction, permit path, and schedule.
Phase IVA hydraulics	Integrated/site-specific CCC and storage facilities	Lowest 30-year LCC; avoids intermediate pumping; fits constrained sites; preserves gravity hydraulics.

Area 3 backup wells / sequence	Two new 18-inch wells and sequenced cutover	Lowest 0% and 3% well LCC; maintains disposal; supports City bucket-auger maintenance.
Area 6 backup wells	Two new 18-inch wells in a compatible location	Lowest feasible 0% and 3% well LCC; resolves footprint conflict; standardizes maintenance access.
Mudwell structures	316SS replacements at Areas 3, 4, and 7	Lowest structural LCC; 50+ year planning life; eliminates recurring corrosion coating; fits constrained sites.
Area 6 facility	Concurrent integrated receiving, treatment-support, residuals, and operations facility	Shares infrastructure, treats return flows, reduces duplicate construction, supports the fourth SBR, and improves reliability/logistics.
Residuals procurement	City-owned fixed dewatering + haul-only contractor + City-direct or auditable tipping	Highest combined residuals base-case rank; approximately $19.50 million 30-year present worth versus approximately $24.25 million for continued bundled Synagro service; approximately $4.75 million expected present-worth savings; approximately 93 first-year cake loads.

6 Project Costs, Useful Life, and Financial Requirements

This section presents the current planning costs, useful-life and repair/replacement framework, identified project funding, and the City's completed Capital Financing Plan and financial-feasibility analysis. Detailed phase-level cost estimates supporting the cost summaries presented in Sections 6.1 through 6.4 are provided in Appendix B. The signed Capital Financing Plan and supporting financial forecast are provided in Appendix E.

6.1 Phase IVA Cost Estimate

The current identified total cost for Phase IVA is $12,411,090.00. The estimate is organized by wastewater treatment plant and reflects the current design basis for effluent pumping, storage, disinfection integration, instrumentation, electrical improvements, SCADA, process-water facilities, backup disposal, and mudwell replacement at Areas 3, 4, 5, and 7. The plant-level construction subtotals include direct line-item construction, bonds and insurance calculated at 2.5 percent of direct construction, and mobilization calculated at 5 percent of direct construction.

Table 19. Phase IVA Cost Estimate Summary

Cost Element	Amount
Area 3 WWTP construction subtotal	$3,331,425.00
Area 4 WWTP construction subtotal	$2,578,925.00
Area 5 WWTP construction subtotal	$1,847,925.00
Area 7 WWTP construction subtotal	$2,584,300.00
Phase IVA construction before contingency	**$10,342,575.00**
Construction contingency (10%)	*$1,034,257.50*
Phase IVA construction including contingency	**$11,376,832.50**
CEI and project management (10%)	*$1,034,257.50*
Current identified Phase IVA total cost	**$12,411,090.00**

At Area 3, the estimate includes an integrated clearwell/chlorine-contact/holding tank, three effluent pumps, protective coatings, instrumentation, electrical and SCADA improvements, a process-water/reuse pump system, two replacement shallow disposal wells, and a 316 stainless-steel replacement mudwell. The largest Area 3 allowances are $959,000 for the integrated tank, $645,000 for the two shallow wells, $300,000 for the effluent pumps, $300,000 for coatings, and $100,000 for the replacement mudwell.

At Area 4, the estimate includes an integrated chlorine-contact and effluent-storage tank, three effluent pumps, instrumentation and sampling, electrical and SCADA improvements, process-water/reuse pumping, and a 316 stainless-steel mudwell system. The Phase IVA estimate includes a $150,000 allowance for the Area 4 mudwell system, consisting of the tank, two return pumps, and associated appurtenances. No separate Area 4 mudwell allowance is carried outside the Phase IVA total.

At Area 5, the estimate includes a dedicated effluent holding tank, two effluent pumps, flow metering, electrical and SCADA improvements, and process-water/reuse pumping. At Area 7, the estimate includes an integrated chlorine-contact and effluent-holding tank, two effluent pumps, protective coatings, instrumentation and sampling, electrical and SCADA improvements, process-water/reuse pumping, and a 316 stainless-steel replacement mudwell.

The 10 percent construction contingency and 10 percent CEI/project-management allowance are each calculated from the $10,342,575.00 construction subtotal before contingency. Phase IVA design, permitting, and bidding services are carried under the Phase 1 professional-services agreement and are therefore not duplicated as a separate Phase IVA cost. The current identified total cost for Phase IVA is $12,411,090.00.

6.2 Phase IVB Cost Estimate

The current identified total cost for Phase IVB is $26,941,908.00. The estimate incorporates the integrated Area 6 facility scope now reflected in design development, including the multi-compartment prestressed-concrete tank; fourth-SBR, digester, equalization, blower, and master-control improvements; disc filtration; membrane biothickening; centralized residuals receiving and mechanical dewatering; headworks, chemical, and odor-control work; deep-well pumping and backup disposal; the elevated operations/electrical/laboratory building; standby power; SCADA; and site-civil and yard-piping improvements.

Table 20. Phase IVB Cost Estimate Summary

Cost Element	Amount
General and plantwide work	$50,000.00
Multi-compartment CROM tank and associated structures	$4,525,000.00
Biological and aeration systems	$4,045,200.00
Disc filtration	$1,550,000.00
Membrane biothickening	$1,850,000.00
Residuals receiving and mechanical dewatering	$1,700,000.00
Headworks, equalization, odor control, and chemical systems	$865,000.00
Deep-well pumping and backup disposal	$1,750,000.00
Electrical, controls, and elevated operations building	$3,950,000.00
Site civil and yard piping	$600,000.00
Direct construction subtotal	**$20,885,200.00**
Bonds and insurance (2.5%)	$522,130.00
Mobilization (5%)	$1,044,260.00
Phase IVB construction before contingency	**$22,451,590.00**
Construction contingency (10%)	$2,245,159.00
Phase IVB construction including contingency	**$24,696,749.00**
CEI and project management (10%)	$2,245,159.00
Current identified Phase IVB total cost	**$26,941,908.00**

The $4,045,200 biological and aeration subtotal includes the current vendor-quote basis for the SBR, digester, equalization, blowers, and master controls, together with the installation/interface allowance and blower structural support. The $1,700,000 residuals receiving and dewatering subtotal includes $300,000 for truck receiving and raw/sludge lift stations and $1,400,000 for a City-owned mechanical dewatering package, pad, and associated interfaces. Mechanical dewatering is therefore incorporated within the current Phase IVB estimate and is not carried as a separate cost item.

The $1,750,000 deep-well pumping and backup-disposal subtotal includes four installed deep-well pumps, the common header and wellhead connection, instrumentation, new backup shallow wells, and abandonment of three existing shallow wells. The $3,950,000 electrical/controls/building subtotal includes the elevated operations, electrical, and laboratory building; main service, motor-control centers, transformers, and panel relocation; a 900-kW standby generator with automatic transfer and elevated platform; and plantwide SCADA integration.

The estimate applies 2.5 percent for bonds and insurance and 5 percent for mobilization to the $20,885,200.00 direct construction subtotal. The 10 percent construction contingency and 10 percent CEI/project-management allowance are each calculated from the $22,451,590.00 construction subtotal before contingency. The current Phase IVB cost estimate does not include a separately identified allowance for design, permitting, and bidding services. Accordingly, the $26,941,908.00 total represents the currently identified Phase IVB project cost based on the cost components summarized above.

6.3 Phase V Cost Estimate

The current identified total cost for Phase V is $21,835,940.00. The construction estimate is a planning-level allowance for the deep injection well and monitoring well and includes drilling, casing, cementing, development, testing, geophysical logging, specialty field services, wellhead work, and the other contractor-furnished facilities and activities required by the Phase V plans and technical specifications.

Table 21. Phase V Cost Estimate Summary

Cost Element	Amount
Deep injection well components	$12,000,000.00
Monitoring well components	$5,000,000.00
Phase V direct construction subtotal	**$17,000,000.00**
Construction contingency (10%)	$1,700,000.00
Phase V construction including contingency	**$18,700,000.00**
Design, permitting, and bidding	$598,680.00
CEI and project management	$2,537,260.00
Current identified Phase V total cost	**$21,835,940.00**

Identified Phase V professional services total $3,135,940.00, consisting of $598,680.00 for design, permitting, and bidding services and $2,537,260.00 for CEI and project-management services. These amounts reflect the current allocation of applicable professional-services agreements and project-support costs for facilities-planning purposes. Final allocation among SRF-eligible cost categories will be established in coordination with FDEP as the financing agreement and construction-phase scopes are finalized.

The construction allowance remains subject to actual bid quantities, subsurface conditions, final injection and monitoring intervals, drilling progress, testing results, and FDEP permit requirements. The Phase V cost estimate will be refined based on procurement results and final construction-phase service requirements.

6.4 Total Program Cost

The current identified total cost for the complete regional deep injection well program is $81,107,783.48. This amount includes $19,918,845.48 for Phases I through III and $61,188,938.00 for Phases IVA, IVB, and V. The program cost is summarized below.

Table 22. Total Program Cost Estimate Summary

Phase	Construction incl. Contingency	Identified Professional Services	Current identified total cost
Phase 1	$6,807,205.48	$1,375,360.00	$8,182,565.48
Phases 2 and 3B	$7,625,000.00	$660,560.00	$8,285,560.00
Phase 3A	$2,454,750.00	$995,970.00	$3,450,720.00
Phase IVA	$11,376,832.50	$1,034,257.50	$12,411,090.00
Phase IVB	$24,696,749.00	$2,245,159.00	$26,941,908.00
Phase V	$18,700,000.00	$3,135,940.00	$21,835,940.00
PROGRAM TOTAL	**$71,660,536.98**	**$9,447,246.50**	**$81,107,783.48**

Across all phases, construction before contingency totals $66,681,120.48. The program carries $4,979,416.50 in identified construction contingency, producing a construction total including contingency of $71,660,536.98. Identified professional services total $9,447,246.50, consisting of $1,205,058.00 for design/permitting/bidding and $8,242,188.50 for CEI/project management.

For Phases I through III, the construction values reflect current contract amounts and do not include a separate construction contingency. For Phases IVA, IVB, and V, the current planning estimates include a 10 percent construction contingency. Professional-services costs vary by phase based on the applicable agreements and planning assumptions described in Sections 6.1 through 6.3.

The current identified cost of $61,188,938.00 for Phases IVA through V is $7,342,232.40 greater than the $53,846,705.60 amount included in the June 2026 SRF Request for Inclusion. The increase consists of $703,050.00 for Phase IVA, $6,040,502.40 for Phase IVB, and $598,680.00 for Phase V and reflects continued design development, scope refinement, and cost reconciliation completed after preparation of the RFI. The June 2026 RFI amount represents the project cost basis at the time of that submittal; the current phase estimates presented in this amendment provide the updated cost basis for facilities planning and financing.

The current program estimate exceeds the City's approximate $75 million planning objective by $6,107,783.48. The $75 million amount is treated as a cost-control objective rather than a fixed scope ceiling. Continued value engineering will focus on procurement strategy, installation factors, allowances, and opportunities to share or consolidate infrastructure while preserving facilities necessary for hydraulic reliability, treatment performance, lawful effluent disposal, operational continuity, and compliance with the December 31, 2028 implementation deadline.

6.5 Useful Life and Repair/Replacement Planning

The project includes long-lived force mains, wells, tanks, piles, and buildings together with shorter-lived mechanical, electrical, instrumentation, membrane, and dewatering equipment. Long-term financial planning therefore provides for recurring rehabilitation and replacement over the service life of the regional system. The planning useful lives and repair/replacement considerations summarized below form the current facilities-planning basis and will be reflected in the updated Useful Life Certification submitted separately as part of the SRF planning record.

Table 23. Useful-Life and Repair/Replacement Schedule

Asset Class	Planning Useful Life	Repair / Replacement Consideration
Force mains and buried transmission piping	50+ years	Valve/air-release maintenance, leak/pressure testing, localized repair, corrosion/settlement monitoring.
Prestressed-concrete tanks, piles, and structural concrete	50+ years	Joint/coating/access inspection, localized concrete repair, uplift/foundation inspection.
DIW and monitoring-well casing/structure	50+ years	Mechanical-integrity testing, wellhead maintenance, rehabilitation based on permit/testing.
Operations building	50+ years	Roof, HVAC, envelope, electrical, flood/wind inspection and periodic renovation.
316SS mudwell structures	50+ years	Routine cleaning/inspection; no scheduled corrosion recoating.
Remote effluent pumps	15 years	Seal/bearing/impeller service, VFD operation, rotating spare and replacement allowance.
Area 6 DIW pumps	15-20 years	Motor/pump rehabilitation, well-test coordination, planned major overhaul.
Blowers and process pumps	15 years	Bearing/air-end maintenance, efficiency review, rotating spares.
Disc filters and MBT mechanical equipment	15-20 years	Drive/pump replacement; membranes/modules and wear components at manufacturer intervals.
City-owned mechanical dewatering system	20 years	Major rebuild/wear-part replacement approximately every 7-10 years depending on technology and duty.
Mudwell pumps	Approximately 7 years	Duty/standby rotation, seal/bearing service, replacement allowance.
MCCs, VFDs, electrical distribution, generator/ATS	15-20 years	Electronic obsolescence, breaker/VFD replacement, generator load testing/overhaul.
Instrumentation, PLCs, communications, and SCADA hardware	10-15 years	Calibration, sensor replacement, software/communications obsolescence and cybersecurity updates.

The component-level useful-life, repair/replacement, and renewal assumptions used in the life-cycle evaluations are provided in Appendix D.

6.6 Operation and Maintenance Cost Framework

The life-cycle analysis separates alternative-specific residuals costs from costs common to the selected regional system. The residuals model uses the documented current Synagro bundled rate and DMR-based solids production and evaluates City-owned dewatering, contract operation, haul-only/direct tipping, bundled cake hauling, City self-haul, liquid hauling, deferred construction, and mobile/distributed City equipment. The model uses planning assumptions for City dewatering O&M, haul-only transportation, and final disposition where Marathon-specific quotations are not yet available and evaluates the sensitivity of the recommended alternative to those assumptions. Remote effluent pumping, DIW pumping, blowers, fourth-SBR treatment, laboratory/monitoring, generators, SCADA, and well testing are common to the selected regional system and are not assigned solely to the residuals alternative.

Table 24. Operation and Maintenance Costs and Planning Assumptions

Cost / Operating Input	Documented or Base Value	Facilities-Plan Treatment
Synagro bundled service	$1,888.33 per dry-solids-equivalent ton	Documented current baseline; 2%, 3%, 4.03%, and 5.2% escalation cases evaluated
Recent dry-solids production	354.8 DT/yr; 2026 annualized 390.1 DT/yr	DMR-based production; 1% annual growth used in residuals LCCA
Cake solids / payload	20% design target; 19.15% recent observed; 20 wet tons/load	Design and sensitivity basis for wet-cake quantities and truckloads
City dewatering O&M	$350/DT planning base	Planning assumption for labor, power, polymer, washwater, maintenance, testing, and consumables; final equipment/O&M quote required
Haul-only transport	300-mile round trip, $4.50/mile + $100/load planning base	Screening assumption; final Marathon route and contractor pricing required
Direct tipping	$75/wet ton planning base	Screening assumption; final accepting facility, capacity, and tipping terms required
Liquid hauling	5,500-gallon tanker	Used for 2% and 3% liquid-hauling alternatives

Detailed residuals-production, contractor-cost, feed- and cake-solids, hydraulic-return, hauling, and operating assumptions are provided in Appendix C. Detailed life-cycle cost, non-cost ranking, and sensitivity calculations are provided in Appendix D.

6.7 Funding Sources

The current funding stands at $50,743,051.72 in secured funding and $8,509,458.00 in pending funding, for total identified funding of $59,252,509.72. The secured total includes the City's $10,000,000.00 Truist line of credit, which is temporary bridge financing and must ultimately be repaid or replaced with permanent funding. Total identified funding excluding the bridge line is $49,252,509.72.

Table 25. Current Identified Funding Sources, Status, and Amounts

Funding Source	Type	Status	Amount
FDEP LPA0724 SWQR FY 2024-25 preconstruction grant	Grant	Secured	$5,366,666.72
FDEP LPA0724 FKACSC/Stewardship FY 2025-26	Grant	Secured	$2,722,390.00
FDEP LPA0724 FKACSC/Stewardship	Grant	Secured	$2,433,051.00
Truist bank line of credit (bridge loan)	Loan	Secured	$10,000,000.00
SRF Loan WW44040	Loan	Secured	$8,666,273.00
SRF Loan WW44040 additional fund increase	Loan	Secured	$11,490,542.00
SRF Phases IV-V loan	*Loan*	*Pending*	*$8,509,458.00*
FDEP House appropriation	Grant	Secured	$2,500,000.00
FDEP Resilient Florida FY 2026-27	Grant	Secured	$5,064,129.00
FDEP LPA0724 FKACSC/Stewardship FY 2026-27	Grant	Secured	$2,500,000.00

Table 26. Current Project Funding Summary

Funding Summary	Amount
Total secured funding, including bridge line	$50,743,051.72
Total pending funding	$8,509,458.00
Total identified funding, including bridge line	**$59,252,509.72**
Total identified funding, excluding bridge line	**$49,252,509.72**
Total identified grants	$20,586,236.72
Total identified loans, including bridge and pending SRF	$38,666,273.00
Total identified SRF loans	$28,666,273.00

Compared with the $81,107,783.48 current identified total program cost, the remaining need after counting all identified sources, including the $10 million bridge line and the pending Phase IV-V SRF amount, is $21,855,273.76. Because the bridge line is not permanent project funding, the remaining permanent-funding need is $31,855,273.76 after excluding the bridge line but still counting the pending $8,509,458.00 SRF amount. Based only on secured permanent sources and excluding both the bridge line and pending SRF amount, the remaining permanent-funding need is $40,364,731.76.

The funding amounts summarized above represent the City's currently identified project-specific grants, appropriations, loans, and pending assistance. Separately, the Capital Financing Plan prepared for SRF financial-capability purposes uses a $60.0 million SRF capital-cost assumption to evaluate the City's ability to support the anticipated long-term debt associated with completion of the regional program. The $60.0 million amount is a financial-modeling assumption and is not an additional secured funding source to be added to the amounts shown in Table 25 and Table 26. Actual SRF borrowing will be reconciled to final eligible project costs, grant and appropriation proceeds, executed assistance agreements, and project bid results.

6.8 Capital Financing Plan & Financial Feasibility

The City retained Raftelis, its utility rate and financial consultant, to evaluate the financial feasibility of the anticipated State Revolving Fund financing associated with completion of the regional Deep Injection Well Program. Raftelis maintains a multi-year utility financial forecast that considers utility revenues, operating expenses, existing and proposed debt service, capital requirements, and available cash reserves. The forecast was updated to incorporate anticipated SRF debt service associated with the Deep Injection Well Program.

For financial-feasibility purposes, the Capital Financing Plan evaluates $60.0 million of SRF capital cost. The modeled financing includes a 2-percent loan service fee, estimated capitalized interest, and a 2.57-percent interest-rate assumption, resulting in an estimated total amount amortized of approximately $63.56 million. Modeled annual SRF debt service is approximately $4.10 million, or approximately $4.72 million including the identified coverage factor. These values are financial-planning assumptions and will be reconciled to the final SRF financing terms, eligible project costs, and executed assistance agreements.

The Capital Financing Plan identifies wastewater rates, wastewater assessments, stormwater assessments, and infrastructure sales-tax revenues as revenues available to support repayment of the modeled SRF financing. The financial forecast incorporates existing system obligations together with the anticipated DIW-related SRF debt service.

The combined wastewater and stormwater financial forecast demonstrates projected debt-service coverage ratios of approximately 1.36 in FY 2027, 1.89 in FY 2028, 1.60 in FY 2029, 1.30 in FY 2030, 1.45 in FY 2031, and 1.62 in FY 2032. Each projected coverage ratio exceeds the identified minimum coverage target of 1.20. The

forecast therefore demonstrates projected revenue capacity to support existing obligations and the modeled DIW SRF debt service under the financial-planning assumptions.

Table 27. Capital Financing Plan and Financial Feasibility Summary

Financial Planning Element	Financial Planning Basis
Modeled SRF Capital Cost	$60,000,000
Loan Service Fee (2%)	$1,200,000
Estimated Capitalized Interest	$2,359,260
Total Modeled Amount Amortized	**$63,559,260**
Assumed SRF Interest Rate	2.57%
Modeled Annual SRF Debt Service	$4,104,200
Annual Debt Service Including Coverage	**$4,719,830**
Minimum Projected Debt-Service Coverage Ratio	1.30
Identified Minimum Coverage Target	1.20

The values above represent the financial-planning assumptions used in the Capital Financing Plan and supporting forecast. Final loan amounts, interest rates, debt service, and repayment terms will be established through the applicable SRF assistance agreements.

The financial forecast evaluates revenue sufficiency using the City's adopted wastewater rates together with projected future wastewater rate adjustments. For financial-planning purposes, the analysis incorporates projected additional wastewater rate adjustments of 16 percent in April 2027, 16 percent in October 2027, 8 percent in October 2028, and 8 percent in October 2029, followed by inflationary adjustments thereafter. These future adjustments are modeling assumptions and remain subject to future City action. The City may also consider alternative revenue mechanisms, including non-ad valorem assessments on benefiting properties similar to the assessments used for the City's original wastewater-system construction, which could reduce the magnitude of future wastewater rate adjustments.

Under the financial forecast, a representative residential wastewater bill at 4,000 gallons per month is projected to increase from approximately $116.06 in FY 2027 to $156.99 in FY 2030 and $163.34 in FY 2032. These amounts represent modeled customer impacts under the financial-planning assumptions and are not adopted future rates except as separately approved by the City.

Based on the modeled financing, pledged revenues, projected rate and revenue assumptions, and debt-service coverage analysis, the Capital Financing Plan and supporting financial forecast demonstrate the City's projected financial capacity to support the regional DIW program and the associated SRF financing. The executed Capital Financing Plan includes the City's certification of financial capability to provide for adequate construction, operation, and maintenance of the system, including the SRF project. The signed Capital Financing Plan, supporting financial-feasibility narrative, and detailed financial forecast are included in Appendix E.

6.9 Fiscal Sustainability and Asset Management

The City will submit a Fiscal Sustainability Plan or the applicable FDEP certification covering Phases I through V of the regional Deep Injection Well Project in accordance with the SRF submission schedule. The FSP will address the transmission mains, remote storage and pump stations, integrated Area 6 treatment and residuals facilities, electrical/control/building assets, deep injection well, and monitoring well. A revised FSP and a revised Cost & Effectiveness Certification are not required as part of this facilities-plan amendment. The amendment itself retains the detailed alternatives and cost-effectiveness analysis, and the updated Useful Life Certification will be submitted separately.

7 Environmental Review

The refined facilities remain within the previously evaluated regional project and existing/cleared City utility sites. This section updates the environmental record and identifies documents to be incorporated by reference.

7.1 Prior Environmental Record

The environmental review for this project builds upon the City of Marathon's previously submitted and FDEP-accepted *Wastewater Effluent Disposal Deep Injection Well Project – Project Planning & Implementation for FDEP State Revolving Fund Loan, signed and sealed June 26, 2025* and adopted by the City on June 27, 2025. That Facilities Plan incorporated the November 2023 *Wastewater Effluent Disposal Options Planning Document* and documented the environmental setting and anticipated effects of implementing the selected regional Deep Injection Well system.

Section 4 of the prior Facilities Plan evaluated the project service area; geology, topography, climate and hydrology; marine biological communities and environmentally sensitive resources; construction-related land disturbance, noise, air quality, surface-water and traffic effects; cultural and archaeological resources; environmental-justice considerations; long-term operational effects; spill prevention and response; coastal floodplain conditions; and protected-species considerations. The prior planning record also included applicable FEMA flood mapping and City Species Focus Area mapping and parcel-specific species review.

This Facilities Plan Amendment incorporates that environmental planning record by reference. The selected Alternative 1A, wastewater service area, principal force-main corridor, existing WWTP sites, and Area 6 Deep Injection Well location remain unchanged. Accordingly, the prior environmental findings remain applicable except where the refined Phase IVA, Phase IVB, and Phase V facilities create additional or more specific construction, operational, flood-resilience, traffic, residuals-management, or site considerations. Those refinements are addressed in the following sections of this amendment.

7.2 Existing Land Use and Disturbance

Phase IVA work occurs within the operating Area 3, 4, 5, and 7 WWTP sites. Phase IVB and Phase V occur at the existing Area 6 WWTP and the adjacent City-owned parcel south of the plant along Coco Plum Drive. The adjacent parcel is cleared, vacant land that was previously used for commercial dry-boat storage. No expansion outside the City property line is proposed, and no clearing of off-site native vegetation is anticipated.

The Phase V plans identify a temporary laydown area extending along the cleared/project corridor. Construction limits, access, drill-fluid containment, water-table monitoring wells, temporary utilities, staging and restoration must remain within the approved disturbed area and property rights. The site certifications state that the City has acquired the property and rights needed for Phases IVA, IVB, and V.

7.3 Wetlands, Surface Waters, and Coastal Resources

No direct wetland fill or surface-water work is anticipated within the proposed permanent facility footprint. The site is adjacent to coastal and mangrove habitat, so the contractor must strictly maintain limits of construction, erosion and sediment controls, spill prevention, drill-fluid containment, dewatering controls, and stormwater management. The Phase IVB specifications notify the contractor that threatened/endangered species habitat adjoins the property and place responsibility on the contractor to prevent damage.

The project's principal environmental benefit is elimination of routine shallow-well disposal and transfer of AWT effluent to a deep injection zone below underground sources of drinking water. This addresses the nearshore-water-quality concern underlying the litigation and reduces reliance on shallow subsurface disposal. Backup shallow-well use will be limited to defined outage conditions.

7.4 Threatened and Endangered Species

The Florida Keys support federally and state-listed species and sensitive habitat. The project uses existing developed or previously disturbed utility land to avoid and minimize habitat effects. Construction requirements include preconstruction species review where required, worker awareness, stop-work/notification procedures, lighting controls, limits of disturbance, protection of adjacent habitat, and compliance with agency conditions.

The prior SRF Facilities Plan included a parcel-specific review using the City's Species Focus Area mapping for the Area 3, 4, 5, 6, and 7 facilities and the City-owned parcel adjoining Area 6. That review generally concluded that the proposed improvements were located within existing disturbed wastewater facilities or previously disturbed property and would not require disturbance of identified native habitat. This prior analysis is incorporated by reference. The refined Phase IVA, Phase IVB, and Phase V construction limits will continue to be evaluated against current species information and applicable permit or agency conditions, particularly where sensitive habitat adjoins the Area 6 property.

7.5 Cultural and Historic Resources

The work is primarily within existing utility and previously disturbed commercial areas. The plans and specifications include procedures to stop work and notify the City if potential archaeological or historic materials are discovered. The final environmental record should identify the prior State Historic Preservation Officer/Clearinghouse review and whether any updated coordination is needed for deep drilling or expanded foundations.

The prior SRF Facilities Plan reached the same conclusion for the original regional project and established archaeological-discovery procedures that are carried forward for this amendment.

7.6 Environmental Justice and Community Effects

The prior SRF Facilities Plan did not identify significant disproportionate adverse human-health or environmental effects associated with the selected regional project. This amendment updates that finding for the refined Area 6 and residuals-management scope as follows.

The project serves the City's entire wastewater customer base and provides a systemwide environmental and compliance benefit. Construction effects include traffic, noise, drilling activity, temporary lighting, dust, equipment staging, localized access changes, and potential truck activity at Area 6. These effects are temporary and can be minimized through work-hour controls, traffic maintenance, public notice, noise/dust controls, hurricane plans, site security, and coordination with nearby residents and businesses.

The residuals analysis also quantifies the principal outbound hauling effect. Under the first operating-year basis used in the 30-year life-cycle analysis, liquid hauling would require approximately 805 tanker loads per year at 2-percent solids or approximately 537 loads per year at 3-percent solids, compared with approximately 93 cake loads per year after mechanical dewatering to approximately 20-percent solids. Mechanical dewatering therefore reduces outbound movements by approximately 88 percent relative to 2-percent liquid

hauling and approximately 83 percent relative to 3-percent liquid hauling. Incoming interplant residuals deliveries will continue to occur, but centralized processing avoids repeated mobile-dewatering mobilization and substantially reduces the volume requiring long-distance transport to a final receiving facility.

7.7 Construction-Phase Controls

- Erosion and sediment controls installed before disturbance and maintained until stabilization.
- Containment and lawful disposal of drilling fluids, cuttings, development water, chemicals, fuels, washwater and residuals.
- Dewatering and groundwater controls consistent with permits and protection of adjacent waters.
- Spill-prevention, response, inspection, and reporting procedures.
- Dust, noise, lighting, traffic, access and public-safety controls.
- Hurricane and tropical-storm preparedness, demobilization/securement and recovery plans.
- Protection of existing treatment operations, utilities, wells, habitat and public access.
- Archaeological discovery and threatened/endangered species stop-work procedures.
- Restoration of temporary work areas and stabilization of disturbed ground.

7.8 Environmental Determination

Based on the available planning record, the refined Phase IVA, Phase IVB, and Phase V facilities do not change the previously selected regional alternative or create a new service area. They occupy existing/cleared City utility property and are expected to have temporary, controllable construction effects and significant long-term water-quality and compliance benefits. Apex therefore recommends that FDEP confirm continued applicability of the prior environmental determination, supplemented by this amendment and the updated site/flood/species information. If FDEP determines that a revised FCEN/FFONSI or supplemental Clearinghouse review is required, the City should complete it immediately without delaying the technical planning review.

8 Floodplain, Resilience, and Climate Considerations

The entire City is a low-lying coastal community. The practicable project approach is to protect critical wastewater assets in place rather than attempt relocation outside the floodplain.

8.1 Floodplain Setting and Alternatives

FEMA flood mapping in the prior appendices places the treatment-plant sites within coastal Special Flood Hazard Areas, including Zones AE and VE. The Area 6 site plan identifies Zone AE 7 and Zone AE 8 across portions of the project. A no-floodplain location is not reasonably available within the City because the service area, existing plants, force-main corridor, and City-owned Area 6 site are all located in the Florida Keys coastal environment.

Table 28. Floodplain Alternatives

Floodplain Alternative	Evaluation
Relocate all facilities outside the 100-year floodplain	Not practicable. No nearby upland City site exists outside the coastal floodplain; relocation would disconnect the facilities from existing plants and conveyance, require extensive land acquisition, and threaten the court schedule.
Relocate critical equipment within each site	Used where practicable. Electrical, control, laboratory and operator functions are placed in the elevated Area 6 operations building; equipment/platform elevations are raised at remote sites.
Harden facilities in place	Selected overall strategy. Piles, uplift design, elevated equipment, flood-resistant structures/materials, standby power, corrosion resistance, access and emergency procedures reduce risk.

8.2 Vulnerable Assets and Mitigation

The proposed project facilities are located in low-lying areas of Marathon that are subject to coastal flooding and associated storm impacts. Flood-resilient design considerations therefore include structural uplift resistance, protection or elevation of electrical and control equipment, corrosion-resistant materials, continued access following storm events, and preservation of backup effluent-disposal capability where applicable.

Final asset elevations and flood-design criteria will be documented from the signed and sealed construction plans. The final elevation schedule should identify, as applicable, the FEMA panel and map date, flood zone and Base Flood Elevation (BFE), existing and proposed grades, lowest structural elevations, tank top and peak high-water level, pump and motor elevations, MCC/VFD/PLC/SCADA elevations, generator and automatic transfer switch elevations, operations-building finished-floor elevation, wellhead and instrument elevations, applicable datum, and required freeboard.

8.2.1 Area 3 Integrated Tank and Pump Facilities

The Area 3 plans identify FEMA Zone AE-8 NGVD, with preliminary coastal AE-10 NAVD criteria also identified. Final design elevations will be controlled by the signed and sealed plans. Principal vulnerabilities include structural uplift, corrosion, inundation of electrical and control equipment, and limitations on site access following a major storm.

Mitigation measures include flood- and uplift-resistant design, elevated or otherwise protected electrical and control equipment, use of a 316 stainless steel mudwell, and retention of backup disposal and storage capability. Final grade, tank, pump, and electrical-panel elevations should be incorporated into the final elevation schedule.

8.2.2 Area 4 Integrated Tank and Pump Facilities

Current plans identify site-specific AE flood criteria, including AE-6 NGVD, at the relevant site. Final elevations remain subject to confirmation from the signed and sealed construction plans. The primary concerns are structural uplift, equipment inundation, and post-storm site access.

The proposed facilities incorporate foundation and uplift-resistant design, elevated electrical panels and VFDs, storage capacity, and backup disposal capability. Final site and equipment elevations should be documented in the final elevation schedule.

8.2.3 Area 5 Holding Tank and Pump Facilities

The Area 5 signed plans identify the applicable FEMA flood zone and BFE; final structural elevations should be incorporated into the completed asset elevation schedule. The principal vulnerabilities are tank uplift and exposure of pumping and electrical equipment to flood conditions.

Mitigation includes anchorage and foundation design for the tank and associated equipment, elevation of electrical components, corrosion protection, and continued availability of the existing backup disposal system.

8.2.4 Area 7 Integrated Tank and Pump Facilities

The Area 7 plans indicate a 100-year flood elevation of 7.0 feet NGVD (5.59 feet NAVD) and a tank top elevation of approximately 19.91 feet NGVD. The primary vulnerabilities are coastal flooding, structural uplift, and exposure of pumping and electrical equipment.

Mitigation measures include structural uplift design, elevated or protected electrical equipment, a 316 stainless steel mudwell, and backup disposal and storage capability. Final electrical-panel and pump elevations should be verified from the signed and sealed plans and included in the final elevation schedule.

8.2.5 Area 6 Treatment, Storage, and Deep Well Pump Facilities

The Area 6 site plans identify FEMA Zones AE-7 and AE-8. Final elevations for the individual tanks, process equipment, and Deep Injection Well pumping facilities will be controlled by the signed and sealed construction plans.

Because Area 6 will serve as the central receiving, treatment-support, storage, and Deep Injection Well pumping location for the regional system, flood-related vulnerabilities include large-tank uplift, inundation of process and electrical equipment, and the potential for a regional system outage if critical facilities become unavailable.

Mitigation measures include ACIP pile-supported foundations where applicable, flood- and uplift-resistant structural design, elevation or protection of critical equipment, redundant pumps and storage, retention of backup disposal wells, and use of corrosion-resistant materials.

8.2.6 Area 6 Operations and Electrical Building

The Area 6 operations and electrical building will house critical operating functions, including MCC, SCADA, laboratory, and operator facilities. The current planning basis places the critical floor and equipment at approximately Elevation 15 feet; the final datum and finished-floor elevation should be confirmed from the signed and sealed plans.

The principal vulnerability is loss of critical electrical, control, laboratory, and operator functions during or following a major storm. The proposed building therefore incorporates an elevated, pile-supported Risk Category III structure, elevated critical systems, standby power, and hurricane-resistant construction.

8.2.7 Phase V Deep Injection Well and Monitoring Well

Planning for the Deep Injection Well and monitoring well identifies finished site grades near Elevation 12 feet. Final pad, wellhead, instrument, and associated electrical elevations remain to be confirmed from the signed and sealed Phase V documents.

Potential vulnerabilities include flood exposure of the wellhead, instrumentation, electrical equipment, and access to the well facilities. Mitigation measures include flood-resistant foundations, sealed or protected instrumentation, elevated controls, corrosion-resistant materials, and provisions for post-storm inspection of well and instrument integrity.

8.3 Wind, Storm Surge, and Marine Exposure

The Area 6 facility is designed for Risk Category III and Exposure D conditions appropriate to the Florida Keys coastal environment. The operations building, generator, blower platform, tanks and process structures are designed for applicable hurricane wind loads. Major structures use ACIP pile foundations sized from geotechnical calculations for gravity, lateral, uplift, flood and storm effects. Composite reinforcement in piles and 316 stainless-steel exposed hardware/equipment reduce chloride-driven corrosion.

Electrical rooms require conditioned/dehumidified space, positive drainage, sealed penetrations, corrosion-resistant enclosures, protected cable/conduit systems, lightning protection, grounding and surge protection. Outdoor equipment should be NEMA-rated for the environment and located above design flood elevations or otherwise protected.

8.4 Power, Communications, and Operational Resilience

- Standby generation and automatic transfer serving critical treatment, storage, pumping, controls and monitoring loads.
- Redundant plant effluent pumps and Area 6 DIW pumps with staged operation and spare-capacity strategy.
- Local control capability when remote communications are unavailable.
- SCADA alarms and data history for power, level, flow, pressure, pump status, well availability and water-quality parameters.
- Storage at remote plants and Area 6 to provide operating response time during outages.
- Backup shallow wells operated only under permitted/Consent Decree conditions.
- Hurricane securement, shutdown, fuel, staffing, communications and post-storm inspection procedures.

8.5 Sea-Level Rise and Long-Term Adaptation

The project's elevated and pile-supported critical infrastructure provides adaptation capacity beyond minimum ground-level construction. The City should preserve access to future elevation, floodproofing, generator, communications, cooling and controls upgrades through the site layout. The asset-management plan should periodically compare observed flooding, updated FEMA maps, sea-level-rise projections, corrosion conditions and emergency performance with the original design basis and identify capital adaptation needs.

8.6 Public Notice of Floodplain Effects

The City's public-participation record identifies that the project is located within the coastal 100-year floodplain and documents the City's approach of hardening critical wastewater facilities in place because no practicable outside-floodplain location is available. The public project presentation addressed the facilities-plan improvements, project costs and funding, environmental and floodplain considerations, implementation schedule, and related project impacts, and the meeting provided an opportunity for public comment. The floodplain alternatives and mitigation measures applicable to the refined facilities are further documented in this amendment.

9 Public Participation and City Adoption

Public participation for the regional Deep Injection Well project has occurred throughout the alternatives evaluation, project development, and implementation process. This Facilities Plan Amendment builds upon the prior public planning record and documents the additional public review associated with the refined Phase IVA, Phase IVB, and Phase V facilities. Formal City Council adoption of this Facilities Plan Amendment will be documented separately through the adopting resolution included in Appendix F.

9.1 Prior Planning Participation

The November 2023 Juturna planning process included stakeholder outreach to FDEP programs, the South Florida Water Management District, the Florida Keys Aqueduct Authority, the Monroe County School District, and other public and private entities. Juturna presented the completed regional alternatives evaluation to the City Council on December 12, 2023. The Council meeting included public discussion of the alternatives, the potential Area 6 and Crawl Key locations, and the proposed settlement with FOLKs. The Council record documents Area 6 as the City's primary location for implementation of the regional Deep Injection Well system.

The November 2023 planning document, applicable Council records, and related legal documentation are incorporated into the planning record for this amendment.

9.2 Amendment Public-Meeting Approach

The City has provided public review of the refined Deep Injection Well project through a City Council project presentation conducted as part of the City's ongoing public-participation process. The presentation provided updated information regarding the regional project, remaining Phase IVA, Phase IVB, and Phase V improvements, anticipated construction and traffic considerations, current project costs and funding, long-term financing considerations, and the implementation schedule. The meeting was publicly accessible and provided an opportunity for public comment.

Following the public presentation, project information has remained available through the City's Utility Department Deep Injection Well project webpage. This continuing public availability, together with the prior alternatives-planning record and City Council presentations, provides the public-participation basis for this Facilities Plan Amendment.

Formal adoption of this Facilities Plan Amendment will be documented through a City Council resolution. The executed adoption resolution will be included in Appendix F and retained as part of the final SRF planning record.

9.3 Public-Meeting Presentation Content

The public project presentation focused on the status and implementation of the regional Deep Injection Well project. It provided the public with an update on the project phases being advanced, construction and traffic considerations, available and anticipated funding sources, and the schedule for completing the regional system in accordance with the City's implementation obligations. The presentation has remained publicly accessible through the City's website following the meeting.

The completed public presentation, together with the planning information documented in this Facilities Plan Amendment and the prior public planning record, addresses the principal planning elements relevant to the recommended regional project, including:

- the need for the regional Deep Injection Well system and the December 31, 2028 implementation requirement;
- the prior regional alternatives evaluation and continued selection of Alternative 1A at Area 6;
- the Phase IVA remote-plant storage, pumping, disinfection, backup-disposal, and related improvements;
- the integrated Phase IVB Area 6 receiving, treatment-support, residuals-management, electrical/control, operations, and resilience improvements;
- the Phase V Deep Injection Well and Monitoring Well;
- the alternatives and cost-effectiveness considerations supporting the design-development recommendations;
- environmental, floodplain, and resilience considerations;
- current project capital costs, available and anticipated funding, long-term financing, and representative customer impacts;
- the permitting, procurement, construction, and startup schedule; and
- the City's recommendation and requested Council action.

Together with the November 2023 alternatives-planning record, subsequent public project updates, continuing online availability of project information, and the opportunity for public comment, these materials document the City's public-participation process supporting this Facilities Plan Amendment. Formal adoption will be documented separately through the City Council resolution included in Appendix F.

9.4 City Council Adoption

Formal City Council adoption of this Facilities Plan Amendment will be documented by resolution. The adoption resolution will reaffirm the selected Alternative 1A regional system, authorize submission of the planning documentation to FDEP for State Revolving Fund review and funding consideration, and authorize continued implementation of the recommended Phase IVA, Phase IVB, and Phase V facilities. Following execution, the resolution will be included in Appendix F and will form part of the City's final SRF planning record.

10 Permitting, Implementation, Procurement, and SRF Compliance

The remaining phases are being advanced on an expedited, overlapping critical path. Planning approval, permit revisions, procurement, construction, startup, funding, and the operating transition must be coordinated as one program to meet the December 31, 2028 obligation.

10.1 Permit Status

Table 29. Summary of DIW Program Permitting Status

Phase / Facility	Permit / Application	Current Status	Required Closeout
IVA - Area 3	FLA642851 domestic wastewater modification UIC Permit 0277618-217-UC	Domestic modification under FDEP review; replacement-well permit obtained.	Obtain final domestic permit and reconcile 103,000-gal tank, sequence, and 316SS mudwell.
IVA - Area 4	FLA550973-013-DW2P	Permit issued/effective August 6, 2026 for earlier 60,000-gal separate-tank concept.	Submit/obtain minor revision for 77,000-gal integrated tank and 2,800-gal 316SS mudwell.
IVA - Area 5	FLA187364-018-DW2P-RO	Final revision issued April 16, 2026.	Reconcile prestressed-concrete tank and two-pump final design with permit/construction documents.
IVA - Area 7	FLA705250-009-DW1P	Corrected permit reported issued August 13, 2026; earlier draft contained scope errors.	Confirm final 36,000-gal integrated tank, 5,300-gal 316SS mudwell, and process-water system.
IVB - Area 6	FLA579033 modification	Current design has advanced beyond the June application; fourth SBR/0.250 MGD and final residuals scope not yet submitted.	Complete process design report and permit modification for fourth SBR, final tank volumes, dewatering system, and 0.250 MGD basis.
V - DIW / monitoring well	FDEP UIC Class V exploratory-well application	Application submitted; RAI response being prepared; final interval/configuration pending drilling and FDEP review.	Submit RAI response, obtain construction/testing permit, and secure permanent operating authorization after testing.

The City may advance procurement using draft/issued permit documents only to the extent permitted by FDEP/SRF and the bid documents. No construction may proceed without the applicable final permits and approved plans. Bid documents must include a clear permit hierarchy and require contractor compliance with final permit conditions/addenda.

10.2 Procurement and SRF Compliance

The City reports that FDEP approved the competitive best-value RFP approach for the project. The final procurement files will preserve formal advertisement, sealed competitive proposals, published evaluation factors, award based on the submitted proposal, written clarifications only as allowed, and an auditable selection record. Any material change to the procurement method will be coordinated with FDEP before advertisement or award.

The construction contracts will include the applicable FDEP supplementary conditions and federal/state requirements, including Davis-Bacon prevailing wages, disadvantaged business enterprise good-faith efforts, debarment/suspension, civil-rights and equal-employment requirements, records access/retention, American Iron and Steel, Build America Buy America, E-Verify, bonds, insurance, and all permit/environmental conditions. BABA/AIS compliance and any approved general or product-specific waivers will be documented at the item and payment-request level.

10.3 Construction Sequencing and Continuous Operation

Each operating WWTP must remain in service throughout construction except for planned City-approved outages. Bid documents will require detailed phasing, temporary bypass and power, treatment/disinfection/disposal continuity, hurricane securement, tie-in plans, testing, startup, operator training, and acceptance criteria. New legal disposal and treatment capacity must be available before an existing facility required for continuous operation is removed. The Area 3 sequence described in Section 4.2.1 and the integrated Area 6 sequence are controlling planning principles; final methods will be established in the signed plans, permits, contractor work plan, and City outage approvals.

10.4 Operations, Staffing, and Training

The integrated Area 6 facility consolidates regional DIW control, Area 6 treatment support, residuals receiving/thickening/dewatering, laboratory functions, and operator workspace. Final staffing will depend on the selected dewatering technology and whether the City operates the equipment directly or uses a contract operator. Equipment suppliers and contractors will provide startup services, O&M manuals, spare-parts lists, training, control narratives, preventive-maintenance requirements, and performance testing. The City will update operator procedures, emergency response, SCADA alarm response, residuals manifests, sampling, well testing, and hurricane plans before startup.

10.5 Federal and State Funding Requirements

The City and Apex will maintain a bid-item and reimbursement matrix that distinguishes direct DIW work, direct Phase IVA work, shared/common Area 6 infrastructure, treatment-support and residuals work, and any disputed or non-SRF costs. Grant and SRF draws will be assigned to eligible costs without duplication. The updated RFI, completed Capital Financing Plan and supporting financial forecast, Useful Life Certification, FSP commitment, permits, site certifications, environmental record, public-participation record, procurement documents, and final plans/specifications will be maintained as controlled SRF deliverables.

11 Conclusions and Recommendation

Alternative 1A remains the selected and required regional disposal solution. The Phase IVA remote-plant improvements, the integrated Phase IVB Area 6 facility, and the Phase V deep-well/monitoring facilities are necessary components of one regional system and are not independent elective projects.

The component life-cycle analysis confirms the integrated/site-specific Phase IVA CCC and storage configuration, two new 18-inch backup wells at Areas 3 and 6, and 316 stainless-steel mudwell structures at Areas 3, 4, and 7 as the recommended alternatives. These selections minimize 30-year cost on the primary constant-dollar basis while avoiding intermediate transfer pumping, maintaining backup disposal through construction and long-term outages, replacing corroding process appurtenances, fitting the final site layouts, and preserving the City's preferred well-maintenance access. The selected CCC/storage and mudwell alternatives remain lowest throughout the discount-rate sensitivity; the 18-inch wells remain operationally preferred even at the 5% crossover point. Appendix D provides the supporting assumptions, annual cash flows, useful-life and replacement schedules, source register, and sensitivity analyses.

The integrated Area 6 facility is recommended because regional effluent receiving and DIW pumping, Area 6 treatment support, residuals return-flow treatment, electrical/controls, operations space, and resilient site infrastructure overlap physically and operationally. Constructing the components together avoids duplicate work and future disruption and provides the fourth-SBR capacity and control needed for centralized residuals processing.

The residuals life-cycle analysis identifies City-owned fixed dewatering with separately procured haul-only transportation and a City-direct or auditable tipping arrangement as the preferred planning alternative. Using the current Phase IVB residuals capital basis and the expected contractor-service escalation case, the selected alternative has an estimated 30-year present worth of approximately $19.50 million compared with approximately $24.25 million for continued bundled Synagro service, an estimated present-worth savings of approximately $4.75 million. Mechanical dewatering also reduces first-year outbound transportation to approximately 93 cake loads compared with approximately 805 tanker loads at 2-percent liquid solids or 537 tanker loads at 3-percent liquid solids. The sensitivity analysis continues to favor the City-owned alternative across the evaluated Synagro escalation cases. Final equipment, operating, haul-only, and accepting-facility quotations will be used to confirm the economic ranking and final procurement structure before procurement.

The completed Capital Financing Plan and supporting utility financial forecast demonstrate a financing strategy under which the City is projected to maintain debt-service coverage above the identified minimum throughout the forecast period while supporting existing obligations and the modeled SRF financing for the regional DIW program. The City's financing strategy combines grants and appropriations, SRF assistance, utility revenues, and other legally available revenue mechanisms, with final borrowing to be reconciled to eligible project costs and executed funding agreements.

Based on the planning record summarized in this amendment, Apex recommends that the City Council adopt this Facilities Plan Amendment and authorize its submission to FDEP for SRF planning and environmental acceptance and funding consideration. Remaining permit, useful-life, procurement, and final cost-reconciliation documents will continue to be advanced in accordance with the applicable SRF and project implementation schedules so that the City can maintain progress toward the December 31, 2028 implementation requirement.

Appendix A
City Council Meeting Minutes & Legal Documentation

City of Marathon
City Council Action Minutes
November 9, 2021 5:30 pm City Council Meeting Minutes

CALL TO ORDER - A Meeting of the City Council of Marathon, Florida was held on November 9, 2021, in the Marathon Council Chambers, 9805 Overseas Hwy., Marathon, Florida, Mayor Gonzalez called the meeting to order at 5:30 pm.

PLEDGE OF ALLEGIANCE

The Pledge of Allegiance was recited.

ROLL CALL - There were present:

Councilmember John Bartus

Councilmember Steve Cook

Vice Mayor Mark Senmartin

Councilmember Dr. Daniel Zieg

Mayor Luis Gonzalez, comprising a quorum

Also, in attendance were:
City Manager, George Garrett

City Clerk, Diane Clavier

Attorney, Steve Williams

Planning Director Brian Shea

Finance Director, Jennifer Johnson

Building Official, Noe Martinez

Parks & Rec Director, Paul Davis

Resolution 2021-102, Accepting The Results Of The Municipal General Election Held November 2, 2021 For The Election Of Two At Large City Council Seats; And Providing For An Effective Date

MOTION: Bartus moved approval
SECOND: Zieg

Vote of the Motion:
Yes: Bartus, Zieg, Cook, Senmartin, Gonzalez
No: None
Absent: None
Abstain: None

DRAFT

Vote on the Motion: 5 Yes, 0 No, 0 Absent, 0 Abstain

Swearing in of Council Members - Gonzales was sworn in by his son and Wofsey was sworn in by his wife.

Mayor and Vice Mayor Selection – Wofsey nominated Bartus for Mayor. Cook nominated Zieg for Mayor.

Roll Call for Mayor Bartus

Cook – No
Wofsey – Yes
Gonzalez – Yes
Zieg – Yes
Bartus – Yes

Gonzalez nominated Zieg for Vice Mayor. There were no other nominations, and the vote was unanimous.

Approval of Agenda & Consent Agenda

Councilmember Cook pulled the City Manager items under consent. Zieg added Charter Modification under City Council items. Garrett added a Presentation from Monroe County Mayor Coldiron and Salty's acquisition. Williams added Litigation Notice of Intent to File Suit.

MOTION: Zieg moved to approve the agenda as amended.
SECOND: Cook

With no objection from the members of Council, Mayor Bartus declared the motion approved by unanimous consent.

City Council Items:

* Approval of Minutes

Bartus acknowledged Monroe County Mayor Michelle Coldiron and School Board Member John Dick

Veterans Day Proclamation The Council presented the proclamation to John Dick who accepted it on behalf of all the veterans of Marathon. John Dick informed everyone of the Veterans Parade beginning at 11:00 am on Thursday.

Building Inspection Ordinance 2021-18 Discussion (Councilmember Zieg) Zieg explained we had been discussing multi story buildings and the words "multi-story" was left out. Zieg asked the Council to consider inserting the words "two stories or higher." Zieg commented that with the current system, any complaints can prompt an inspection. Cook commented that 2,000 square feet did not bother him, and it

DRAFT

could be left in. Gonzalez questioned if the State was moving forward on new rules. Williams commented that the State was still talking about masks and mandates, and he was shocked it has not come to us yet, but he would rather have something on the books. Wofsey commented that there were a lot of older one-story buildings, and he was in favor of blanketing everyone equally. Martinez commented that single family units were not part of the recertification. Williams suggested starting with multi story buildings first. Zieg questioned if vacation rentals would be treated as commercial. Garrett commented that vacation rentals are single family homes. Martinez commented that the fire department checks vacation rentals for safety related issues

Frank Greenman – commented that vacation rentals have an inspection, and we also have the unsafe structure board. Greenman suggested a $25 fee for the certification.

Bartus informed Greenman the property owner would have to pay the engineer or architect directly.

MOTION: Cook moved to bring back as an ordinance
SECOND: Gonzalez

Vote of the Motion:
Yes: Cook, Gonzalez, Wofsey, Zieg, Bartus
No: None
Absent: None
Abstain: None
Vote on the Motion: 5 Yes, 0 No, 0 Absent, 0 Abstain

Baseball Field Discussion (Gonzalez) Gonzalez explained the baseball diamond at the park and field were not adequate but could be upgraded for about $20,000 each and asked Johnson if funding was available in the budget. Johnson commented that she could make it work with the existing budget.

Peter Chapman spoke for the field upgrade.

Council gave a head nod to move forward.

Landry Sayer Clean Up Day Discussion (Gonzalez) Gonzalez explained we are setting the round two clean up day for Sunday December 12th at 8:00 am starting at Coco Plum Beach.

Fire Pension Board Council Appointment – Garrett explained that Mary Rice had volunteered to serve on the board as the Council appointment. The Council gave a head nod of approval. Zieg thanked Mrs. Rice for volunteering.

Charter Modification (Zieg) Zieg congratulated Gonzalez and Wofsey on their race and explained the turnout was low for this election and would like the Council to consider a four-year term as suggested by the Supervisor of Elections, Joyce Griffith. Gonzalez agreed that there was no better time to do this. Cook also agreed with a four-year term. Bartus suggested two four-year terms with a four year stay out clause. Williams commented he would draft the change as directed. Gonzalez also liked the two four-

DRAFT

year terms with four years out. Zieg questioned if this could be on the same ballot. Williams stated he would have an answer and bring back both.

Monroe County Mayor Michelle Coldiron Presentation – Mayor Coldiron presented Hammer and Susan Runyon with an Honorary Conch Certificate.

City Manager Report:

Park and Recreation Report – Davis gave an overview of his written report.

Marathon Fire Rescue Report – Chief Johnson gave an overview of his written report and stressed that everyone should get vaccinated.

Building Report – Garrett asked if there were any questions, as the building official left the building.

Grants Update – Covelli informed everyone that the Rotary and Skate Park grant should have a shortlist out next week and gave an overview of her written report.

Citizen Comments
Diane Scott commented that the Council should be ashamed of their racist ways, she needs the chair back and the windows are broken at the church, and no one will fix them.

Marina Report – Garrett explained that Cannon was on vacation, but the Marina was running successfully.

MCSO Marathon Substation Report – Hiller gave an overview of the significant cases.

Wastewater Report – Garrett deferred any questions to Steve Williams to address litigation relating to wastewater in another item; the Council had no questions.

Code Report – Garrett reported that Lozier was out this week, the Code Department was down one staff member, but two were hired and will start next week. Zieg commented that the three feeder roads, especially Sombrero Beach Road is an embarrassment, there is all kinds of trash, empty garbage cans on Coco Plum and asked that the Code staff be encouraged to take a more active roll in enforcing our ordinance. Bartus agreed, there were bad displays of couches, and garbage.

Discussion and Direction regarding 107.58-107.62 – Williams provided a PowerPoint and explained that the sign ordinance was unconstitutional and therefore, unenforceable. Williams also explained that in order to curb the continued expansion of signs in the City of Marathon, the current code must be changed to one that is not based on the content of the sign, but instead is narrowly tailored to promoting some public aim, such as preventing traffic hazards or impingement on the rights-of-way. Williams explained the County recently changed its code and hired professionals to assist and spent a lot of time and money. Williams explained he was involved in the County's sign code and suggested we may want to look at it. Council agreed no need to reinvent the wheel or create a problem throughout the County.

DRAFT

Update Regarding Vehicles for Hire – Garrett explained the new software allows us to create an application although we are not enforcing it yet, our ability to regulate is not easy for Uber and Lyft, and there are minor revisions we would like to make to the Ordinance and will look at the details of who will manage it.

Recognition of Donation from Baptist Hospital – Garrett recognized the $25,000 donation from Baptist for the City's fitness court.

ENS Contract ($51,000) Garrett explained the ENS contract will be put out to bid in early February or March and would like a month to month in the total amount of $51,000.

MOTION: Zieg moved to approve
SECOND: Gonzalez

With no objection from the members of Council, Mayor Bartus declared the motion approved by unanimous consent.

MT Causley Contract ($475,300) Garrett explained the annual extension to the contract to accommodate inspectors, it does not include the building official.

MOTION: Zieg moved to approve
SECOND: Cook

With no objection from the members of Council, Mayor Bartus declared the motion approved by unanimous consent.

Salty's Acquisition – Garrett explained the opportunity to acquire the Salty's property and explained the location would be an asset with the marina capacity, building on site and asked for direction to enter negotiations.

MOTION: Zieg moved to proceed with negotiations to acquire Salty's and suspend the laydown rule.
SECOND: Cook

Vote of the Motion:
Yes: Zieg, Cook, Gonzalez, Wofsey, Bartus
No: None
Absent: None
Abstain: None
Vote on the Motion: 5 Yes, 0 No, 0 Absent, 0 Abstain

Litigation and Intent to File Suit under the Clean Water Act and the Endangered Species Act – Garrett commented that FKAA will be in the same position. Williams explained that the Friends of the Lower Keys ("FOLKs") provided notice of intent to take legal action regarding our shallow wells. Williams informed everyone this was turned over to our insurance carrier, and although they have not filed suit yet, it is anticipated, and we have been put on notice.

Quasi-Judicial Public Hearings

Resolution 2021-103, A Request For A Conditional Use Permit And Plat Approval Pursuant To Chapter 102 Article 10 And Article 13 Of The City Of Marathon Land Development Regulations (LDRs) Entitled "Subdivision Of Land/Plats And Re-Plats," And "Conditional Use Permits" Respectively, For A Plat And Site Plan Approval As Submitted By Seaview Commons LLC For Vacant Land On Pescayo Ave, Which Is Described As Lot 1, Block 6 of Coco Plum Beach, Fat Deer Key Marathon, Monroe County, Florida, Having Real Estate Number 00363510-000000. Nearest Mile Marker 54.

The clerk swore in speakers. Council stated they had no exparte communication.

Shea explained the item, location, and conditions of approval. Shea recommended approval of the Seaview Common LLC's Bonefish Harbor preliminary plat proposing five individual lots for single family residences

Mayor Bartus called for speakers, hearing none, closed public comments.

MOTION: Zieg moved approval of Resolution 2021-103
SECOND: Gonzalez

Vote of the Motion:
Yes: Zieg, Gonzalez, Cook, Wofsey, Bartus
No: None
Absent: None
Abstain: None

Resolution 2021-104, A Request For A Final Plat Approval Pursuant To Chapter 102 Article 10 Of The City Of Marathon Land Development Regulations (LDRs) Entitled "Subdivision Of Land/Plats And Re-Plats," For A Plat And Site Plan Approval As Submitted By Seasons 16 LLC For Property Which Is Described As, The Westerly Part Of The West Half Of Block 8 Lot 11, Coco Plum Beach Subdivision, Fat Deer Key, Marathon, Monroe County, Florida, Having Real Estate Number 00363910-000000.

The clerk swore in speakers. Council stated they had no exparte communication.

Shea explained the item, location and conditions of approval and recommended approval of a preliminary plat subdividing one (1) previously subdivided parcel into two (2) lots each only having enough density for single family residences with the conditions outlined.

Mayor Bartus called for speakers, hearing none, closed public comments.

MOTION: Zieg moved approval of Resolution 2021-104
SECOND: Gonzalez

Vote of the Motion:
Yes: Zieg, Gonzalez, Cook, Wofsey, Bartus

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No: None
Absent: None
Abstain: None

Resolution 2021-105, Amending And Replacing City Of Marathon, Florida Resolution 2020-92 And The Development Agreement Attached Thereto To Conform To The December 8, 2020 City Council Vote Regarding Approval Of A Request By Boat Works Investments, LLC (Compass Pointe) For A Revision To The Approved Development Agreement (Resolution 2006-185 & Associated Extensions, Resolutions 2016-32, 2017-46, & 2018-64), Pursuant To Chapter 102, Article 8 Of The City Of Marathon Land Development Regulations ("The Code") Entitled "Development Agreement", In Consideration Of A Recently Approved Conditional Use Permit (Resolution 2018-88) Involving Boat Works Investments, LLC And Tri-Star Affordable Development, LLC; This Revision Thereby Considering The Approval Of Twenty (20) Market Rate Dwelling Units, 15,000 Square Feet Of Commercial Square Footage, And Thirty-Four (34) Wet Slips; On Properties Located At And Adjacent To 39th Street Gulf And 747Through 999 41st Street Gulf And 3905 Louisa Street, Which Are Legally Described As Part Of Block 2 & All Of Block 5, Lots 5, 6, 7, 8, 9, 10, 14,15, 16, 17, 18 & 19 And Filled Bay Bottom North Of And Adjacent ToMarathon Beach Subdivision, Block 1, Lot 1 Of Lincoln Manor Subdivision, Key Vacca, Monroe County, Florida, Having Real Estate Numbers 00337270-000000, 00337280-000000, 00337290-000000, 00337300-000000, 00337310-000000, 00337330-000000, 00103480-000100, 00337380-000000, 00337390-000000, And 00337470-000000. Nearest Mile Marker 49.

The clerk swore in speakers. Council stated they had no exparte communication.

Williams asked that the Council approve the Resolution.

Mayor Bartus called for speakers, hearing none, closed public comments.

MOTION: Cook moved approval of Resolution 2021-105
SECOND: Gonzalez

Vote of the Motion:
Yes: Cook, Gonzalez, Wofsey, Zieg, Bartus
No: None
Absent: None
Abstain: None

Ordinances For Second Public Hearing and Enactment

Ordinance 2021-24, Amending The Code Of Ordinances Chapter 6 Entitled "Buildings And Building Regulations" Article III Entitled "Building Code" Sections 6-25 And 6-26 Entitled "Amendments To The Florida Building Code, Building" And "Amendments To The Florida Building Code, Existing Building" Respectively, Amending The Cumulative Period For Substantial Damage And Substantial Improvement; And Amending The Land Development Regulations Chapter 110 Entitled "Definitions", Article 3 Entitled "Defined Terms"; Providing For Severability; Providing For The Repeal Of Conflicting Provisions; Providing For The Transmittal Of This Ordinance To The State Department Of Economic Opportunity;

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Providing For The Transmittal Of This Ordinance To The Florida Building Commission; And Providing For An Effective Date Upon The Approval Of This Ordinance By The State Department Of Economic Opportunity.

Shea informed the Council there were no changes since the first hearing.

Mayor Bartus called for public comment, hearing none, closed public comments.

MOTION: Bartus moved approval
SECOND: Zieg

Vote of the Motion:
Yes: Bartus, Zieg, Cook, Wofsey, Gonzalez
No: None
Absent: None
Abstain: None
Vote on the Motion: 5 Yes, 0 No, 0 Absent, 0 Abstain

Ordinances for First Public Hearing

Ordinance 2021-25, Approving A Revision To Comprehensive Plan Ordinance 2019-16 Correcting An Error In The Adopted Ordinance Language; Said Correction Is Made Based Upon Revisions To The Proposed Ordinance Language Provided To The City Council At Its Hearing Dated December 10, 2019; Said Revisions Were Motioned And Approved Unanimously By The City Council At The December 10, 2019 Council Meeting; The Effect Of The Council Approved Revisions Was To Remove A Proposed "Sunset Clause" And A Limitation On The Use Of Permanent RV Sites For Functional RVs And Travel Trailers; Providing For The Repeal Of Conflicting Provisions, Providing For The Transmittal Of This Ordinance To The State Department Of Economic Opportunity; Providing For The Advertisement For A Second Hearing Upon DEO's Approval, And Providing For An Effective Date.

Ordinance 2021-26, Approving A Revision To Land Development Regulation (LDR) Ordinance 2020-02 Correcting An Error In The Adopted Ordinance Language; Said Correction Is Made Based Upon Revisions To The Proposed Ordinance Language Provided To The City Council At Its Hearing Dated December 10, 2019; Said Revisions Were Motioned And Approved Unanimously By The City Council At The December 10, 2019 Council Meeting; The Effect Of The Council Approved Revisions Was To Remove A Proposed "Sunset Clause" And A Limitation On The Use Of Permanent RV Sites For Functional RVs And Travel Trailers; Providing For The Repeal Of Conflicting Provisions, Providing For The Transmittal Of This Ordinance To The State Department Of Economic Opportunity; Providing For The Advertisement For A Second Hearing Upon DEO's Approval, And Providing For An Effective Date.

Garrett recommended approval and explained the ordinances were transmitted to DEO improperly.

Steven Witzel – commented that he agreed with the ordinance.

MOTION: Zieg moved approval of Ordinance 2021-25

SECOND: Gonzalez

Vote of the Motion:
Yes: Zieg, Gonzalez, Cook, Wofsey, Bartus
No: None
Absent: None
Abstain: None

MOTION: Gonzalez moved approval of Ordinance 2021-26
SECOND: Zieg

Vote of the Motion:
Yes: Gonzalez, Zieg, Cook, Wofsey, Bartus
No: None
Absent: None
Abstain: None

Ordinance 2021-27, Amending The Future Land Use Map (FLUM) From Residential Medium (RM) To Mixed Use-Commercial (MU-C) For The Property Described As Block 2, Lot 2 First Addition to Seacrest, Key Vaca Marathon, Monroe County, Florida, Having Real Estate Number 00339240-000000; Providing For Severability; Providing For The Repeal Of Conflicting Provisions; Providing For The Transmittal Of This Ordinance To The State Department Of Economic Opportunity; And Providing For An Effective Date Upon The Approval Of This Ordinance By The State Department Of Economic Opportunity.

Ordinance 2021-28, Amending The Zoning Designation From Residential Medium (RM) To Mixed Use (MU) For The Property Described As Block 2, Lot 2 First Addition to Seacrest, Key Vaca, Marathon, Monroe County, Florida, Having Real Estate Number 00339240-000000; Providing For Severability; Providing For The Repeal Of Conflicting Provisions; Providing For The Transmittal Of This Ordinance To The State Department Of Economic Opportunity; And Providing For An Effective Date Upon The Approval Of This Ordinance By The State Department Of Economic Opportunity.

Shea explained the request to amend the FLUM from Residential Medium (RM) to Mixed Use Commercial (MU-C) and Rezone subject property from Residential Medium (RM) to Mixed Use (MU). Staff and Planning Commission recommended approval.

Mayor Bartus called for speakers, hearing none, closed public comments.

MOTION: Gonzalez moved approval of Ordinance 2021-27
SECOND: Zieg

Vote of the Motion:
Yes: Gonzalez, Zieg, Cook, Wofsey, Bartus
No: None
Absent: None
Abstain: None

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MOTION: Zieg moved approval of Ordinance 2021-28
SECOND: Cook

Vote of the Motion:
Yes: Zieg, Cook, Gonzalez, Wofsey, Bartus
No: None
Absent: None
Abstain: None

Resolutions for Adoption:

***A.** **Resolution 2021-106,** Approving A Professional Services Agreement Between The City And Government Services Group, Inc. For Professional Services Related To The City's Annual Non-Ad Valorem Wastewater and Stormwater Special Assessment Programs, In An Amount Not To Exceed $46,500 for Fiscal Year 2022-2023, and $42,000 for Fiscal Year 2023-2024, and Fiscal Year 2024-2025; Authorizing The City Manager To Execute The Agreement And Expend Budgeted Funds On Behalf Of The City; And Providing For An Effective Date

***B.** **Resolution 2021-107**, Approving And Authorizing The City Manager To Enter Into An Agreement With Culver's Cleaning Company For Cleaning Services At Marathon City Hall, Fire Station And Utility/Public Works Building In An Amount Not To Exceed $53,300 Per Year; And Providing For An Effective Date

***C.** **Resolution 2021-108**, Amending The City's Fiscal Year 2020-2021 Budget; And Providing For An Effective Date.

***D.** **Resolution 2021-109**, Authorizing The Sole Source Purchase Of (2) Power-PRO XT MTS High (Cots) With (2) ProCare Power-PRO Prevent Service Agreements In An Amount Not To Exceed $33,687.86; Authorizing The City Manager To Appropriate Funds On Behalf Of The City; And Providing For An Effective Date.

E. **Resolution 2021-110**, Urging The Miami-Dade Board Of County Commission And Florida Department Of Economic Opportunity To Deny The Proposed Development Master Plan (Comp) Amendment Application CDMP 20210003, And Providing An Effective Date.

Bartus explained that similar resolutions have been passed by Islamorada and Monroe County. Bartus commented that the proposed development would create a bottleneck during hurricane evacuations, and could impact our water, such as shortages.

Mayor Bartus called for speakers, hearing none, closed public comments.

MOTION: Bartus moved approval of Resolution 2021-110
SECOND: Cook

DRAFT

Vote of the Motion:
Yes: Bartus, Cook, Wofsey, Gonzalez, Zieg
No: None
Absent: None
Abstain: None

***F. Resolution 2021-111,** Authorizing The City Manager To Execute A Release Of Unity Of Title On Behalf Of The City In The Form Attached To This Resolution Concerning Property Described As Part Of Government Lot 1, Section 9, Township 66 South, Range 32 East, On Key Vaca Monroe County Florida Having Real Estate Number 00102290-000000 And A Part Of Government Lot 1, Section 9, Township 66 South, Range 32 East, On Key Vaca Monroe County Florida; And Providing For An Effective Date.

***G. Resolution 2021-112**, Authorizing The City To Extend The Agreement With Ronald L. Book, P.A. For Professional Consulting And Lobbying Services Before The Legislature Of The State Of Florida; Authorizing The City Manager To Expend Budgeted Funds, And Execute The Extension Agreement; And Providing An Effective Date

***H. Resolution 2021-113** Accepting The Responsible Bid And Approving A Contract Between The City And Cekra, Inc.; In An Amount Not To Exceed $526,127.00 For Bridge Repairs For The Coco Plum Bridge, 116th Street Bridge, And 112th Street Bridge; Authorizing The City Manager To Execute The Contract And Appropriate Funds On Behalf Of The City; And Providing For An Effective Date

***I. Resolution 2021-114**, Approving And Accepting A $8,856.00 Grant From The Florida Department Of Agriculture And Consumer Services For (6) Full Sets Of Turnout Gear; And Providing For An Effective Date.

***J. Resolution 2021-115**, Approving an Agreement between the City of Marathon, and Jeff Vastola for Code Enforcement Special Magistrate Services; Authorizing the Mayor to Execute the Agreement on Behalf of the City; and Providing for an Effective Date.

Citizen Comments

Ingrid Tyree – commented that there were no codes to require mobile homes to do anything and asked that it be put on the agenda next month.

Diane Scott – commented that the Sherriff's office does not enforce the law, she called the Sherriff's office regarding someone defecating on the church walls and she has the authority at the Church to trespass people.

Council Comments

Wofsey wished everyone a happy Veterans Day and asked everyone to come out to the parade.

Cook thanked Johnson and Williams for work they do. Cook read "In Flanders Fields" and commented that 106 years ago in WWI in one battle that lasted 33 days 122,000 soldiers lost their lives and wondered

how this country is becoming numb to the insidious breakdown of our great nation and around the world, how we leave people behind and broken yet again.

Gonzalez thanked staff and informed everyone Marathon High School Cross Country is going to State Championships. Gonzalez asked everyone to do something positive on Thursday.

Zieg congratulated the two winning Councilmembers gave an overview of historical events that happened on this date and thanked staff

Bartus thanked staff and Rotary and all the volunteers. Bartus informed everyone he was married last weekend and raised thousands for Rotary and Presents in Paradise. Bartus congratulated Mr. Wofsey and Gonzalez. Bartus commented that the Country failed in the contract with vets, not honoring agreements with them.

ADJOURNMENT

With no further business to come before the Council, Mayor Bartus adjourned the meeting at 7:49 pm by unanimous consent.

I certify the above represents an accurate summary of the regular Council meeting of November 9, 2021.

_____ _____

Diane Clavier, City Clerk Date

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City of Marathon
City Council Action Minutes
February 14, 2023 4:30 pm City Council Meeting Minutes

CALL TO ORDER - A Meeting of the City Council of Marathon, Florida was held on February 14, 2023 in the Marathon Council Chambers, 9805 Overseas Hwy., Marathon, Florida, Mayor Gonzalez called the meeting to order at 4:30 pm.

PLEDGE OF ALLEGIANCE

The Pledge of Allegiance was recited.

ROLL CALL - There were present:

Councilmember Landry

Councilmember Smith

Vice Mayor Robyn Still

Mayor Gonzalez, comprising a quorum.

Councilmember Matlock was absent.

Also, in attendance were:

City Manager, George Garrett

City Clerk, Diane Clavier

Attorney, Steve Williams

Planning Director, Brian Shea

Finance Director, Jennifer Johnson

Parks & Rec Director, Paul Davis

Utilities Director, Dan Saus

Public Works Director, Carlos Solis

Building Official, Gerard Roussin

Code Director, Ted Lozier

Monroe County Sherriff's Office Captain Hiller

Approval of Agenda & Consent Agenda

Garrett added request for Use of the City of Marathon Meeting Room for Business and Professional Women/Marathon annual fundraiser, Keysino Night on February 18th, Leadership Monroe request for Oceanfront Park as well as Baptist request for Oceanfront park under City Council items as E, F, and G. Garrett also added Settlement Agreement for FOLKS as 6K, Synagro not to exceed amount of $850,000

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as 6L and removed Resolution 2023-12 from the consent agenda . Smith removed the public works report from the consent agenda.

MOTION: Landry moved to approve the agenda as amended.
SECOND: Still

With no objection from the members of Council, Mayor Gonzalez declared the motion approved by unanimous consent.

*Approval of Minutes

KEYS100 Ultramarathon--May 20-21, 2023 Request – Bob Becker explained the request. Still commented on a potential safety issue for the crews last year.

MOTION: Smith moved approval
SECOND: Landry

With no objection from the members of Council, Mayor Gonzalez declared the motion approved by unanimous consent.

Local Contacts for Vacation Rentals Discussion (Mayor Gonzalez) – Gonzalez thanked the community for coming to the workshop and asked Lozier to update everyone regarding what had been done since the meeting. Lozier informed everyone that current staff from other departments were assisting with vacation rentals in the evenings.

Shriners Annual Paper Drive Request For February 18th (Smith) Smith explained the request for approval of the Shriners annual paper drive on February 18th at the intersections of US1 and 107th and 109th Streets.

The Council gave a head nod of approval.

Keysino Night – Gonzalez explained that this event was supposed to be held at the Jet Center but could no longer be held there because of the Federal Agents who have set up there, the Council gave a head nod to allow the event to be held in the chambers and for alcohol to be served on March 11th.

Garrett explained the request from Leadership Monroe and Baptist to use the Oceanfront Park property and serve alcohol, both organizations were aware of FWC use of part of the property and invited them as well as the general public to the Leadership Monroe class graduation. Council gave head nods for approval of both.

City Manager Report
* A. MCSO Marathon Substation Report
* B. Grants Update
* C. Building Report
* D. Park and Recreation Report

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* E. Marathon Fire Rescue Report
* F. Marina Report
* G. Code Report
* H. Wastewater Utilities Report

I. Public Works Report – Smith asked for updates for the beach parking. Solis informed everyone the meters would be installed on Wednesday and Thursday and the website is being set up so that those who own property here and are not renting it out could register their out of state vehicles. Residents whose cars are registered here need not do a thing, as they are exempt from paying for parking. . Gonzalez asked that this be brought back on February 28th for discussion to implement in our code.

Discussion Of Recommended Procedures To Implement Charitable Donations – Garrett recommended an amount of $100,000. Johnson informed everyone this was currently not budgeted, but we would be getting funding back from the Sheriff's office that would normally be put back into the general fund, which is where this funding would come out of. Still commented some families have specific basic needs.

Settlement Agreement regarding FOLKS – Garrett explained the proposed settlement that was received that day. Garrett informed everyone that the agreement allows us to look at additional options regarding the shallow wells and creates a stay. Garrett also informed everyone that we will be ready to put a bid out by March first to create a feasibility study for reuse which we have been looking into anyway.

Synagro not to exceed amount – Garrett asked for head nods for a new not to exceed amount of $850,000 for this contract. Council gave head nods.

Quasi-Judicial Public Hearings:

Resolution 2023-13 Consideration Of A Request For A Conditional Use Permit For A Preliminary Plat And Site Plan Approval As Submitted By La Palma 101 Inc For A Plat Pursuant To Chapter 102, Article 10 And Article 13 Of The City Of Marathon Land Development Regulations (LDRs) Entitled "Subdivision Of Land/Plats And Re-Plats," And "Conditional Use Permits" Respectively, Particularly, 400-800 101 And 104th Street Which Is Described As Part Of Government Lot 2, And Adjacent Bay Bottom, Section 6, Township 66S, Range 33E, Key Vaca, Monroe County, Florida, Having Real Estate Number 00104460-000100 And 00104460-000000. Nearest Mile Marker 52.

The Clerk swore in speakers. Council stated they had exparte communications, but it would not affect their vote.

Shea explained the conditional use request for a preliminary plat of eleven lots; three market rate single family homes and six for the existing three restricted affordable duplexes and a conservation deed restricted lot that will be combined with another parcel. Shea recommended approval with conditions.

The Mayor called for Speakers.

Brad Hager – spoke for the Resolution.

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Josh Mothner – recommended making units available for sale and spoke for the Resolution.

Smith questioned if the deed restricted conservation area was still in compliance. Shea responded yes. Smith asked if all of the conditions have been met and Shea explained the conditions and went over Smiths concerns. Landry asked Mr. Torres about the location of the buffer wall from the neighbors. Shea clarified the affordable designations.

MOTION: Gonzalez moved to approve with the condition of 16, that Mr. Torres will submit a review of applicants for affordable house criteria and 19, regarding affordable home ownership.
SECOND: Still

Vote of the Motion:
Yes: Gonzalez, Still, Smith, Landry
No: None
Absent: Matlock
Abstain: None

Vote on the Motion: 4Yes, 0 No, 1 Absent, 0 Abstain

Resolution 2023-14, A Request For A Conditional Use Permit And Preliminary Plat Approval Pursuant To Chapter 102 Article 10 And Article 13 Of The City Of Marathon Land Development Regulations (LDRs) Entitled "Subdivision Of Land/Plats And Re-Plats," And "Conditional Use Permits" Respectively, For A Plat And Site Plan Approval As Submitted by Vaca Homes, LLC. Located At 11901 Overseas Highway; Which Is Legally Described As Part Of Lot 3 South Of Overseas Highway, Section 5, Township 66 South, Range 33, Fat Deer Key, Monroe County, Florida; Having Real Estate Number 00100740-000000, Nearest Mile Marker 53.

The Clerk swore in speakers. Council stated they had exparte communications, but it would not affect their vote.

Shea explained the request for a Conditional Use Approval for the development of eleven market rate residential units, a club house with a gym, meeting room and office space as well as a preliminary plat. Shea informed everyone of the deceleration lane that FDOT has preliminarily approved. Smith asked that the height for the commercial be taken from the crown of the road at the access point and not the bridge. Smith asked that in addition to the no U Turn sign placed at 117th Street that a no left turn at 120th Street be included as he felt it would enhance safety. Shea explained we could ask the applicant to seek allowance of signage from FDOT.

The Mayor called for Speakers, hearing none, closed the public hearing.

MOTION: Still moved to approve with the amendments discussed.
SECOND: Landry

Vote of the Motion:

Yes: Still, Landry, Smith, Gonzalez
No: None
Absent: Matlock
Abstain: None

Vote on the Motion: 4 Yes, 0 No, 1 Absent, 0 Abstain

Ordinances for Second Public Hearing and enactment

Ordinance 2023-01, Amending The City's Code Of Ordinances, Chapter 26, "Streets, Sidewalks, And Other Public Places." In Order To Modify A Portion Of The Chapter, To Add A New Article IV, And Renumber Articles And Sections; Accordingly, And Providing For An Effective Date.

Shea informed everyone there were no changes since the first hearing.

The Mayor called for Speakers, hearing none, closed public comments.

MOTION: Landry moved approval
SECOND: Smith

Vote of the Motion:
Yes: Landry, Smith, Still, Gonzalez
No: None
Absent: Matlock
Abstain: None

Vote on the Motion: 4 Yes, 0 No, 1 Absent, 0 Abstain

Ordinances For First Public Hearing

Ordinance 2023-02, Amending The City's Land Development Regulations, Chapter 104, "Specific Use Regulations," Article 1, "General Provisions," Section 104.64, "Waterfront Walkways And Docks:"; Providing For Severability; Providing For The Repeal Of Conflicting Provisions; Providing For The Transmittal Of This Ordinance To The State Department Of Economic Opportunity After Final Adoption By The City Council; And Providing For An Effective Date.

Shea explained the cleanup item that adds additional language as it pertains to ADA compliance, removing a conflict in code by adding specific provisions for covered boat lifts, removing a conflict where the minimum water depth distance ends of resources requiring protections, and removing obsolete language pertaining to applications.

The Mayor called for Speakers, hearing none, closed public comment.

MOTION: Smith moved approval,
SECOND: Landry

DRAFT

Vote of the Motion:
Yes: Smith, Landry, Still, Gonzalez
No: None
Absent: Matlock
Abstain: None

Vote on the Motion: 4 Yes, 0 No, 1 Absent, 0 Abstain

Ordinance 2023-03, Amending The City Of Marathon's Comprehensive Plan Modifying Chapter Seven, "Transportation Element," And Intending To Modify Policies 7-3.1.1 Through 7-3.1.3, "Ensure Consistency With The Plan," "Protect Environmentally Sensitive Lands," And "Protect The Airport Hammock Buffer," Respectively, Providing For Severability; Providing For The Repeal Of Conflicting Provisions; Providing For The Transmittal Of This Ordinance To The State Department Of Economic Opportunity After The First Hearing By The City Council; And Providing For An Effective Date.

Shea explained that although the MTH Airport is within the limits of the City of Marathon, permitting and development approvals are issued by Monroe County. To address any concerns that adjacent property owners may express at the reduction of the existing vegetated hammock buffer along Aviation Boulevard, which is specifically cited in the Marathon Comprehensive Plan, County Staff coordinated with City of Marathon Staff requesting input on the proposed amendment. The City of Marathon requested that the proposed mitigation for vegetation removal be revised to reflect the City's mitigation requirements (3 to 1 replacement) and ensure that all invasive exotic vegetation is removed.

The Mayor called for Speakers, hearing none, closed public comment.

MOTION: Still moved approval,
SECOND: Landry

Vote of the Motion:
Yes: Still, Landry, Smith Gonzalez
No: None
Absent: Matlock
Abstain: None

Vote on the Motion: 4 Yes, 0 No, 1 Absent, 0 Abstain

Ordinance 2023-04, Amending Chapter 102, Article 13, Entitled "Conditional Use Permits"; Providing For The Repeal Of All Code Provisions And Ordinances Inconsistent With This Ordinance; Providing For Severability; And Providing For Inclusion In The Code Of Ordinances, City Of Marathon, Florida; And Providing For An Effective Date.

Shea reported that the purpose of the amendment is trifold. The first is clerical cleanup of items listed. Secondly, to specifically state that amendments will be documented in writing. And thirdly, to add language as it pertains to construction guarantees for infrastructure. This language exists in the Platting

code section however, some applicants may seek to create a condominium, and the additional language further protects the City if this route is taken.

The Mayor called for Speakers, hearing none, closed public comment.

MOTION: Smith moved approval,
SECOND: Landry

Vote of the Motion:
Yes: Smith, Landry, Still, Gonzalez
No: None
Absent: Matlock
Abstain: None

Vote on the Motion: 4 Yes, 0 No, 1 Absent, 0 Abstain

Resolutions for Adoption:

A. Resolution 2023-12, Approving A Resolution And Settlement Agreement Between The Parties Identified As The City Of Marathon, Florida, The Florida Department Of Economic Opportunity, And Boat Works Investments LLC Concerning The Project Known As Boatworks; And Providing For An Effective Date

Garrett explained the settlement agreement was part of the last ordinance and asked the Council to approve the agreement.

The Mayor called for Speakers, hearing none, closed the public hearing.

MOTION: Landry moved approval of Resolution 2023-12.
SECOND: Still

Vote of the Motion:
Yes: Landry, Still, Smith, Gonzalez
No: None
Absent: Matlock
Abstain: None

Vote on the Motion: 4 Yes, 0 No, 1 Absent, 0 Abstain

***B. Resolution 2023-15,** Approving The Settlement Of The Litigation Styled *Keys RV Mobile Home Condominium Association Inc. Vs. City Of Marathon*, Case No. 2020-CA-000097m In The Sixteenth Judicial Circuit; Authorizing The Appropriate City Officials To Execute The Settlement Agreement And Any Additional Documents Related To The Settlement; Authorizing The Appropriate City Officials To Take All Actions Necessary To Implement The Terms And Conditions Of The Settlement Agreement; To Execute

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And File All Required Documents With The Court To Conclude The Litigation; And Providing For An Effective Date

***C. Resolution 2023-16,** Approving Grant Agreement ID 22PLN65 Between The City And Florida Department of Environmental Protection For a Citywide Vulnerability Assessment and Adaptation Plan; Appropriating Funds; And Providing For An Effective Date

D. Resolution 2023-17 Approving Subject to Conditions, A Request by Thomas Morris to Abandon The Public Right Of Way Located at 11134 3rd Ave, Described As Being Adjacent To Unnumbered Parcel, Lot 10, Little Venice, Marathon, Having Real Estate Number 00344200-000000. Nearest Mile Marker 53; And Providing For An Effective Date.

Shea explained the request for abandonment and the criteria and explained that as part of the submittal process, documentation is required that there are no objections from abutting property owners and recommended approval.

The Mayor called for Speakers, hearing none, closed public comment.

MOTION: Landry moved approval,
SECOND: Still

Vote of the Motion:
Yes: Landry, Still, Smith, Gonzalez
No: None
Absent: Matlock
Abstain: None

Vote on the Motion: 4 Yes, 0 No, 1 Absent, 0 Abstain

***E. Resolution 2023-18** Approving an Amendment to the Emergency Professional Services Agreement with Early Alert, Inc. For Disaster Response Services by Extending the Term of the Agreement to and Through May 29, 2025; Appropriating Funds; and Providing for an Effective Date

***F. Resolution 2023-19,** Expressing The Council's Support For The Efforts Of The Florida Keys Aqueduct Authority To Situate A Reverse Osmosis Plant In Or Near Marathon, Florida, Providing For An Effective Date

***G Resolution 2023-20,** Authorizing The Purchase Of Pro-Flow Yellow Hose For Emergency Replacement on Apparatus In An Amount Not To Exceed $37,650.00; Authorizing The City Manager To Appropriate Funds On Behalf Of The City; And Providing For An Effective Date.

***H. Resolution 2023-21,** Approving Change Order #2 To The Contract With Reynolds Construction In An Amount Not To Exceed $30,303.40 For The Addition Of Piping Access Points, Platform Improvements, Additional Coatings, And A Signal Converter; Authorizing The City Manager To

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Execute The Contract And Appropriate Budgeted Funds On Behalf Of The City; And Providing For An Effective Date.

***I. Resolution 2023-22**, Approving The Extension Of The Work Authorization Agreement Between The City Of Marathon And Noe Martinez An Additional Six Months; Providing For A Termination Date; Providing For An Effective Date

***J. Resolution 2023-23** Approving A Letter To The Florida Keys National Marine Sanctuary And NOAA National Ocean Service To Be Signed By The Mayor Requesting Increased Funding Levels For The Program And Site With The Pending Final Approval Of The Restoration Blueprint; Providing For And Effective Date; And Providing For Transferal Of The Resolution And Letter To NOAA And Other Interested Parties.

*K. **Resolution 2023-24,** Authorizing The City Manager To Enter Into An Agreement With Live Flyer, Inc. For Cleaning And Inspection Of The Boot Key Harbor City Marina Mooring Field In An Annual Amount Not To Exceed $49,883; And Providing For An Effective Date

*L. **Resolution 2023-25**, Approving A Revision To The Professional Services Agreement Between The City Of Marathon And The Firm Of MT Causley, LLC To Provide Building Application Review Services; Providing For Necessary Building Department Funds; And Providing For An Effective Date

*M **Resolution 2023-26**, Approving And Accepting A Grant Agreement Between The City And The Department Of Economic Opportunity In The Amount Of $1,300,000.00 For The Florida Job Growth Infrastructure Grant Agreement; Authorizing The City Manager To Execute The Agreement; And Providing For An Effective Date.

Citizens' comments

Greg Chorebawiaw – provided a handout regarding the code complaint he had on Manor Lane.

Leo Meyer also spoke about the violation on Manor Lane.

Council Comments

Landry wished everyone a happy Valentine's day and thanked the Council and the public for their input. Landry commended the Park and Recreation staff for the recent Valentines Day Dance and reminded everyone of the upcoming Seafood Festival March 11th and 12th .

Smith thanked the Council and the residents for the turnout of the vacation rental meeting and the Skate Park workshop as he was very encouraged with the attendance. Smith Wished everyone a happy Valentine's day.

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Still thanked everyone and thanked Paul Davis and the Parks staff for the wonderful Valentines Day Dance and reminded everyone of the upcoming Sombrero Beach Run benefitting KAIR, the Code hearing at 2 pm on Thursday and thanked all of the public safety officers and staff.

Gonzalez echoed the comments and thanked Park and Recreation staff for the great event. Gonzalez commented that six weeks ago, there was a commitment to redo the ball fields and that is on track to be completed. Gonzalez thanked staff.

ADJOURNMENT

With no further business to come before the Council, Mayor Gonzalez adjourned the meeting at 7:16 pm by unanimous consent.

I certify the above represents an accurate summary of the regular Council meeting of February 14, 2023

_____ _____

Diane Clavier, City Clerk Date

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City of Marathon
City Council Action Minutes
January 24, 2023 City Council Workshop

CALL TO ORDER

A Workshop of the City Council of Marathon, Florida was held on January 24, 2023 at the Marathon City Hall, Council Chambers, Marathon, Florida, Mayor Gonzalez called the meeting to order at 4:32p.m.

PLEDGE OF ALLEGIANCE

The Pledge of Allegiance was recited.

ROLL CALL - There were present:

Councilmember Lynn Landry

Councilmember Kenny Matlock

Councilmember Jeff Smith

Vice Mayor Robyn Still

Mayor Gonzalez, comprising a quorum.

Also in attendance were:

City Manager, George Garrett

City Attorney, Steve Williams

Deputy City Clerk, Hillary Palmer

Finance Director, Jennifer Johnson

Planning Director, Brian Shea

Anna Hendricks, Vacation Rental Admin./Fire Inspector

Karly Good, Fire Department Administrative Officer

Code Director Ted Lozier

Utilities Director, Dan Saus

Ports and Marina Director, Sean Cannon

Sam Steele, Monroe County Tax Collector

Monroe County Sheriff's Office, Captain Don Hiller

Gonzalez thanked the public for attending and acknowledged Monroe County Tax Collector Sam Steele as a presenter.

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Garrett explained how the agenda layout will be addressed and introduced City Attorney, Steve Williams.

Williams explained the history of the City's vacation rental ordinance, state statute and exemption and how it currently relates to revising the Ordinance.

Garrett commented on the importance of maintaining local control of the City's vacation rental ordinance and introduced Monroe County Tax Collector Sam Steele to speak.

Steele provided a PowerPoint presentation and explained the Monroe County Tax Collectors role in obtaining and maintaining a vacation rental license. He elaborated on the various state and county agencies that also require licenses and collect fees. He explained the many requirements each agency has implemented on the vacation rental licensing process. He provided figures and percentage breakdowns on the allocation of collected fees. He also explained the property manager and owners' responsibility with compliance and maintaining an account with the Tax Collectors office. He informed everyone about the illegal vacation rental hotline and various sources of information that can be found through the Tax Collector's education outreach program.

Citizen asked if illegal renters are turned over to the City of Marathon for non-compliance?

Steele responded that his office is limited on how they are allowed to process non-compliance issues.

Citizen asked if he could have a copy of the Tax Collector's PowerPoint presentation?

Garrett replied that staff will post it on the City's website.

Citizen asked how the 2022 30% increase was contributed by compliance?

Steel explained that the percentage rate was a mixture of several things including compliance.

The Mayor called for a short break at 5:05pm.

Mayor called the meeting back to order at 5:09pm.

Steel explained the City's application currently has a line item for the business tax account and asked if it would be possible to add the tourist development account to the application.

Garrett confirmed it will be added to the application.

Citizen asked if Steel could explain the business tax portion in more detail.

Steel cited the Florida Statutes and Monroe County code of Ordinances as a reference point for requiring the business tax. Steel explained the business tax is required for anyone conducting business and earning monetary revenue off it. He also explained the fees and license requirements associated with the business tax.

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Garrett thanked Steel and introduced Anna Hendricks and Karly Good from the Marathon Fire Department Vacation Rental Department as speakers.

Hendricks and Good provided a PowerPoint presentation and explained the application & review process for obtaining a vacation rental license. They explained how to navigate the City's website to find the vacation rental section, spoke on the various forms and training requirements associated with obtaining and maintaining a vacation rental license and also spoke on the annual renewal & inspection process and online training program. Hendricks highlighted the requirement of having a sign in the yard of the rental and Good highlighted the application process is online only and paper copies are not acceptable.

Citizen asked if the City has ever considered streamlining the vacation rental application process.

Williams responded that previous discussions to streamline the process were unlikely to have occurred.

Citizen suggested restricting the application process and increasing the fees.

Steel replied that each City has different requirements.

Good spoke on the state and county level taxes and licenses.

Sam reconfirmed adding the tourist development tax account portion on the City's vacation rental application.

City Code Compliance Director Ted Lozier introduced himself and provided a PowerPoint presentation which covered an overview of the history and functions of the Code Department. Lozier spoke on the non-compliance issues such as noise, wastewater, trash, debris, and parking issues. Lozier explained the City has a 7 day minimum for vacation rentals and noted other Cities have different rental limits. He spoke on common vacation rental complaints such as renting without a license, trash cans out to soon or in too late, advertising for less than seven nights and occupancy violations. He also spoke on the resources to verify if a property has a valid vacation rental license and noted the City has a tracking software program which the department uses to investigate vacation rental violations. Lozier spoke on the rise of violations which in turn has created more fines and added to the department's revenue.

Mayor Gonzalez thanked all the presenters and opened public comment.

Citizen spoke against the increase of vacation rentals and commented on the negative effect and requested more enforcement from the City. She suggested creating a new department with two employees to include weekend work for enforcement. The citizen also suggested creating a public email address for comments related to vacation rental issues.

Citizen suggested measuring parking spots to address the parking issues.

Williams stated parking measurement requirements are not a part of the City's vacation rental ordinance.

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Citizen asked if houseboats are allowed as vacation rentals?

Williams explained the regulations vary based on the type of boat and added Staff is looking further into how to regulate them.

Steel explained the houseboat rental tax is applied if someone is renting out the boat.
Citizen spoke for more code enforcement from the City. He suggested dividing the City into quadrants and assigning an officer to each quadrant and spoke in support of weekend code enforcement work.

Citizen spoke for more code enforcement officers and heavier code enforcement in general.

Garrett agreed with the Citizen in regard to heavier code enforcement.

Citizen complained that when she called the City to register a code complaint but was not given the anonymous phone number Mr. Steel mentioned and commented the focus should not be on trash can pick-up but rather on assisting homeowners with their permitting issues.

Williams explained per Florida law, code complaints must include your name, phone and address for the complaint to be investigated, but clarified the Monroe County Tax Collector has a different set of rules concerning anonymous complaints.

Steel clarified the Tax Collectors anonymous complaint system.

Citizen suggested increasing licensing fees to discourage lower end vacation rental properties and spoke for more long term rentals.

Citizen commented on the workforce problem and provided examples of restaurants closing during the week due to staffing shortages. Citizen also spoke against neighborhoods turning into vacation rentals.

Citizen spoke in favor of vacation rental properties having management companies, so the properties don't become nuisances.

Citizen asked if it's possible to control the density of vacation rentals in a neighborhood.

Williams commented such control couldn't be obtained without changing the vacation rental ordinance.

Garrett commented that every year the City works with lobbyists regarding the vacation rental issue.

Steel explained the revenues for rentals in Marathon.

Citizen suggested posting no wake signs in the waterways near vacation rentals and spoke for more educational outreach.

Garrett commented that vacation agencies do a lot of outreach.

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Citizen complained about code enforcement issues.

Garrett commented that the code violation process can be lengthy in nature.

Citizen asked if there is something that can be done regarding the overgrown mangroves in the canals.

Shea commented that he would speak to the Citizen after the meeting concerning the matter.

Citizen asked the staff what can be expected after the meeting with regards to the meeting discussion.

Mayor Gonzalez stated he would like to see the topic of vacation rentals on future City Council agendas and commented that meetings with Council, Staff and Code enforcement will commence.

Citizen requested an explanation why Marathon has a seven day minimum vacation rental policy.

Williams explained the policy is written into the City's vacation rental ordinance.

Citizen asked if floating hotel rooms are in violation of the Hurricane evacuation policy?

Garrett commented that the ability to regulate live-a-boards is limited.

Citizen asked where the Tourist Development Council money goes.

Steel explained the Tax Collector Office only collects the money.

Garrett explained the revenue distribution.

Daniel Samess explained the distribution of funds from the tourist development council.

Citizen asked if it's possible to stretch the distribution of the tourist development funds in creative ways to fund more workforce housing efforts.

Daniel Samess explained the allocation of the funds to the Citizen.

Garrett explained the allocation and distribution of funds is a legislative issue.

Mayor Gonzalez called the meeting back to Council for comments.

Matlock spoke in favor of increasing fees to cover more code enforcement officers.

Smith encouraged the public to reach out to the state representatives in Tallahassee to encourage local control of the vacation rental ordinance. He also thanked the public for their participation in the meeting.

Landry thanked the public for their participation and spoke in favor of hiring more code enforcement officers. He also expressed concerns for the limited workforce housing stock in Marathon.

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Still spoke for ongoing public input and more code enforcement officers. She thanked the public for their participation in the meeting.

Mayor Gonzalez thanked the public for attending and spoke for stricter code enforcement and said he would like to see the vacation rental topic on every agenda moving forward.

ADJOURNMENT

With no further business to come before the Council, Mayor Gonzalez adjourned the meeting at 6:35 PM by unanimous consent.

I certify the above represents an accurate summary of the City Council Workshop of January 24, 2023.

_____ _____

Hillary Palmer, Deputy City Clerk Date

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City of Marathon
City Council Action Minutes
February 28, 2023 City Council Workshop

CALL TO ORDER

A Workshop of the City Council of Marathon, Florida was held on February 28, 2023 at the Marathon City Hall, Council Chambers, Marathon, Florida, Mayor Gonzalez called the meeting to order at 4:32p.m.

PLEDGE OF ALLEGIANCE

The Pledge of Allegiance was recited.

ROLL CALL - There were present:

Councilmember Lynn Landry

Councilmember Kenny Matlock

Councilmember Jeff Smith ---VIA Zoom

Vice Mayor Robyn Still

Mayor Gonzalez, comprising a quorum

Also in attendance were:

City Manager, George Garrett

City Attorney, Steve Williams

Deputy City Clerk, Hillary Palmer

Public Works Director/City Engineer, Carlos Solis

Building Official, Gerard Roussin

Planning Director, Brian Shea

Planner, Erin Dafoe

Planning Administrative Assistant, Lorie Mullins

Williams explained Councilmember Smith was not able to attend in person and requested to attend via Zoom. Williams explained under Florida Statutes it takes a vote of the other members present to allow an absent City Council member to attend via Zoom or electronic means.

Gonzalez called for any no votes, hearing none, Councilmember Smith's request was approved.

Gonzalez explained the public is welcome to speak on each topic.

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33rd Street Corridor Project

Heather Carruthers, K2M Design, introduced herself as the Business Development Director, Dane Suchoza, Director of Design and Devon Ayers, project manager and Rachana Kulkarni, Project Architect as the hired engineer and architecture firm for the redevelopment of the 33rd street project.

Mayor Gonzalez acknowledged Monroe County Commissioner Michelle Lincoln in the audience.

Carruthers began the presentation by explaining the history of the 33rd Street revitalization project. She explained the project was originally envisioned in the 2006 edition of City of Marathon Master Plan and then resurfaced in 2017 under the City Management of Chuck Lindsey, but Hurricane Irma stalled the project and stagnation continued throughout the COVID-19 pandemic. The project was re-engaged with K2M Design Firm in the early part of 2022 but was stalled again until after the City Council elections in November that year.

Carruthers identified the civic assets surrounding the 33rd Street properties, such as Fisherman's Hospital, Stanley Switlik Elementary School, out of service Fire Station building, Monroe County Senior Center, Recreation Center and Marathon Yacht Club. She spoke on the mixed ownership of the properties and spoke on the potential future transfers of ownership from Monroe County to the City of Marathon.

Carruthers spoke on the need for a functional fire station at the south end of Marathon and possibly more boat trailer parking by the boat ramp at the end of 33rd Street. Suchoza spoke on City of Marathon's "wish list" including government offices and the opportunity for commercial space that could generate revenue for the City. He commented on the flood zone ramifications in the event of a serious hurricane.

Suchoza identified other surrounding landmark buildings such as the Florida Keys Aqueduct Authority and new Monroe County Library and explained these buildings provide services to the community. He spoke on the parking issues in the 33rd Street area and the idea of elevating the buildings for more parking.

Suchoza spoke on the need for a City master plan to assess the parking situation. He spoke on the need for a civic district and spoke on keeping the option open to other opportunities such as another community park.

Landry thanked K2M for meeting with Council individually prior to the Workshop. He commented on the need for more meetings and spoke for a master plan and supports moving forward with the redevelopment project.

Marathon Yacht Club Representative spoke in favor of the Club being involved in future discussions and spoke in favor of more control over boat trailer parking.

Matlock thanked K2M Design for meeting with Council individually prior to the workshop also and asked what the next step will be and asked if a site plan can be prepared.

Carruthers stated there is a lot more work to be done before a site plan can be prepared and asked Council for their input to develop a master plan.

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Suchoza spoke on densifying the properties and for future building locations which will require a series of meetings to design a master plan.

Garrett spoke on focusing on property ownership, design and reconfiguration of 33rd Street and spoke in favor of more discussions with Council. He supported the idea of a master plan.

Gonzalez thanked K2M Design and expressed a need for a fire station at the south end of town and a need for an upgrade to the Senior and Recreation Centers. He supported the idea of a master plan. He stated he wants to focus on the 33rd Street improvements amidst of all the other ongoing projects within Marathon. He emphasized the need for 33rd Street to be redeveloped as soon as possible and mentioned the City is not in the business to accommodate trailer boat parking.

Still stated she supports a Fire Station at the south end of town also. She suggested a second traffic signal in the south area of town and spoke for the importance of a Recreation Center for the local children. She supported the idea of a master plan.

Carruthers spoke on the importance of preparing a master plan that can grow with the City over time.

Matlock spoke on the possibility of acquiring the Florida Highway Patrol property.

Garrett spoke on the prior history of ownership in the area and explained that planning for the future with regards to acquiring the property is important and stated working with the state levels could take about five years. Garrett confirmed that Council would like to focus on the fire station which is an immediate need.

Carruthers supported Matlock's idea regarding the City obtaining the Florida Highway Patrol building.

Garrett spoke on relocating the various buildings on the corridor for the highest and best use and reaffirmed the Fire Station being as an essential building in the south end of town.

Garrett suggested going back to Tallahassee to lobby for more grant money for the project.

Suchoza spoke on the master plan and the highest and best use of the properties and density factors on the street.

Landry spoke for having more discussions with Monroe County and State officials and spoke for moving forward with a master plan.

Partner suggested the master plan should be called a "future local plan".

George Nugent congratulated the City of Marathon on their accomplishments as a City. He noted the City's various property acquisitions over the years and noted the changes in Marathon over the last forty years. He stated Marathon still has a lot of development potential and encouraged the Council to define

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the use of the subject properties. He congratulated the new Council and the Mayor for his accomplishments.

Parking Meter Discussion

Solis reported the parking meter stations have been installed but the collection system is still in progress. He reported the City's Public Information Officer is preparing a public notice regarding the details of the meters. Solis confirmed the local residents will not be charged. He explained the meter program and noted that if a person's vehicle is registered in Marathon there is no parking fee, which includes beach and boat ramp parking. Solis noted nonregistered vehicles are required to prove year-round residency in Marathon.

Matlock asked if a list of local boat ramp and storage locations can be posted somewhere.

Williams replied that as long as one is not preference it can be allowed.

Gonzalez asked Solis to explain the registration process for residents that do not have access to a computer and suggested paper applications be made available at public buildings such as City Hall, Library, Tax Collector Office, etc.

Solis explained registration is available online and confirmed he could make paper applications available to the public.

Matlock asked if a vote needs to be made for signage regarding the parking meters.

Williams replied no and advised it brought back at regular scheduled City Council Meeting for a vote.

Gonzalez requested an update on the parking meter camera system installation.

Solis reported the camera system installation has been postponed, but yet still forthcoming and noted parking tickets will be issued for taking up multiple spaces.

Gonzalez stated parking for the residents will be free and Solis confirmed.

Building Permit Fee Discussion – Attorney

Williams spoke on the building permit fee refunds for City Council members and stated the Ethics Commission is not willing to give an oral resolution and stated the City must submit a request for opinion in writing. Williams stated the Ethics Commission opinion will be a public record including the personal financial information of the Council members and could take up to two months to receive. Williams stated the three questions he will submit in writing are as follows:

1. Would the refunds be qualified as disproportionately high based on the City's average?
2. If the opinion comes back as three Councilmembers disproportionately high and a quorum could not be reached could City Council waive the refunds or donate to charity.

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3. If both above questions are answered in the negative, the third question is the City Manager able to act outside of a vote of City Council under the building permit statue, either lowering the permitting rates or give refunds.

Williams requested a head nod from Council to request the formal opinion from the Ethics Commission. Lower rate and move forward or continue with ethics commission. Williams advised Council to follow the direction of the Ethics Commission opinion.

Still asked if a written opinion is received would it clear any ethical questioning in the future.

Williams replied yes and explained that Ethics Commission would be responsible for the written opinion.

Landry supported the building permit fee refunds and moving forward with lowering the fees.

Williams explained it would cost the City more money to have the auditors re-review the permitting fee study if the refunds are approved.

Williams asked for a head nod from Council to request an Ethics Commission opinion.

Landry, Matlock and Still provided a head nod to move forward with the Ethics Commission opinion.

Williams confirmed three head nods from Council. He confirmed he will draft a request.

Garrett stated he would speak to the Auditors and Finance Director concerning the re-review of permitting fees.

Gonzalez thanked the public for being present and hopes to see them at the next City Council Meeting on March 14th.

Diane Scott asked to speak and was declined as the Mayor informed her public comment was given after each topic, relevant to the topic.

ADJOURNMENT

With no further business to come before the Council, Mayor Gonzalez adjourned the meeting at 5:43 PM by unanimous consent.

I certify the above represents an accurate summary of the City Council Workshop of February 28, 2023.

_____ _____

Hillary Palmer, Deputy City Clerk Date

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City of Marathon
City Council Action Minutes
December 12, 2023 5:30 pm City Council Meeting Minutes

CALL TO ORDER - A Meeting of the City Council of Marathon, Florida was held on December 12, 2023 in the Marathon Council Chambers, 9805 Overseas Hwy., Marathon, Florida, Vice-Mayor Landry called the meeting to order at 5:30 pm.

PLEDGE OF ALLEGIANCE

The Pledge of Allegiance was recited. Vice-Mayor Landry recognized County Commissioner and former City of Marathon Councilmember, Michelle Lincoln.

ROLL CALL - There were present:

Councilmember Gonzalez

Councilmember Matlock

Councilmember Smith

Vice-Mayor Landry

Mayor Still, Via Zoom-comprising a quorum

Also, in attendance were:

City Manager, George Garrett

Deputy City Clerk, Hillary Palmer

City Attorney, Steve Williams

Planning Director, Brian Shea

Finance Director, Jennifer Johnson

Public Works Director/City Engineer, Carlos Solis

Building Official, Gerard Roussin

Grants Coordinator, Maria Covelli

Parks Director, Paul Davis

Utilities Director, Dan Saus

Deputy Utilities Director, Libby Frazier

Engineer, Chris Nolan

Paralegal, Alli Heller

MOTION: Gonzalez moved to allow Mayor Still to participate in the meeting via Zoom

SECOND: Smith

With no objection from the members of Council, Vice-Mayor Landry declared the motion approved by unanimous consent.

Approval Of Agenda And Consent Agenda

Matlock added 20th Street and 92nd Street Update as City Council Item 5B & 5C.

Palmer announced a member of the public asked for items 6G (Building Department Report), 6I (Wastewater Utilities Report) and 10D (Resolution 2023-121) to be pulled off of the consent agenda.

Matlock pulled item 10E (Resolution 2023-122) from the consent agenda.

Garrett announced staff does not have a Wastewater Utilities Report (Item 6I) to present and there was a Resolution that staff was potentially going to add but decided to bring it forward at the January meeting instead. He also announced that due to the statutory changes invoked last year Ordinance 2023-23 (Item 9A) must have a financial impact statement, which will be provided at the second hearing; however the first hearing will be heard tonight.

Smith pulled item 6C (Public Works Report) off the consent agenda.

MOTION: Smith moved to approve the agenda as amended.
SECOND: Gonzalez

With no objection from the members of Council, Vice-Mayor Landry declared the motion approved by unanimous consent.

Landry welcomed former Councilmember John Bartus to the meeting.

20th Street Update and Discussion-Garrett updated Council that the bollards have not been moved to date, but staff is currently working on the move. Garrett added that upgraded and new lighting have been added to the area where the current barricades are located. He also reported discussions have begun with Marathon Garbage Service to replace the current dumpster with a larger one at the site. Matlock asked for an update on the land ownership and Garrett reported that there is no update at this time but an information request has been submitted to the state. Landry requested an update on security cameras for the area. Garrett reported two bullet proof cameras are scheduled to be installed at the site.

92nd Street Update and Discussion-Garrett reported there is currently a grant application in the process to assist with funding for the project. He also reported the engineered plans have not been submitted to state yet, but they are in the process to be submitted. Covelli reported two grant

applications have been submitted for 92nd Street and both are currently under review. One application is for the Hazard Mitigation Grant Program under Hurricane Ian and the other application is for the Resilient Florida Grant Program. Covelli stated she is following up every week and sending updated pictures of the flooding areas.

Gonzalez asked if there is anything the City can do on a temporary basis until the grants are approved to assist with the flooding on the street and the impact to the residents.

Garrett replied legal staff is currently working on easement agreements with the properties as both sides of the street are privately owned.

Matlock asked if there has been follow-up regarding obtaining signatures on the easements and Garrett replied he is working directly with a resident on the street that is assisting with acquiring signatures.

Approval of Settlement Agreement Friends of the Lower Keys LLC

Garrett reported on the shade session that took place last month in November with Council and spoke on the selections that Council made in the session referenced as alternative 1A & 1D which was to put a deep well at either service area six or crawl key and stated service area six was selected as the primary option. Garrett reported he is in discussions with the Aqueduct Authority, however there are no developments to report at this time. He also stated that everything agreed upon in the shade session is outlined in the five-year term settlement agreement. Garrett recommended approval of the settlement agreement.

The Mayor called for public comments.

Lynda Berrigan - expressed concern and objection regarding the future location of the deep well at the service area six location on Coco Plum. She stated her main objection was to the industrial impact in a residential community and suggested locating the deep well on Crawl Key.

Joyce Newman – Spoke on behalf of Keys Last Stand and stated protecting water quality is one of their main priorities and commended Council for changing the use of shallow injection wells and instead constructing a deep well for safe sewage disposal. She stated Keys Last Stand urges the Council to move forward with plans and implementation of a deep well.

Will Benson – Thanked Council for reaching a reasonable settlement concerning the deep well. He expressed appreciation for the leadership Council has shown for the value of the quality of the Florida Keys waters. He offered assistance with securing grant funding on behalf of the Bonefish and Tarpon Trust organization in regard to the pursuit of the new deep well.

MOTION: Smith moved to approve the Friends of the Lower Keys settlement agreement.
SECOND: Gonzalez

Vote of the Motion:
Yes: Smith, Gonzalez, Matlock, Landry, Still
No: None
Absent: None
Abstain: None

Vote on the Motion: 5 Yes, 0 No, 0 Absent, 0 Abstain

Public Works Report- Smith asked for an update on the City Hall air conditioning system**.** Solis explained the design system for the air conditioning has been modified to have two smaller units on the same operating system which will replace the three larger units in the building. He confirmed the units are currently on order with an expected to be delivered within 2-3 weeks and building permit has been issued. Additionally, Smith asked for an update on Sombrero Boulevard drainage issue. Solis stated there is resolution that will be heard tonight be approve the contract with Weiler Engineering for the stormwater drainage system on Sombrero Boulevard. Solis provided a brief update on the road conditions.

Building Department Report – Roussin stood ready to take any questions. Garrett reported that a new Building Inspector will be joining the Building Department team in February next year, which will begin to shift the Building Department into inhouse inspectors.

Mayor called for public comment.

Patricia McGrath – Asked what type of permits were issued under the "permit submittals" section of the Building Department report.

Roussin explained the permit submittals include all types of permits that have been submitted. McGrath expressed her discontent with the content of permit submittal portion of the report and asked Smith for further clarification. Smith explained the report in more detail to Ms. McGrath

Garrett stated that staff would be happy to meet with Ms. McGrath at a later time and date to go over more details of the report.

Legal Department Report – Williams provided a report on the property located at 520 12th Street and explained there was unpermitted work preformed years ago and the property has since been through the Code Hearing process and as a result there are daily accumulating fines which were reported over $100,000 on the property. He reported there has been no contact from the owner and explained there is no other legal action to take other than foreclosure. Williams requested Councils permission to authorize litigation.

MOTION: Gonzalez moved to authorize litigation on 520 12th Street due to the length the property has been in the Code Department.
SECOND: Smith

Vote of the Motion:
Yes: Gonzalez, Smith, Matlock, Landry, Still
No: None
Absent: None
Abstain: None

Vote on the Motion: 5 Yes, 0 No, 0 Absent, 0 Abstain

Garrett added the Monroe County Contractors Report as item 6L to the agenda and stated Armand Messina was present to speak on behalf of the association.

Discussion of Hurricane Evacuation and BPAS

Garrett explained the state has been in the process of developing a hurricane evacuation model and reported there is a possibility of receiving new units per the Department of Economic Opportunity's outline. Garrett spoke on potential takings cases due to the City's position of being almost out of permits. Garrett stated discussions need to happen to determine how the City will acquire the units.

Williams explained the City has more vacant lots than building permits to issue. He explained DEO is going to release somewhere between 0-7,900 units. Williams expressed his concern to protect the City financially in the future and encouraged Council to ask for as many units as they can get to protect the City from takings cases. Williams stated he reviewed the Monroe County resolution that will address the units at the Commission Meeting on December 13th.

Gonzalez thanked Williams for the update and recommended the City have representation at the Monroe County Commission meeting on 12/13/23. He encouraged Williams and Garrett to attend the meeting to speak on Council's behalf regarding the City's concerns in regards to the units.

Garrett advised that legislative changes this year are forthcoming and staff and council should be prepared. He stated staff will keep Council updated on a weekly basis as the City moves forward. Garrett confirmed he and Williams will be present to speak at the Monroe County Commission meeting on 12/13/23.

Smith stated he feels Council should stay closely tuned into the process as it moves forward and supported City representation at the Monroe County Commission meeting.

Williams explained that if the political opinions differ than that of the County the City will handle delicately and with respect.

Landry supported Williams and Garrett attendance at the Monroe County Commission Meeting.

Monroe County Contractor Association Update – Armand Messina, President of Monroe County Contractor Association provided an update stating that he and the City Manager have been meeting once a week to discuss and resolve issues. He stated that the meetings have helped tremendously to resolve issues and the time spent with the Manager has been invaluable. He stated a lot of progress has been made and issues are getting worked out. He reported no complaints have been received recently from the local contractors with regards to the Building Department. He explained there is still an issue regarding the reception door at City Hall being locked that he is currently working to get resolved. Garrett assured him that by early next year the issue will be resolved as the City is dealing with a staffing shortage currently.

Messina stated he has also been working and meeting with Roussin regularly and expressed he has been very cooperative.

Quasi-Judicial Public Hearings

Resolution 2023-117, Consideration Of A Request For A Conditional Use Permit For Scott Ebert Pursuant To Chapter 102, Article 13 Of The City Of Marathon Land Development Regulations (Code) Entitled "Conditional Use Permits" For Unification Of Two Residential Units Into A Single Family Residential Until With 11 Bedrooms And 11 Bathrooms; Located At 574 Sombrero Beach Road; Which Is Legally Described As Block 2 (Bottom Floor) Southerly And Northernly (Top Floor) Part Of Lot 17, Sombrero Beach Village Boot Key PB5-86, Monroe County, Florida; Having Real Estate Number 00355110-000000 And 00355110-000100, Nearest Mile Marker 50.

Shea provided a staff report which explained the conditional use application for Scott Ebert regarding converting a duplex into a single family residence. The report included a location map, surrounding and current zoning information, existing conditions, proposed use and compliance including parking requirements which are limited to six vehicles and one boat trailer. Shea stated staff and the Planning Commission recommended approval.

Matlock expressed his opposition to the parking requirements and conditional use and felt approval would set a precedent for future developments.

Smith asked why the parking code is not applied to the conditional use and expressed concerns regarding the parking criteria. Shea explained the code allows for adjustments.

Gonzalez expressed concern that there was not a penalty clause listed in the Conditional use and ask what the procedure would be if the parking restrictions are violated. Shea explained the property owner would be given a code citation and would have to go through the code enforcement procedures.

Chad Neller, Applicant, spoke in favor of the project. He stated there is ample room on the property for parking and stated he requested 6 vehicles/1 boat trailer restriction. He reconfirmed the fact of the code enforcement procedure if the parking restrictions are violated.

Smith stated his concerns regarding the parking spaces at the property.

Neller stated the traffic study that was required for the conditional use application is back-up confirmation that six parking spaces will be adequate.

Shea verified the City Code allows for two parking spaces in a single-family home.

Matlock stated he has an issue with the outlined parking spaces and felt there should be more spaces required.

Council discussion.

Williams advised Council that as a Council they are allowed to impose conditions as long as the property owner agrees to it.

Landry asked if the traffic study took into consideration the fact that the property is already a vacation rental and the amount of traffic that flows into a vacation rental verses a single family home. Shea stated that in accordance with the City Code a vacation rental is a single family home and there is no traffic difference as far as the code is concerned. Shea also verified that if the house was destroyed in a hurricane, etc. they can only rebuild one unit up to six bedrooms, unless they go through a conditional use.

Landry expressed opposition with regards to the lot size ratio to the number of bedrooms/bathrooms of the property.

Council reported no ex-parte communication.

Vice Mayor called for public speakers.

Palmer swore in speaker.

Patrica McGrath questioned the number of daily traffic trips reported and asked if there is a cap on the number of bedrooms allowed.

Shea referred to the traffic study report that was conducted and stated he would speak to Ms. McGrath regarding the code requirements separately.

Matlock expressed concerns regarding setting a precedent by approving the conditional use.

Williams explained that each parcel is dealt with uniquely per application and per house. He further explained what happens to one house could be entirely different than that of another and confirmed that Council is not bound by their decision on this parcel to another parcel.

Clerk swore in speaker.

Emma Shumann stated she was having a difficultly understanding the Councilmembers and stated they could do a better job at communicating to the general public. She asked for clarification on the discussion and Landry informed her that public comment is not a question-and-answer session. The speaker asked why there were no women on the council and Landry replied the Mayor is a women and is out of town but present via Zoom.

Smith continued to express his opposition regarding the parking requirements.

Council Discussion.

MOTION: Matlock moved to deny Resolution 2023-117 based on the parking.
SECOND: Smith

Vote of the Motion:
Yes: Gonzalez, Still
No: Matlock, Smith, Landry
Absent: None
Abstain: None

Vote on the Motion: 2 Yes, 3 No, 0 Absent, 0 Abstain

Garrett clarified that the Council voted incorrectly. The motion was to deny conditional use but the councilmember making the motion to deny voted no. He asked Council to make a revised motion.

Willams verified a negative motion was made that three councilmembers voted in favor of and therefore the vote passed and advised Council to reconsider and rephrase the motion to conform to the vote or vote again.

MOTION: Smith moved to reconsider the original motion to deny Resolution 2023-117 based on the parking requirements.
SECOND: Matlock

With no objection from the members of Council, Vice-Mayor Landry declared the motion approved by unanimous consent.

MOTION: Smith moved to deny Resolution 2023-117, based upon the parking requirements
SECOND: Matlock

Council Discussion.

Gonzalez confirmed the motion was to deny the application based on the maximum amount of vehicles, which is six cars and one boat trailer versus however many vehicles/trailers that fit on the property.

Williams stated the vote is simply to deny the conditional use.

Vote of the Motion:
Yes: Smith, Matlock, Landry
No: Gonzalez, Still
Absent: None
Abstain: None

Vote on the Motion: 3 Yes, 2 No, 0 Absent, 0 Abstain

Public Comment

Diane Scott asked Council to find out why the City Attorney has directed staff not to return her calls. She spoke on the Sheriff's office contract with regards to complaints and requested the City Manager request copies of her complaints.

Ordinance 2023-23, Amending Chapter 18, Article III)"Offenses involving Public Peace, Order, and Morals") Of the Code Of Ordinances Of The City Of Marathon By Amending Section 18-124 To Create A Subsection D(a) Which Will Provide An Enforcement Mechanism For Section 18-124; Providing For The Repeal Of All Ordinances Or Parts Thereof Found To Be In Conflict; Providing For Severability; Providing For Inclusion In The Code Of Ordinances And Providing For An Effective Date.

Williams provided a staff report explaining that he and the City Manager met with the Sheriff's Department and discussed the City's current ordinance that does not allow a sheriff deputy to trespass or remove a disgruntled individual from the City parks upon the first interaction with the person. He further explained that this ordinance before Council would allow at the officers discretion the ability to remove someone from the park if they are behaving inappropriately or whatever the officer deems inappropriate. The ordinance would allow the officer to do so on the first call without the necessity of a warning.

MOTION: Gonzalez moved to approve Ordinance 2023-23.
SECOND: Smith

Vote of the Motion:
Yes: Gonzalez, Smith, Matlock, Landry, Still
No: None
Absent: None
Abstain: None

Vote on the Motion: 5 Yes, 0 No, 0 Absent, 0 Abstain

Resolution 2023-121, Approving Grant Agreement No. A2451 Between The City And The State of Florida Department of Environmental Protection For Resurfacing, Restriping, New Fencing, and Pickleball Courts at Community Park Basketball Courts Appropriating Funds; And Providing For An Effective Date.

Garrett stated the grant is specific to resurfacing the basketball courts and striping will follow for the possibility of using it for pickleball.

Public Comment

Patricia McGrath asked how a grant for the City parks falls into Environmental Protection and asked the City to declare a state of emergency until work is caught up.

Garrett explained that the Florida Department of Environment Protection provides grants for a variety of projects, including recreational grants.

MOTION: Gonzalez moved to approve Resolution 2023-121.
SECOND: Smith

Smith asked for verification that pickleball will not be happening on the tennis courts.

George verified there will not be pickleball on the tennis courts, but clarified the grant includes striping on the basketball court for pickleball.

Vote of the Motion:
Yes: Gonzalez, Smith, Matlock, Landry, Still
No: None
Absent: None
Abstain: None

Vote on the Motion: 5 Yes, 0 No, 0 Absent, 0 Abstain

Resolution 2023-122, Awarding a work authorization for modification the Sombrero Blvd storm water drainage system to Weiler Engineering In An Amount Not To Exceed $103,150.00; Authorizing The City Manager To Enter Into Agreements In Connection Therewith, Appropriating And Expending Budgeted Funds; And Providing For An Effective Date

Matlock asked for verification that the direction to the engineers will be injections wells.

Garrett verified that there will be an active injection well opposed to a passive one.

Matlock stated he feels that the road should be raised and felt the locals agree and asked Council if they agreed. He also stated he feels the injection well is a temporary fix.

Garrett spoke for the injection wells and stated it is the best recommendation that staff could provide and verified it is not a temporary fix.

Gonzalez spoke in favor of the injection wells versus raising the road.

Landry asked Johnson if raising the road and the injection well were budgeted. Johnson verified both projects have been budgeted.

Council discussion.

MOTION: Gonzalez moved to approve Resolution 2023-122.
SECOND: Still

Vote of the Motion:

Yes:	Gonzalez, Matlock, Smith, Landry, Still
No:	None
Absent:	None
Abstain:	None

Vote on the Motion: 5 Yes, 0 No, 0 Absent, 0 Abstain

Council Comments

Matlock announced the Marathon Fire Rescue Santa Caravan will be making its rounds on Christmas eve and the Schedule is online. He also announced many local churches will be offering Christmas services.

Smith wished the public and staff happy holidays and warned local traffic is increasing.

Gonzalez thanked staff for their hard work and wished everyone happy holidays.

Landry thanked staff and encouraged the public to reach out to the City Councilmembers. He also announced the Santa Caravan schedule is online.

Still wished everyone a happy and safe holiday season and reminded everyone to be kind to one another.

ADJOURNMENT

With no further business to come before the Council, Vice-Mayor Landry adjourned the meeting at 7:09 pm by unanimous consent.

I certify the above represents an accurate summary of the City Council meeting of December 12, 2023

_____ _____

Hillary Palmer, Deputy City Clerk Date

UNITED STATES DISTRICT COURT
SOUTHERN DISTRICT OF FLORIDA
KEY WEST DIVISION

FOLKs – FRIENDS OF THE LOWER KEYS, LLC, Plaintiff, v. CITY OF MARATHON, FLORIDA Defendant.	Civil Case No. 4:22-cv-10002-JEM **CONSENT DECREE**

Table of Contents

I. JURISDICTION AND VENUE 2
II. APPLICABILITY 2
III. OBJECTIVES 4
IV. DEFINITIONS 4
V. INJUNCTIVE RELIEF 6
VI. REPORTING REQUIREMENTS 7
VII. STIPULATED PAYMENTS 9
VIII. FORCE MAJEURE 11
IX. DISPUTE RESOLUTION 15
X. EFFECT OF SETTLEMENT 16
XI. FEES AND COSTS 17
XII. EFFECTIVE DATE 17
XIII. RETENTION OF JURISDICTION 18
XIV. INCORPORATION AND MODIFICATION 18
XV. TERMINATION 19

WHEREAS, on, January 11, 2022, Friends of the Lower Keys ("FOLKs") filed this action against defendant City of Marathon ("the City" or "Defendant") pursuant to the citizen suit provision of the Clean Water Act ("CWA"), 33 U.S.C. §§ 1251, *et seq*., alleging unpermitted discharges in violation of the CWA and, pursuant to the citizen suit provisions of the Endangered Species Act ("ESA"), 16 U.S.C § 1540, alleging the illegal take of animals protected by the ESA;

WHEREAS, FOLKs and the City have negotiated in good faith and have reached a settlement of the issues raised in the Amended Complaint which is memorialized in this Consent Decree;

WHEREAS, the City's agreement to this Consent Decree is not an admission of liability to the allegations arising out of the transactions or occurrences alleged in the Amended Complaint, nor is it an admission of the accuracy or veracity of any fact alleged;

WHEREAS, the Parties recognize, and the Court by entering this Consent Decree finds, that this Consent Decree is fair, reasonable, in the public interest, and furthers the objectives of the Clean Water Act.

NOW, THEREFORE, with the consent of the Parties, it is hereby **ORDERED, ADJUDGED AND DECREED** as follows:

I. JURISDICTION AND VENUE

1. This Court has jurisdiction over the subject matter of the claims asserted by FOLKs pursuant to 33 U.S.C. § 1365(a), 28 U.S.C. §§ 1331, 1355, and 1367. Venue is proper in this judicial district pursuant to 33 U.S.C. §§ 1319(b), 1365(c), and 28 U.S.C. § 1391(b) and (c). The parties waive any and all objections that they may have to the Court's jurisdiction to enter and enforce this Consent Decree.

II. APPLICABILITY

2. The provisions of this Consent Decree apply to and bind FOLKs and the City (collectively, "Parties"), including any successors or assigns. The Parties certify that their undersigned representatives are fully authorized to enter into this Consent Decree, to execute it on behalf of the Parties, and to legally bind the Parties to its terms.

3. The Parties agree to be bound by this Consent Decree and not to contest its validity in any subsequent proceeding to implement or enforce its terms. By entering into this Consent Decree, the City does not admit liability for any purpose as to any allegation or matter. Nothing in this Consent Decree shall constitute an admission of any fact or a waiver of any right unless specifically set forth herein.

4. No change in ownership or corporate or other legal status of the City or any transfer of the City's assets or liabilities shall in any way alter the responsibilities of the City or any of its successors or assigns under this Consent Decree. Except to the extent authorized by Section VIII (Force Majeure), and unless such failure to take action is prohibited or prevented by law, in any action to enforce this Consent Decree, the City shall not raise as a defense the failure by any of its agents, servants, contractors, employees, successors or assigns to take actions necessary to comply with this Consent Decree.

5. Except as otherwise provided in this Paragraph 5, the sale or transfer of ownership or operation of any portion of the WWTF or the WCTS as those terms are defined below, does not relieve the City of its obligations under this Consent Decree. No later than 30 days prior to sale or transfer of ownership or operation of any portion of the WWTF or the WCTS, the City shall give written notice of this Consent Decree to each purchaser or successor in interest. The City also shall give written notification to FOLKs of the anticipated sale or transfer of ownership or operation of the WWTF or the WCTS at least 30 days prior to the scheduled date of such sale or transfer and may seek from the Court a modification of this Consent Decree that would transfer responsibility for compliance with these provisions to its successor. The Court shall grant such request if the successor is ready, willing, and able

to fully implement obligations the successor would assume under the Consent Decree.

III. OBJECTIVES

6. The express purpose of the Parties entering into this Consent Decree is for the City to take agreed-upon measures to permanently cease its Shallow Injection Well disposal practices, except when necessary for backup, in resolution of this litigation.

IV. DEFINITIONS

"AWT" shall mean Advanced Wastewater Treatment as set forth in section 403.086(11)(d)1, Florida Statutes (2023).

"Deliverable" shall mean any written document required to be prepared and/or submitted by or on behalf of the City pursuant to this Consent Decree.

"Deep Injection Well" shall mean a Class 1 Injection Well drilled to a depth of between 3,000 to 3,600 below land surface, into the "boulder zone" of the sub-surface geology that is well below any potential underground source of drinking water, to be used for disposal of the City's AWT Effluent.

"Effluent" shall mean water flowing out of any WTP.

"FDEP" shall mean the Florida Department of Environmental Protection.

"Semi-Annual" or "**Semi-Annual Period"** shall mean the six-month periods ending on June 30th and December 31st of each year.

"Semi-Annual Report" shall mean the report that the City shall prepare and submit for each Semi-Annual Period, due on the 30th day after the end of each Semi-Annual Period.

"Shallow Injection Well" shall mean any Class V Shallow Injection Well used for the disposal of AWT Effluent.

"Wastewater Collection and Transmission System ("WCTS")" shall mean all pipes, force mains, gravity sewer lines, lift or pump stations, manholes and appurtenances thereto, owned or operated by the City to collect and convey municipal sewage (domestic, commercial and industrial) to the WWTF.

"Wastewater Treatment Facility ("WWTF") shall mean the aggregate of all devices or systems used in the storage, treatment, disposal, and reclamation of municipal wastewater and includes all facilities owned, managed, operated, and maintained by or on behalf of the City.

"Wastewater Treatment Plant ("WTP") shall mean that portion of the WWTF which is designed to provide treatment of municipal sewage, including, without limitation the facilities located at Area 3 (9805 Overseas

Highway), Area 4 (5601 Overseas Highway), Area 5 (506 106th Street Gulf), Area 6 (10045-55 Overseas Highway), and Area 7 (59275 Overseas Highway).

"Permits" shall mean all permits issued by FDEP to the City of Marathon related in any way to its WWTF, WCTS, Class V Shallow Wells or Class I Deep Injection Well.

V. INJUNCTIVE RELIEF

7. The City shall construct all infrastructure necessary to permanently convey all of its AWT Effluent to a Deep Injection Well for disposal as described as Alternative 1A in the *Wastewater Effluent Disposal Options Planning Document (*November 9, 2023) ("Feasibility Study") and summarized in Attachment A, incorporated herein. The Parties, by mutual written agreement, may change the disposal alternative to Alternative 1D identified in the Feasibility Study and as summarized in Attachment B, incorporated herein. By no later than **December 31, 2028**, the City shall (a) commence Deep Injection Well disposal of all of its AWT Effluent and (b) permanently cease all use of Shallow Injection Wells except as backup wells for use only when the Deep Injection Well is out of service because of equipment failure, power failure, or the need for mechanical integrity testing or repair.

8. The City shall convey only AWT Effluent for disposal at its Deep Injection Well and Shallow Injection Wells, and it shall convey only AWT Effluent additionally treated for salinity for any land applications (*i.e.,* on, above, or into the surface of the ground through spray irrigation or other irrigation techniques). *Wastewater Effluent Disposal Options Planning Document (*November 9, 2023).

9. The City's Permits and Permit applications regarding its WWTF shall be consistent with the terms of this Consent Decree.

10. The City shall apply for permits to construct the deep injection well within 18 months of the Effective Date.

VI. REPORTING REQUIREMENTS

11. Semi-Annual Reports. Beginning with the first full Semi-Annual Period after the Effective Date and continuing with each Semi-Annual Period thereafter until termination of this Consent Decree, the City shall submit a Semi-Annual Report to FOLKs for review and comment. At minimum, the Semi-Annual Report shall include the following information:

a. Status and progress made since the prior Semi-Annual Report as to the work required under this Consent Decree and its Attachment.

b. A description of the status of all FDEP Permits and any other state or federal permits (e.g., Florida Department of

Transportation) related to the work required under this Consent Decree.

c. A list of violations of WWTF Permit effluent violations or capacity exceedances.

12. The City shall provide additional documents requested by FOLKs related to the Semi-Annual Report or this Consent Decree as soon as reasonably possible whenever requested in writing by FOLKs.

13. Nothing herein prevents the City from regularly communicating directly with FOLKs' technical consultants concerning the work required hereunder.

14. The City shall post all Semi-Annual Reports on its website within 10 days after submittal to FOLKs. The City shall ensure that each Semi-Annual Report remains accessible to the public through the City's website until final termination of this Consent Decree in accordance with Section XV (Termination).

15. During the life of this Consent Decree, the City shall preserve non-privileged records and documents, including computer-stored information, in its possession that document the City's performance under this Consent Decree.

16. All documents and notices required to be forwarded by one Party to another, and any notifications that must be made in writing, shall be sent

to the following individuals as electronic computer files at the e-mail addresses specified below, or to a mailing address if a given document cannot be e-mailed. Any change in the individuals designated by either Party must be made in writing to the other Parties.

FOLKs:

Kevin Draganchuk, P.E., BCEE
President and Principal Engineer, CEA Engineers, P.C.
Board Certified Environmental Engineer – Water Supply and Wastewater Specialty
KDraganchuk@ceaengineerspc.com
Phone: 845-372-9674

With a copy to Counsel for FOLKs:
Caron Balkany, Esq.
balkany@aol.com

City of Marathon:

Steven T. Williams
City Attorney, City of Marathon
9805 Overseas Highway
Marathon, FL 33050
Phone: 305-289-4103
williamss@ci.marathon.fl.us

VII. STIPULATED PAYMENTS

17. Schedule of Amounts. The City shall pay $1,000 per day for non-compliance with the Deep Well Injection Project Deadline under Paragraph 7. The City may, however, seek a reduction or waiver of penalties by presenting

evidence that the sole cause of delay was the failure to obtain financing despite its diligent efforts.

18. Payment Deadline. Any stipulated payments due hereunder shall be paid within 60 days of FOLKs' written notice of noncompliance, with a copy to FOLKs under Paragraph 16. If the City disputes its liability for any stipulated payment(s) demanded by FOLKs, it shall provide a written notice of a dispute to FOLKs on or before the payment due date, and the matter shall be resolved through Dispute Resolution under Section IX (Dispute Resolution). The City's failure to invoke dispute resolution by the due date herein shall constitute a waiver of its right to dispute stipulated payments.

19. Environmental Benefit Payment ("EBP Payment"). All payments shall be paid to a third-party recipient to be identified by mutual agreement of the Parties within 30 days of the date of FOLKs' written notice or resolution of a dispute, whichever is later, to be used only for the express purpose of projects in the Florida Keys for nutrient reduction, habitat restoration (e.g., artificial reefs, seagrasses, oyster beds, wetlands, stream restoration) or water quality monitoring or improvements ("EBP Recipient"). The EBP Recipient shall be a not-for-profit organization. EBP payments shall not be used for political purposes, nor shall any EBP payments be disbursed to FOLKs. Upon identification of the EBP Recipient by mutual agreement of the Parties, the

Parties shall notify the Court and will provide verification from the EBP Recipient that the EBP will be used for the purposes specified above.

VIII. FORCE MAJEURE

20. "Force Majeure," for purposes of this Consent Decree, is defined as any event arising from causes beyond the control of the City, of any entity controlled by the City, or of the City's consultants and contractors that delays or prevents the performance of any obligation under this Consent Decree despite the City's best efforts to fulfill the obligation. The requirement that the City exercise "best efforts to fulfill the obligation" includes using best efforts to anticipate any potential force majeure event and best efforts to address the effects of any such event (a) as it is occurring and (b) after it has occurred to prevent or minimize any resulting delay to the greatest extent possible. "Force Majeure" does not include the City's financial inability to perform any obligation under this Consent Decree.

21. Where any compliance obligation under this Consent Decree requires the City to obtain a Federal, State, or local permit or approval, the City should submit timely and complete applications and take all other actions required by law and by the permitting authority to obtain all such permits or approvals and shall provide a copy of the application to FOLKs when submitted to the permitting authority. The City may seek relief under the provisions of

this Section VIII of this Consent Decree (Force Majeure) for any delay in the performance of any such obligation resulting from a failure to obtain, or a delay in obtaining, any permit or approval required to fulfill such obligation (such delay, a **"Permitting Delay"**) to the extent that the City has submitted timely and complete applications and has taken all other actions required by law and by the permitting authority to obtain all such permits or approvals.

22. Where any compliance obligation under this Consent Decree requires the City to procure or receive shipments of goods, materials, or equipment the City shall commence and diligently pursue any procurement procedures necessary to fulfill the obligation, including without limitation, requests for proposals, requests for bids, the issuance of purchase orders, receipts or confirmations which document orders for or purchase of goods, equipment, or materials, and the like. The City may seek relief under the provisions of this Section VIII (Force Majeure) for any delay in the performance of any such obligation resulting from delayed shipment or delivery of goods, equipment, or materials, or from shipping damage to goods, equipment, or materials (such delay, a **"Procurement Delay"**), to the extent that the City has diligently pursued procurement necessary to comply with its obligations under this Consent Decree.

23. If any event occurs or has occurred that may delay the performance of any obligation under this Consent Decree, whether or not caused by a Force

Majeure event, the City shall provide notice by email to FOLKs within 72 hours of when the City first knew that the event might cause a delay (the **"Initial Notice"**). Within 14 Days thereafter, the City shall provide in writing to FOLKs an explanation and description of the reasons for the delay; the anticipated duration of the delay; all actions taken or to be taken to prevent or minimize the delay; a schedule for implementation of any measures to be taken to prevent or mitigate the delay or the effect of the delay; the City's rationale for attributing such delay to a force majeure event if it intends to assert such a claim; and a statement as to whether, in the opinion of the City, such event may cause or contribute to an endangerment to public health, welfare or the environment ("**Written Explanation**"). The City shall include with the Written Explanation all available documentation supporting the claim that the delay was attributable to a Force Majeure event. Failure to comply with the above requirements shall preclude the City from asserting any claim of Force Majeure for that event for the period of time of such failure to comply, and for any additional delay caused by such failure. The City shall be deemed to know of any circumstance of which the City, any entity controlled by the City, or the City's contractors knew or should have known.

24. If FOLKs agrees that the delay or anticipated delay is attributable to a Force Majeure event, the time for performance of the obligations under this Consent Decree that are affected by the Force Majeure event will be

extended for such time as is necessary to complete those obligations. An extension of the time for performance of the obligations affected by the Force Majeure event shall not, of itself, extend the time for performance of any other obligation.

25. FOLKs will notify the City in writing of the length of the extension, if any, for performance of the obligations affected by the Force Majeure event. If FOLKs does not agree that the delay or anticipated delay has been or will be caused by a Force Majeure event, FOLKs will notify the City in writing of its decision.

26. If the City elects to invoke the dispute resolution procedures set forth in Section IX (Dispute Resolution), it shall do so no later than 14 days after receipt of FOLKs' notice. In any such proceeding, the City shall have the burden of demonstrating by a preponderance of the evidence that the delay or anticipated delay has been or will be caused by a Force Majeure event, that the duration of the delay or the extension sought was or will be warranted under the circumstances, that best efforts were exercised to avoid and mitigate the effects of the delay, and that the City complied with all requirements above. If the City carries this burden, the delay at issue shall be deemed not to be a violation by the City of the affected obligation of this Consent Decree identified to FOLKs and the Court.

IX. DISPUTE RESOLUTION

27. The Dispute Resolution procedure of this Paragraph shall be the exclusive mechanism to resolve any disputes arising under this Consent Decree. Any dispute that arises under this Consent Decree shall initially be subject to a period of informal negotiations, which shall not extend beyond 30 days unless the Parties otherwise mutually agree in writing to an extension of the informal negotiation period. The dispute shall be considered to have arisen on the date one Party receives written notification from the other, specifically referencing this Paragraph, that there is a dispute. If the Parties cannot resolve a dispute by informal negotiations, then either Party may file a motion with the Court to resolve the dispute. The motion shall refer to this Consent Decree and Paragraph and shall set forth the nature of the dispute and a proposal for its resolution. The Court shall determine which proposed resolution is most in keeping with the objectives, goals, and requirements of this Consent Decree and the Clean Water Act and the Endangered Species Act. The City's failure to properly budget or appropriate funds or to provide sufficient staffing or contractor resources necessary to comply with the terms of this Consent Decree shall not be an excuse for non-compliance.

X. EFFECT OF SETTLEMENT

28. This Consent Decree is neither a permit nor a modification of existing permits under any federal, state, or local law and in no way relieves the City of its responsibilities to comply with all applicable federal, state and local laws and regulations. Compliance with this Consent Decree, including the payment of all monetary sums due under this Consent Decree and the completion of all obligations required pursuant to this Consent Decree resolves FOLKs' civil claims for the violations through the Effective Date alleged against the City in the Amended Complaint filed herein.

29. In consideration of the City's agreement to this Consent Decree and Attachments and in reliance on the Court's entry of this Consent Decree as submitted by the Parties and the Court's Retention of Jurisdiction under Section XIII (Retention of Jurisdiction), FOLKs agrees that (1) all the claims alleged in the Amended Complaint through the Effective Date are dismissed with prejudice and (2) within 14 days of the Effective Date, FOLKs shall withdraw its request for an extension of time to administratively challenge the FDEP Notices of Intent, dated November 18, 2022 (File Numbers: FLA579033-006-DW2P (OGC #22-3000), 0351013-002-UO/5W (OGC #22-3001)); November 21, 2022 (File Numbers: FLA550973-OI I-DW2P (OGC #22-3002), 269177-003-UO/SW (OGC #22-3003); and November 21, 2022 (File Number: FLA642851-

013-SW2P (OGC #22-3004) and shall not file a petition for administrative proceedings with respect to the identified pending permits. FOLKs reserves all rights to bring any claims not dismissed hereunder. The City releases and discharges FOLKs and its representatives, assigns, agents, employees, officers, attorneys and consultants, including those who have held positions in the past, from any and all claims, liability, demands, penalties, costs, and causes of action of any nature which concern or are connected with this action.

XI. FEES AND COSTS

30. Following the Court's entry of this Consent Decree, FOLKs will seek its attorneys' fees and costs of litigation from the Court under Section 505(d) of the Clean Water Act, 33 U.S.C. §1365(d).

XII. EFFECTIVE DATE

31. This Consent Decree becomes effective on the date signed and entered by the Court, following the requisite forty-five (45) day review period by the United States under 33 U.S.C. § 1365(c)(3). FOLKs is responsible for providing a copy of this Consent Decree to the United States Environmental Protection Agency and the United States Department of Justice.

XIII. RETENTION OF JURISDICTION

32. The Court shall retain jurisdiction over this case until Termination of this Consent Decree, for the purpose of resolving disputes arising under this Consent Decree and/or entering orders modifying this Consent Decree, pursuant to Sections IX (Dispute Resolution) and XIV (Modification) or effectuating or enforcing compliance with the terms of this Consent Decree.

XIV. INCORPORATION AND MODIFICATION

33. This Consent Decree and its Attachments contain the entire agreement between the Parties. No material modifications shall be valid unless in writing, mutually agreed to and executed by the Parties, and entered by the Court. Non-material changes to this Consent Decree, including its Attachments, may be made by written agreement of the Parties without Court approval, and such written modifications shall be deemed incorporated into this Consent Decree and fully enforceable by the Court. The Parties may by mutual agreement determine whether a modification is non-material. Any disputes between the Parties will be resolved under the Dispute Resolution Provisions of Section IX (Dispute Resolution), unless the Parties agree otherwise in writing.

XV. TERMINATION

34. Termination of this Consent Decree requires a Court Order under this Section. The City shall initiate termination by transmitting to FOLKs a notice certifying completion of the following requirements (**"Notice of Completion"**): (1) The City has completed all work requirements of this Consent Decree; (2) one year has passed since the commencement of Deep Well Injection required under Paragraph 7; (3) all payments due under Section VII (Stipulated Payments) have been paid in full; and (4) there are no pending disputes between the Parties. The City's Notice of Completion must be certified by the City Manager of the City of Marathon and state as follows:

> *I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering such information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete.*

35. FOLKs will provide a written response to the City's Notice of Completion within 60 days of receipt. If FOLKs' written response states agreement with the Notice of Completion, then the Parties shall file a joint motion for termination within 7 days. If FOLKs' written response states disagreement with the Notice of Completion, then the City must invoke

Dispute Resolution under Section IX of this Consent Decree in order to terminate this Consent Decree.

IT IS SO ORDERED this ____ day of _____, 2024.

_____
JOSE E. MARTINEZ
UNITED STATES DISTRICT JUDGE

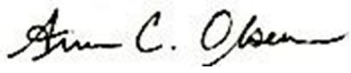
ATTACHMENTS:

ATTACHMENT A: CITY OF MARATHON DEEP INJECTION WELL PROJECT – ALTERNATIVE 1A

ATTACHMENT B: CITY OF MARATHON DEEP INJECTION WELL PROJECT – ALTERNATIVE 1D

WE HEREBY CONSENT to the entry of this Consent Decree:

FOR PLAINTIFF FRIENDS OF THE LOWER KEYS (FOLKs):



11/30/23

/

Ann Olsen, Operating Committee Chair (Date)
Friends of the Lower Keys (FOLKs)

PLAINTIFF'S COUNSEL:

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Attorneys for Plaintiff FOLKs - Friends of the Lower Keys

FOR DEFENDANT CITY OF MARATHON:

[INSERT WHEN FINAL AND READY TO SIGN]

Sponsored by: Garrett

CITY OF MARATHON, FLORIDA
RESOLUTION 2023-60

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF MARATHON, FLORIDA, APPROVING A CONTRACT WITH JUTURNA CONSULTING LLC. IN THE AMOUNT OF (HOURLY RATES) BUT NOT TO EXCEED $207,514.40; AUTHORIZING THE CITY MANAGER TO EXECUTE THE AMENDMENT AND EXPEND BUDGETED FUNDS ON BEHALF OF THE CITY; AND PROVIDING FOR AN EFFECTIVE DATE

WHEREAS, the City of Marathon (the "City") wishes to perform a Wastewater Effluent Disposal Study and put the bid requirements out on DemandStar, and

WHEREAS, Juturna Consulting LLC. was the only responsive and responsible bidder,

NOW, THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF MARATHON, FLORIDA, THAT:

Section 1. The above recitals are true and correct and incorporated herein.

Section 2. The City Council hereby approves award of a contract to Juturna Consulting for an Effluent Disposal Study in the amount of (not to exceed) $207,514.40

Section 3. This resolution shall take effect immediately upon its adoption.

PASSED AND APPROVED BY THE CITY COUNCIL OF THE CITY OF MARATHON, FLORIDA, THIS 27TH DAY OF JUNE, 2023

THE CITY OF MARATHON, FLORIDA

Luis Gonzalez, Mayor

AYES: Landry, Matlock, Smith, Still, Gonzalez
NOES: None
ABSENT: None
ABSTAIN: None

ATTEST:

Diane Clavier, City Clerk

(City Seal)

APPROVED AS TO FORM AND LEGALITY FOR THE USE AND RELIANCE OF THE CITY OF MARATHON, FLORIDA ONLY:

Steve Williams, City Attorney

PROJECT SPECIFIC AGREEMENT

Wastewater Effluent Disposal Options Planning

PROJECT SPECIFIC AGREEMENT
Between
THE CITY OF MARATHON, FLORIDA
And
The Juturna Consulting
For
Wastewater Effluent Disposal Options Planning

This Project Specific Agreement authorizes the CONSULTANT to provide the services as set forth below:

SECTION 1. SCOPE OF SERVICES

1.1 The CONSULTANT shall provide engineering services to the CITY for the Project as described in the "Project Description" included in Exhibit "1."

1.2 The "Scope of Services and Project Schedule" and tasks to be provided by the CONSULTANT for this Project are those services and tasks as included in Exhibit "1".

1.3 The CITY may request changes that would increase, decrease, or otherwise modify the Scope of Services. Such changes must be contained in a written change order executed by the parties with mutual written consent, prior to any deviation from the terms of the Project Agreement, including the initiation of any extra work.

SECTION 2. DELIVERABLES

2.1 As part of the Scope of Services and Project Schedule, the CONSULTANT shall provide to the CITY the following Deliverables as included in Exhibit "2".

SECTION 3. TERM/TIME OF PERFORMANCE/DAMAGE

3.1 **Term.** This Project Agreement shall commence on the date this instrument is fully executed by all parties and shall continue in full force and effect two years, unless otherwise terminated pursuant to Section 6 or other applicable provisions of this Project Agreement. The City Manager, in his sole discretion, may extend the term of this Agreement through written notification to the CONSULTANT. Such extension shall not exceed 180 days. No further extensions of this Agreement shall be effective unless authorized by the CITY Council.

3.2 **Commencement.** The CONSULTANT'S services under this Project Agreement and the time frames applicable to this Project Agreement shall commence upon the date provided in a written Notification of Commencement ("Commencement Date") provided to the CONSULTANT from the CITY. The CONSULTANT shall not incur any expenses or

obligations for payment to third parties prior to the issuance of the Notification of Commencement. CONSULTANT must receive written notice from the City Manager prior to the beginning the performance of services.

3.3 **Contract Time.** Upon receipt of the Notification of Commencement, the CONSULTANT shall commence services to the CITY on the Commencement Date, and shall continuously perform services to the CITY, without interruption, in accordance with the time frames set forth in the "Project Schedule," a copy of which is attached and incorporated into this Agreement as a part of Exhibit "2". The number of calendar days from the Commencement Date, through the date set forth in the Project Schedule for completion of the Project or the date of actual completion of the Project, whichever shall last occur, shall constitute the Contract Time.

SECTION 4. AMOUNT, BASIS AND METHOD OF COMPENSATION

4.1 **Compensation.** CITY AGREES TO PAY CONSULTANT COMPENSATION AT CONSULTANT'S HOURLY RATES AND REIMBURSIBLE EXPENSES, UP TO A MAXIMUM AMOUNT NOT TO EXCEED $207,514.40.

4.2 **Reimbursable Expenses.** The following expenses are reimbursable at their actual cost: travel and accommodations, courier services, mileage (at the GSA rate), photo and reproduction services. All document reproductions are also reimbursable, at a rate approved by the CITY.

SECTION 5. BILLING AND PAYMENTS TO THE CONSULTANT

5.1 **Invoices**

5.1.1 **Hourly Not To Exceed Rate.** CONSULTANT shall submit invoices which are identified by the specific project number on a monthly basis in a timely manner. These invoices shall identify the nature of the work performed, the personnel performing the work, the time worked and the total billing in accordance with the Fee Schedule set forth in Exhibit "3" to this Project Agreement. Invoices will show the total amount billed against this work authorization and shall not exceed the not-to-exceed amount without authorization from the CITY. The CITY shall pay CONSULTANT within thirty (30) calendar days of approval by the City Manager of any invoices submitted by CONSULTANT to the CITY.

5.2 **Disputed Invoices.** In the event that all or a portion of an invoice submitted to the CITY for payment to the CONSULTANT is disputed, or additional backup documentation is required, the CITY shall notify the CONSULTANT within fifteen (15) working days of receipt of the invoice of such objection, modification or additional documentation request. The CONSULTANT shall provide the CITY with additional backup documentation within five (5) working days of the date of the CITY'S notice. The CITY may request additional information,

including but not limited to, all invoices, time records, expense records, accounting records, and payment records of the CONSULTANT. The CITY, at its sole discretion, may pay to the CONSULTANT the undisputed portion of the invoice. The parties shall endeavor to resolve the dispute in a mutually agreeable fashion.

5.3 **Suspension of Payment.** In the event that the CITY becomes credibly informed that any representations of the CONSULTANT, provided pursuant to Subparagraph 5.1, are wholly or partially inaccurate, or in the event that the CONSULTANT is not in compliance with any term or condition of this Project Agreement, the CITY may withhold payment of sums then or in the future otherwise due to the CONSULTANT until the inaccuracy, or other breach of Project Agreement, and the cause thereof, is corrected to the CITY's reasonable satisfaction.

5.4 **Final Payment.** Submission of the CONSULTANT'S invoice for final payment and reimbursement shall constitute the CONSULTANT'S representation to the CITY that, upon receipt from the CITY of the amount invoiced, all obligations of the CONSULTANT to others, including its subconsultants, incurred in connection with the Project, shall be paid in full. The CONSULTANT shall deliver to the CITY all documents requested by the CITY evidencing payments to any and all subcontractors, and all final specifications, plans, or other documents as dictated in the Scope of Services and Deliverable. Acceptance of final payment shall constitute a waiver of any and all claims against the CITY by the CONSULTANT.

SECTION 6. TERMINATION/SUSPENSION

6.1 **For Cause.** This Project Agreement may be terminated by either party upon five (5) calendar days written notice to the other party should the other party fail substantially to perform in accordance with its material terms through no fault of the party initiating the termination. In the event that CONSULTANT abandons this Project Agreement or causes it to be terminated by the CITY, the CONSULTANT shall indemnify the CITY against any loss pertaining to this termination, unless the CONSULTANT is terminating the agreement due to the CITY's failure to provide timely approval and payment of invoices. In the event that the CONSULTANT is terminated by the CITY for cause and it is subsequently determined by a court by a court of competent jurisdiction that such termination was without cause, such termination shall thereupon be deemed a termination for convenience under Section 6.2 of this Project Agreement and the provision of Section 6.2 shall apply.

6.2 **For Convenience.** This Project Agreement may be terminated by the CITY for convenience upon fourteen (14) calendar days' written notice to the CONSULTANT. In the event of termination, the CONSULTANT shall incur no further obligations in connection with the Project and shall, to the extent possible, terminate any outstanding subconsultant obligations. The CONSULTANT shall be compensated for all services performed to the satisfaction of the CITY and for reimbursable expenses incurred prior to the date of termination. The CONSULTANT shall promptly submit its invoice for final payment and reimbursement and the invoice shall comply with the provisions of Paragraph 5.1 of this Project Agreement. Under no circumstances shall the CITY make any payment to the CONSULTANT for services which have not been performed.

6.3 **Assignment upon Termination.** Upon termination of this Project Agreement, a copy of all of the CONSULTANT's work product shall become the property of the CITY and the CONSULTANT shall, within ten (10) working days of receipt of written direction from the CITY, transfer to either the CITY or its authorized designee, a copy of all work product in its possession, including but not limited to designs, specifications, drawings, studies, reports and all other documents and data in the possession of the CONSULTANT pertaining to this Project Agreement. Further, upon the CITY'S request, the CONSULTANT shall assign its rights, title and interest under any subcontractor's agreements to the CITY.

6.4 **Suspension for Convenience**. The CITY shall have the right at any time to direct the CONSULTANT to suspend its performance, or any designated part thereof, for any reason whatsoever or without reason, for a cumulative period of up to thirty (30) calendar days. If any such suspension is directed by the CITY, the CONSULTANT shall immediately comply with same. In the event the CITY directs a suspension of performance as provided for herein through no fault of the CONSULTANT, the CITY shall pay to the CONSULTANT its reasonable costs, actually incurred and paid, of demobilization and remobilization, as full compensation for any such suspension.

SECION 7. COMPLIANCE WITH LAW

7.1 **COMPLIANCE WITH LAWS –** The parties shall comply with all applicable local, state and federal laws and guidelines relating to the services that are subject to this Agreement. Federal regulations apply to all of the City of Marathon contracts using Federal funds as a source for the solicitation of goods and services. The following Federal requirements apply to this Emergency Agreement:

7.2 **ACCESS BY THE GRANTEE, SUBGRANTEE, FEDERAL GRANTOR AGENCY AND COMPTROLLER GENERAL:** The CONSULTANT shall allow access by the grantee, sub grantee, Federal grantor agency and Comptroller General of the United States, or any of their duly authorized representatives to any books, documents, papers, and records of the CONSULTANT which are directly pertinent to that specific contract for the purpose of making audit, examination, excerpts and transcriptions.

7.3 **CLEAN AIR AND WATER ACTS:** The CONSULTANT shall comply with all applicable standards, orders, or requirements issued under Section 306 of the Clean Air Act (42 U.S.C. 1857 (h)), Section 508 of the Clean Water Act (33 U.S.C. 1386), Executive Order 11738, and Environmental Protection Agency regulations (40 CFR Part 15), (Contracts and/or subcontracts, and sub grants of amounts in excess of $100,00.00).

7.4 **CONTRACT WORK HOURS AND SAFETY STANDARDS:** The CONSULTANT shall comply with Sections 103 and 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C. 327-330) as supplemented by Department of Labor regulations (29 CFR Part 5). (Construction contracts awarded by grantees and sub grantees in excess of $2,000, and in excess of $2,500 for other contracts which involve the employment of mechanics or laborers.)

7.5 **COPELAND ANTI-KICKBACK ACT:** The CONSULTANT shall comply with the Copeland Anti-Kickback Act (18 U.S.C. 874) as supplemented in Department of Labor regulations (29 CFR Part 3). (All contracts and sub grants for construction repair).

7.6 **COPYRIGHTS:** The Grantee is free to copyright original work developed in the course of or under the agreement.

7.7 **DISADVANTAGED BUSINESS ENTERPRISES (DBE) CONSULTANTS:** The CONSULTANT agrees to ensure that Disadvantage Business Enterprises as defined in 49 C.F.R. Part 23, as amended, have the maximum opportunity to participate in the performance of contracts and this agreement. In this regard, CONSULTANT shall take all necessary and reasonable steps in accordance with 49 C.F.R. Part 23, as amended, to ensure that the Disadvantaged Business Enterprises have the maximum opportunity to compete for and perform contracts. The CONSULTANT shall not discriminate on the basis of race, color, national origin or sex in the award and performance of federal assisted contracts.

7.8 **ENERGY POLICY AND CONSERVATION ACT:** The CONSULTANT shall comply with mandatory standards and policies relating to energy efficiency which are contained in the state energy conservation plan issued in compliance with the Energy Policy and Conservation Act (Pub. L. 94-163).

7.9 **EQUAL EMPLOYMENT OPPORTUNITY:** The CONSULTANT shall comply with Executive Order 11246 of September 24, 1965, entitled "Equal Employment Opportunity," as amended by Executive Order 11375 of October 13, 1967, and as supplemented in Department of Labor regulations (41 C.F.R. Chapter 60).

7.10 **BYRD ANTI-LOBBYING AMENDMENT (31 U.S.C. 1352)**—CONSULTANTs that apply or bid for an award exceeding $100,000 must file the required certification. Each tier certifies to the tier above that it will not and has not used Federal appropriated funds to pay any person or organization for influencing or attempting to influence an officer or employee of any agency, a member of Congress, officer or employee of Congress, or an employee of a member of Congress in connection with obtaining any Federal contract, grant or any other award covered by 31 U.S.C. 1352. Each tier must also disclose any lobbying with non-Federal funds that takes place in connection with obtaining any Federal award. Such disclosures are forwarded from tier to tier up to the non-Federal award.

PURSUANT TO F.S. 558.0035, AN INDIVIDUAL EMPLOYEE OR AGENT MAY NOT BE HELD INDIVIDUALLY LIABLE FOR ANY NEGLIGENCE.

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SECTION 8 Term/Time of Performance

8.1 This Project Specific Agreement shall be effective on the date it is fully executed by all parties and shall continue in full force for 2 year(s) or until completion of the Project, unless otherwise terminated pursuant to this Agreement. The City Engineer or Manager, in his sole discretion, may extend the term of this Project Specific Agreement through written notification to the CONSULTANT. Such extension shall not exceed 180 days. No further extensions of this Project Specific Agreement shall be effective unless authorized by the City Engineer or Manager.

8.2 The CONSULTANT's services under this Project Specific Agreement and the time frames applicable to this Project Specific Agreement shall commence upon the date provided in a written Notification of Commencement ("Commencement Date") provided to the CONSULTANT from the CITY. The CONSULTANT shall not incur any expenses or obligations for payment to third parties prior to the issuance of the Notification of Commencement. CONSULTANT must receive written notice from the CITY prior to the beginning the performance of services.

8.3 Upon receipt of the Notification of Commencement, the CONSULTANT shall commence services to the CITY on the Commencement Date, and shall continuously perform services to the CITY, without interruption, in accordance with the time frames set forth in the Project Schedule."

SECTION 9 Project Records

9.1 All final plans, documents, reports, studies and other data prepared by the CONSULTANT or a subconsultant will bear the endorsement of a person in the full employ of the CONSULTANT or the subconsultant and duly registered in the appropriate professional category.

9.2 After the CITY's acceptance of final plans and documents, an electronic copy of the CONSULTANT's or the sub consultant's final drawings, tracings, plans and maps will be provided to the CITY at no additional cost to the CITY.

9.3 Upon completion of any construction by a contractor on a project assigned to CONSULTANT, the CONSULTANT shall furnish acceptable field verified "record drawings" of the work on full sized prints (and/or electronic data file if requested by the CITY). The CONSULTANT shall signify, by affixing an appropriate endorsement on every sheet of the record sets that the work shown on the endorsed sheets was reviewed by the CONSULTANT.

9.4 The CONSULTANT shall not be liable for use by the CITY of said plans, documents, studies or other data for any purpose other than stated in the applicable Project Specific Agreement.

9.5 All tracings, documents, data, deliverables, records, plans, specifications, maps, surveys, field survey notes, and/or reports prepared or obtained under this Agreement shall be considered works made for hire and shall become the property of CITY, and reproducible copies shall be made available upon request to the CITY.

9.6 All project records shall be maintained by CONSULTANT and made available upon request of the CITY.

9.7 CITY at all times for the duration of this Agreement and during the period stated by Florida Records Retention Schedules. During this time period the City Manager or designee have access to and the right to examine and audit any records of the CONSULTANT involving transactions related to this Agreement, including its financial records. The CITY may cancel this Agreement for refusal by the CONSULTANT to allow access by the City Manager or designee to any records pertaining to work performed under this Agreement.

SECTION 10 Ownership and Access to Public Records.

10.1 All records, books, documents, maps, data, deliverables, papers and financial information (the "Records") that result from the CONSULTANT providing services to the CITY under this Agreement shall be the property of the CITY.

10.2 The CONSULTANT is a "Contractor" as defined by Section 119.0701(1)(a), Florida Statutes, and shall comply with the public records provisions of Chapter 119, Florida Statutes, including the following:

1. Keep and maintain public records required by the CITY to perform the service.
2. Upon request from the City Clerk, provide the CITY with a copy of the requested records or allow the records to be inspected or copied within a reasonable time at a cost that does not exceed the cost provided in Chapter 119, Florida Statutes or as otherwise provided by law.
3. Ensure that public records that are exempt or confidential and exempt from public records disclosure requirements are not disclosed except as authorized by law for the duration of the contract term and following completion of the contract if the CONSULTANT does not transfer the records to the CITY.
4. Upon completion of the contract, transfer, at no cost, to the CITY all public records in possession of the CONSULTANT or keep and maintain public records required by the CITY to perform the service. If the CONSULTANT transfers all public records to the CITY upon completion of the contract, the CONSULTANT shall destroy any duplicate public records that are exempt or confidential and exempt from public records disclosure requirements. If the CONSULTANT keeps and maintains public records upon completion of the contract, the CONSULTANT shall meet all applicable requirements for retaining public records. All records

stored electronically must be provided to the CITY, upon request from the City Clerk, in a format that is compatible with the information technology systems of the CITY.

10.3 "Public Records" is defined in Section 119.011(12), Florida Statutes, and includes all documents, papers, letters, photographs, data processing software, or other material, regardless of physical form, made or received in connection with this Agreement.

10.4 Should the CONSULTANT assert any exemption to the requirements of Chapter 119 and related law, the burden of establishing such exemption, by way of injunctive or other relief as provided by law, shall be upon the CONSULTANT.

10.5 The CONSULTANT consents to the CITY's enforcement of the CONSULTANT's Chapter 119 requirements by all legal means, including, but not limited to, a mandatory injunction, whereupon the CONSULTANT shall pay all court costs and reasonable attorney's fees incurred by the CITY.

10.6 The CONSULTANT's failure to provide public records within a reasonable time may be subject to penalties under Section 119.10, Florida Statutes. Further, such failure by the CONSULTANT shall be grounds for immediate unilateral cancellation of this Agreement by the CITY.

10.7 **IF THE CONTRACTOR HAS QUESTIONS REGARDING THE APPLICATION OF CHAPTER 119, FLORIDA STATUTES, TO THE CONTRACTOR'S DUTY TO PROVIDE PUBLIC RECORDS RELATING TO THIS CONTRACT, CONTACT THE CUSTODIAN OF PUBLIC RECORDS AT 305-743-0033, CITYCLERK@CI.MARATHON.FL.US, OR 9805 OVERSEAS HIGHWAY, MARATHON FLORIDA 33050.**

SECTION 11 E-VERIFY

11.1 **E-Verify System** - Beginning January 1, 2021, in accordance with F.S. 448.095, the CONSULTANT and any subcontractor shall register with and shall utilize the U.S. Department of Homeland Security's E-Verify system to verify the work authorization status of all new employees hired by the CONSULTANT during the term of the Contract and shall expressly require any subcontractors performing work or providing services pursuant to the Contract to likewise utilize the U.S. Department of Homeland Security's E-Verify system to verify the work authorization status of all new employees hired by the subcontractor during the Contract term. Any subcontractor shall provide an affidavit stating that the subcontractor does not employ, contract with, or subcontract with an unauthorized alien. The CONSULTANT shall comply with and be subject to the provisions of F.S. 448.095

PAYMENT UNDER THIS PROJECT SPECIFIC AGREEMENT SHALL ONLY BE MADE FROM APPROPRIATIONS BUDGETED ON AN ANNUAL BASIS.

IN WITNESS WHEREOF, the parties have executed this instrument on this 30th day of June, 2023.

CONSULTANT:

By: Suzanne Olson

Its: Owner

CITY:

By: George Garrett

Its: City Manager

ATTEST:

for Diane Clavier, City Clerk Hillary Palmer Deputy Clerk

APPROVED AS TO FORM AND LEGAL SUFFICIENCY FOR THE USE AND RELIANCE OF THE CITY OF MARATHON, FLORIDA ONLY:

City Attorney

This agreement shall be executed on behalf of CONSULTANT by its President or a Vice President. If executed by a person other than CONSULTANT's President or a Vice President, then attach evidence of that person's actual authority to bind CONSULTANT to this agreement.

EXHIBIT "1"
PROJECT DESCRIPTION

Juturna Consulting will prepare a study evaluating options for disposal of the AWT effluent from its five WWTPs. The study shall include, at a minimum, an evaluation of the options listed it its Scope of Work as presented in Exhibit "2" and as further detailed in the FOLKS v. City of Marathon *Stipulated Interim Injunctive Relief and Stay of Litigation.*

EXHIBIT "2"

SCOPE OF SERVICES AND ANTICIPATED PROJECT SCHEDULE

SCOPE OF SERVICES
For
CITY OF MARATHON
WASTEWATER EFFLUENT DISPOSAL OPTIONS PLANNING

BACKGROUND AND OBJECTIVES

The City of Marathon operates 5 Wastewater Plants that treat domestic wastewater to Advanced Wastewater Treatment levels (AWT) with effluent disposal to shallow injection wells. Juturna Consulting, LLC (Prime Consultant) with Verdantas, Inc. and ASRus (Subconsultants), collectively referred to herewith as Firm, is to perform an analysis of options for disposal of domestic wastewater effluent that has been treated to Advanced Wastewater Treatment (AWT) levels and including high-level disinfection. The primary objective is to evaluate the disposal of treated effluent from the City's five (5) wastewater treatment facilities one, or a combination of, the following wastewater effluent disposal options:

- A single deep injection well.
- Conventional reuse of the treated effluent.
- Direct Potable Reuse of the treated effluent (reverse osmosis).
- Indirect Potable Reuse of the treated effluent (reverse osmosis)

A "Do Nothing" alternative shall not be included in the evaluation.

SCOPE OF SERVICES

This analysis will evaluate wastewater disposal effluent options for the City to eliminate the current shallow injections wells. The options will include estimates of:

- capital costs including design, permitting and construction administration.
- annual operation and maintenance costs.
- long-term repair and replacement costs.
- Potential environmental impact of options

TASK 1 - PROJECT MANAGEMENT, MEETINGS, AND DATA COLLECTION

1.1 ***Contract Execution*** – Firm will complete a scope and fee estimate, obtain necessary insurance, negotiate subconsultant agreements and execute the Agreement with the City.

1.2 ***Project Management*** – Firm will provide monthly invoicing and progress reports, and coordinate staff and subconsultant availability to meet the project schedule requirements.

1.3 ***Project Closeout*** – Firm will submit a final invoice and complete any City required closeout activities.

Task 1 Deliverables:

- Executed Contract
- Monthly progress reports and monthly and final invoices.

TASK 2 - MEETINGS AND DATA COLLECTION

2.1 ***Kick-off Meeting*** – Firm will prepare for and conduct a kickoff meeting with City staff to establish the plan to complete the Wastewater Effluent Disposal Options Planning, and request data from the City. Consultant will review the project purpose, timeframe for completion, and confirm which members of the City staff will be involved in the project decision making process, and which external stakeholders should be included. This meeting will be an in person meeting and will include travel costs for up to four (4) Firm staff with one night of lodging. Firm will prepare and submit kickoff-meeting notes.

2.2 ***Data Collection*** – Firm will prepare a list of data items required from the City for the project.

2.3 ***Stakeholder Outreach*** – Firm will interview up to ten (10) external stakeholders to discuss the conceptual alternatives. When possible these meetings will be held electronically. Travel costs will be included for up to six (6) staff trips and up to six(6) overnight lodgings. Stakeholders will include:

- Florida Keys National Marine Sanctuary
- Florida Keys Aquaduct Authority (FKAA)
- Florida Department of Environmental Protection
- South Florida Water Management District
- Florida Department of Transportation
- Friends of the Lower Keys (FOLKs)
- Monroe County
- Potential bulk reclaimed users

2.4 ***Meetings*** – In addition to the kickoff meeting, Firm will conduct four (4) meetings with City staff. Unless otherwise noted, these meetings will be held electronically. The meetings will have the following topics:

Meeting 1 – Conceptual Alternatives Review Meeting (Task 3)

- Firm will present a draft list of up to eight (8) conceptual alternatives. The City will confirm which alternatives they would like included in the Analysis and give feedback on modifications to the alternatives to incorporate in this Project.

Meeting 2 – Alternative Evaluation Criteria, Weighting, and Ranking Methodology Meeting (Task 4)

- Firm will meet with the City to present the draft criteria and weighting that will be used to evaluate and rank the alternatives. These will include cost and non-cost criteria. Firm will provide the modified criteria, weighting, and ranking process for the Project one week after the meeting. This meeting will be an in person meeting with City staff prior to a presentation to the City Council, and will include travel costs for up to four (4) Firm staff with 2 nights lodging.

Meeting 3 – Alternatives Analysis Review Meeting (Task 5)

- Firm will meet with the City to review a preliminary summary of the Alternatives Analysis.

Meeting 4 - Draft Report Review Meeting (Task 6)

- Firm will meet with the City to review the draft report.

Meeting 5 – Presentation of the Final Report (Task 6)

- Firm will present the final results to the City Council. This meeting will be an in person meeting and will include travel costs for up to two (2) Firm staff with one night of lodging.

Task 2 Deliverables:

- Agenda prior to the kickoff meeting, and a meeting summary within one week after each meeting.
- Data request for the Kick-off meeting.
- Summaries of stakeholder outreach activities

TASK 3 – CONCEPTUAL ALTERNATIVES

Firm will compile and prepare a list of up to eight (8) conceptual alternatives. Each conceptual alternative will include a map, list of pros and cons, and preliminary estimates of the quantities of treated effluent available for beneficial reuse and/or potable water offset.

Task 3 Deliverables:

- A list of alternatives for discussion in Meeting 1.

TASK 4 – EVALUATION CRITERIA

Firm will compile and prepare a list of evaluation criteria, including cost and non-cost criteria. Cost criteria will include life cycle costs (capital and present value operating costs) for additional treatment and conveyance, and deferred or avoided costs for potable water offset. Non-cost criteria may include quantity of potable water offset, increased supply reliability during water shortages, permittability, reduced environmental impact of existing wastewater discharge, increased staffing requirements for City staff for operation, maintenance, monitoring or reporting, risk to general public such as traffic impacts during construction, etc.

Task 4 Deliverables:

- Consultant will provide a list of evaluation criteria and proposed weighting for discussion in Meeting 2.

TASK 5 – ALTERNATIVES ANALYSIS

Consultant will evaluate up to six (6) alternatives using the criteria and weighting developed for this Project. Spreadsheet models will be used to estimate the costs and benefits that each alternative would provide. Conceptual 30-year life cycle costs, including capital and operating costs, will be developed for each alternative.

Task 5 Deliverables:

- A summary of the Alternatives Analysis for discussion in Meeting 3.

TASK 6 – REPORT

Consultant will compile and prepare a draft report of the alternatives evaluated, the evaluation criteria, and the evaluation results.

Task 6 Deliverables:

- Draft report for City review prior to Meeting 4.
- Final report after incorporating City comments.

CITY'S RESPONSIBILITY

The following shall be provided by the City, if available:

1. Reasonable access to operations, maintenance, and engineering staff.
2. Copy of previous beneficial reuse projects' estimates and evaluations.
3. Water quality and quantity data.
4. Copies of additional available record drawings, as needed, in electronic format for potable water, wastewater and storm water systems, City owned right-of-way and fee properties.
5. Copies of additional available operating reports and maintenance records.
6. Available capital and operating cost information for the existing system.
7. Geographic Information System (GIS) data for pipelines and historical usage for parcels served by water, sewer and reclaimed water.

ADDITIONAL SERVICES

Any work requested by the City that is not included in one of the items listed in this scope of services will be classified as additional services requiring additional funding and task authorization in the project budget or negotiation of a separate authorization. Additional services could include, but are not limited to:

- Water Quality Sampling
- Water Quantity Sampling
- Additional presentations to City Council
- Additional public meetings with external stakeholders
- Revisions to Final Report after review by FOLKS (if requested by the City)

SCHEDULE

The anticipated project completion schedule described below will be in effect after Notice to Proceed and requires significant coordination with City staff for achievement within the timeframe. This schedule, as shown below is 23 weeks. The following schedule is estimated for the tasks set forth in this scope of services.

Task	Completion Date
Task 1 – Project Management	June - November 2023
Task 2 – Meetings and Data Collection	
Kickoff Meeting	July 6, 2023
Meeting 1 – Conceptual Alternatives	July 28, 2023
Meeting 2 – Evaluation Criteria	August 17, 2023
Meeting 3 – Alternatives Analysis	September 14, 2023
Meeting 4 – Draft Report Review	Early November
Task 3 – Conceptual Alternatives	July 21, 2023
Task 4 – Evaluation Criteria	August 15, 2023
Task 5 – Alternatives Analysis	September 12, 2023
Task 6 – Report	
Draft Report	October 26, 2023
Final Report	November 15, 2023

BUDGET

A budget breakdown is provided by task in the table below. Work performed under this project shall be paid for on Time and Materials basis and billed monthly. Applicable GSA rates for mileage, per diem and lodging flights and rental cars, will be used for travel cost estimates.

Task	Amount
Task 1 – Project Management	$8,075.00
Task 2 – Meetings and Data Collection	$99,068.40
Task 3 – Conceptual Alternatives	$17,844.00
Task 4 – Evaluation Criteria	$13,587.00
Task 5 – Alternatives Analysis	$35,436.00
Task 6 – Report	$33,504.00
Total	**$207,514.40**

EXHIBIT "3"
CONSULTANT'S HOURLY RATES

City of Marathon Effluent Disposal Options Evaluation Hourly Rates

Staff Name	Position	Rate
	Juturna Consulting	
Suzannah Folsom	Owner	$ 200.00
Jon Kennedy	Senior Engineering Manager	$ 160.00
Pamela London-Exner	Senior Water Quality Scientist	$ 140.00
Ryan Martin	Senior professional Engineer	$ 140.00
Anne Saylor	Staff Engineer	$ 110.00
Brian Norman	Staff Engineer	$ 110.00
Faith Hauhe	Student Intern	$ 50.00
	Verdantas	
Steven Folsom	Regional Vice President	$ 265.00
Jim Dozier	Senior Professional Geologist	$ 173.00
Nigel Lewis	Civil Engineer	$ 158.00
Ken Badgley	GIS Technician	$ 114.00
	ARSus	
Mark McNeal	Owner	$ 210.00
Joe Haberfeld	Senior Professional Geologist	$ 180.00
Pete Larkin	Senior Professional Geologist	$ 180.00
Marty Clasen	Senior Professional Geologist	$ 180.00

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UNITED STATES DISTRICT COURT FOR THE
SOUTHERN DISTRICT OF FLORIDA
KEY WEST DIVISION

Case Number: 22-10002-CIV-MARTINEZ-BECERRA

FOLKS – FRIENDS OF THE LOWER KEYS, LLC,

Plaintiff,

v.

CITY OF MARATHON, FLORIDA,

Defendant.
_____/

ORDER ON THE JOINT MOTION FOR STAY AND EXTENSION OF TRIAL AND EXTENDING CERTAIN PRETRIAL DEADLINES AND CONTINUING TRIAL

THIS CAUSE came before this Court on the Joint Motion for Stay and Extension of Trial Schedule Deadlines and Continuance of Trial Date (the "Motion"), (ECF No. 33). This Court has reviewed the Motion, pertinent portions of the record, and applicable law and is otherwise fully advised of the premises. The Parties agree that this action should be stayed pending the conclusion of Defendant's "comprehensive study of potential changes to [Defendant's] sewage infrastructure system (the "Feasibility Study"), which will be complete by November 15, 2023." (*Id.* ¶ 2.) After carefully considering the circumstances set forth in the Motion, this Court finds good cause to stay this action until Monday, January 8, 2024; extend the pretrial deadlines; and continue trial. Accordingly, it is **ORDERED AND ADJUDGED** that:

1. The Motion, (ECF No. 33), is **GRANTED IN PART** as set forth herein.

2. This action is **STAYED** until **Monday, January 8, 2024**. The Clerk is **DIRECTED** to automatically **LIFT** the stay on that date.

3. The Clerk is **DIRECTED** to **ADMINISTRATIVELY CLOSE** this action for

statistical purposes only. This shall not affect the Parties' substantive rights.

4. The previous Calendar Call and Trial Period are **CANCELLED**. Trial is **RESCHEDULED** to commence during the two-week period beginning **Monday, July 22, 2024, at 9:30 a.m.**, before Jose E. Martinez, United States District Judge, 301 Simonton Street, Courtroom 1, Key West, Florida. Calendar Call will be held on **Thursday, July 18, 2024, at 1:30 p.m.**, at 400 N. Miami Avenue, Courtroom 10-1, Miami, Florida 33128. All counsel may appear by telephone at Calendar Call. If appearing by phone, a few minutes before 1:30 p.m., counsel shall call the toll-free number, 1-888-684-8852; and:

a. Enter Access Code Number 7677597 followed by the # sign;

b. Enter Security Code Number 5590 followed by the # sign; and

c. State your name, the name of the party you represent, and enter the Conference.

5. Accordingly, the pretrial deadlines are modified as follows:

1-8-2024	Mediation shall be completed.
1-22-2024	Parties shall exchange expert witness summaries and reports.
2-12-2024	Parties shall exchange written lists containing the names and addresses of all witnesses intended to be called at trial and only those witnesses listed shall be permitted to testify.
3-1-2024	Parties exchange rebuttal expert witness summaries and reports.
3-29-2024	All discovery, including expert discovery, shall be completed.
4-29-2024	All *Daubert*, summary judgment, and other dispositive motions must be filed. Each party is limited to filing a single *Daubert* motion of no more than 20 pages. Summary judgment motions, in addition to containing a Statement of Material Facts pursuant to Local Rule 56.1(a), shall be accompanied by a separately-filed Joint Statement of Undisputed Fact, which must include all relevant facts about which there is no material dispute. Each undisputed fact shall be individually numbered and separated by paragraphs. This filing is limited to 10 pages and does not

	otherwise change the parties' obligation to comply with Local Rule 56.1. Note: If there are any unresolved discovery disputes pending fifteen days prior to this date, the moving party shall immediately advise the Court of all such unresolved disputes together with their status.
6-7-2024	All pretrial motions and memoranda of law must be filed. Each party is limited to filing a single motion *in limine*, which may not, without leave of Court, exceed the 20-page limit allowed by the Rules.
6-21-2024	Joint Pretrial Stipulation must be filed.
7-15-2024	Proposed jury instructions and/or proposed findings of fact and conclusions of law must be filed.
7-17-2024	Proposed *voir dire* questions must be filed.

6. Neither Party may serve any discovery nor file any dispositive motions in this action **until and including Monday, January 8, 2024**, without first moving for this Court's leave. At any time before Monday, January 8, 2024, Plaintiff may move to lift the stay if Defendant fails to comply with the Feasibility Study, as described in and attached to the Motion, (Mot. ¶ 2; Term Sheet, ECF No. 33-1 at 2).

7. All remaining deadlines and provisions set forth in the Scheduling Order, (ECF No. 16), remain in effect. **No extensions of the deadlines set forth herein will be granted absent exigent circumstances.**

DONE AND ORDERED in Chambers at Miami, Florida, this 21 day of February, 2023.

JOSE E. MARTINEZ
UNITED STATES DISTRICT JUDGE

Copies provided to:
Magistrate Judge Becerra
All Counsel of Record

EXHIBIT A

Stipulated *Interim* Injunctive Relief and Stay of Litigation

I. Feasibility Study to be Performed by the City

a. The Feasibility Study will evaluate at minimum the alternatives listed below. For each alternative, the Feasibility Study must include the costs, the funding or financing opportunities or prospects, and any revenue that could be seen by the City from each option.

1. Deep Well Injection of all of the City's treated wastewater	This alternative would implement the original plan for the Marathon area as contained in the 2000 Monroe County Sanitary Wastewater Master Plan which the City's prior leadership abandoned in 2005 in favor of the existing, less costly system Under this alternative, each of the City's five treatment plants would transmit their sewage effluent to a single deep injection well through a force main system. The City already is connecting its treatment plants together, such as the Area 3-4 Force Main Project. This alternative should explore the feasibility of injection into the Boulder zone and may also explore the feasibility of injection into an intermediate depth. The shallow wells would be available for disposal of advanced wastewater treated effluent only as an emergency or maintenance backup when the deep well is not operational, under applicable law.

2. Conventional Reuse	This alternative analysis must include (1) adding at least Reverse Osmosis technology to the City's existing advanced wastewater treatment process (whether at each plant or at a central location) adequate to treat the water to re-use standards, (2) disposal alternatives for the Reverse Osmosis reject stream, (3) adding reuse customers to the existing system, and (4) storage capacity (tanks) for when supply exceeds demand (rainy season). The Reuse Feasibility Study may consider and update the City's prior Reuse Feasibility Studies. The shallow wells would be available for disposal of advanced wastewater treated effluent only as an emergency backup measure when re-use storage is full under the same terms as the requirements for back up wells for deep wells.

3. Potable Water Reuse	This alternative must include adding at least Reverse Osmosis technology to the City's existing advanced wastewater treatment process (whether at each plant or at a central location) adequate to treat to drinking water standards and analysis of disposal alternatives for the Reverse Osmosis reject stream. There are alternatives within this alternative, including: 1. Whether the City can provide potable reuse directly to the City or whether to transmit it to FKAA, and if FKAA is an option, full exploration with FKAA as to whether they will accept the potable water provided by the City of Marathon. 2. Whether storage capacity is needed and if not, why not; and the appropriate storage capacity (tanks) for when supply exceeds demand (rainy season). The shallow wells would be available for disposal of advanced wastewater treated effluent only as an emergency backup measure when re-use storage is full, under the same terms as the requirements for back up wells for deep wells.
4. Combined Potable and Conventional Reuse	Because Reverse Osmosis is required for either potable water or conventional reuse, this alternative maximizes the City's reuse potential, which reduces the demand on the aquifer that supplies drinking water to the Keys, provides a potential revenue stream to the City from potable reuse customers, and possibly results in zero discharge to the shallow wells.

5. Combination of any of the above Alternatives	Any combination of the four alternatives above (e.g., deep well injection for Areas 3-4-5 and potable water and/or conventional reuse at Areas 6 and 7).

The Feasibility Study shall not include a "no action alternative" (i.e., the continued use of the shallow wells as the only or primary disposal method for its treated wastewater), nor an alternative that eliminates existing advanced wastewater treatment at any of the City's plants.

b. The Feasibility Study must be performed by an engineering firm to be agreed between the Parties **by June 20, 2023**. Weiler Engineering and/or any of its employees may not do the study, nor may any other engineering firm which regularly conducts business with the City. The City shall adhere to the below milestones, consistent with applicable procurement regulations and best practices in the sanitary sewer industry for the above scope of work:

   i. By **January 31, 2023**: The City shall acquire and authorize an engineer for development of Delegation of Procurement ("DPR") Planning Request for Proposal ("RFP") with a deadline sufficient to meet the below milestone.

   ii. By **March 1, 2023**: The City shall complete development of the DPR Planning RFP and advertise same on Demand Star with a **May 1, 2023** deadline for bid submissions. The City shall provide FOLKS with a copy of the DPR Planning RFP and all bids received.

   iii. By **June 14, 2023**: The City shall inform FOLKS of its selection of the engineering firm.

c. The Feasibility Study must be complete and delivered to FOLKs by **November 15, 2023,** including the City's selection of an alternative evaluated in the Feasibility Study as the permanent remedy that the City will accept to resolve the lawsuit.

d. The City will keep FOLKS informed of the progress of the Feasibility Study by the first of every month until November 1, 2023.

e. FOLKs will accept or reject the City's alternative by **December 15, 2023**.

II. Final Remedy Selection

a. If FOLKs agrees to the City's selected alternative, then:

i. The Parties will enter into a Consent Decree to be lodged **within thirty days after the Parties agree to an alternative,** unless the Parties mutually agree to an extension of time. The Consent Decree will:

1. Commit the City to the agreed selected alternative under a schedule for completion that is mutually agreeable to both Parties;

2. Not include a civil penalty payment provision; and

3. Release the City for FOLKs' claims for injunctive relief and civil penalties alleged in the Complaint through the date of the Court's entry of the Consent Decree.

ii. Following the Court's entry of the Consent Decree, FOLKs will seek its attorneys' fees and costs of litigation from the Court under the statute.

If FOLKs does not agree to the City's selected alternative, the Parties will engage in mediation, commencing **January 8, 2024**. If mediation results in an impasse, then the stay will be immediately terminated and the Parties will proceed with pending litigation

City of Marathon
City Council Action Minutes
August 11, 2026 5:30 pm City Council Meeting Minutes

CALL TO ORDER – A City Council Meeting of the City of Marathon, Florida was held on August 11, 2026, in the Marathon Council Chambers, 9805 Overseas Hwy., Marathon, Florida, Mayor Lynny Del Gaizo called the meeting to order at 5:35 pm.

PLEDGE OF ALLEGIANCE

The Pledge of Allegiance was recited.

ROLL CALL - There were present:

Councilmember Landry

Councilmember Matlock

Councilmember Still

Vice Mayor Struyf

Mayor Del Gaizo, comprising a quorum.

Also, in attendance were:

City Attorney/Interim City Manager, Steve Williams

City Clerk, Diane Clavier

Finance Director, Jennifer Johnson

Planning Director, Brian Shea

Senior Planner, Dan Gilizio

Building Official, Gerard Roussin

Deputy City Manager, Brian Bradley

HR Director, Evie Engelmeyer

It Director, Henry Kokenzie

Code Director, Ted Lozier

City Engineer, Carlos Solis

Public Works Director, Paul Bartnik

Parks Director, Scott Williamson

Deputy Utilities Director, Libby Soldano

MCSO Capt. Derek Paul

Approval Of Agenda and Consent Agenda

MOTION: Still moved to approve the agenda
SECOND: Matlock

With no objection from the members of the Council, Mayor DelGaizo declared the agenda approved as amended.

City Council Items

***A.** Approval of Minutes
*** B.** Non-Profit Grant Awards
C. Fair Insurance Rates for Monroe (FAIR) (Mayor Del Gaizo) – Mel Montagne, President of FIRM gave an update on the challenges of insurance rate increases informing everyone of FIRM 's recent accomplishments. Montagne reported that Citizens' 2026 rates will include a 5.7% decrease for Monroe County wind-only homeowners policies and a 6.3% decrease for wind-only condo policies. Montagne asked the city to fix roof-permit language that is causing Citizens to not renew policies when roof documentation doesn't meet its standards. Citizens requires proof of full roof replacement, but some Marathon permits don't clearly reflect the work performed. He urged clearer, consistent permit language. Montagne informed everyone there would be an August 25th town hall meeting in Marathon at the Monroe County Government center with a community forum from 1:30 to 4 p.m.

D. City Manager Discussion (Councilmember Landry) – the Council backed Steve Williams after a months-long search, saying he had grown into the role despite not seeking it. Landry explained that this leaves the city with another problem that Williams couldn't permanently serve as both city manager and attorney. Still asked that the City move forward, we need to come together as a council and not be indecisive. Williams said he would ask Assistant City Attorney Alli Heller if she'd consider taking over his legal duties, as she is very competent and added that the city could again use the Vernis & Bowling firm to review the contract as well.

The Mayor called for speakers.

Wendy Bonilla asked questions relating to the salary of the Attorney and City Manager.

Armand Messina – commented that the reason we became a city is to clean up the building department. Attorneys look at things in black and white, and we need this.

Bettye Chaplin – commented that she had been listening to all of the concerns and the Council is the common denominator. There are a lot of reasons we incorporated, and we need someone to fight for us, we are on the right track.

The Council asked that Williams bring forward a contract at the September 8th meeting and have either the outside law firm or Heller review it. Still commented that there would be negotiations and we will have a contract that is in the City's best interest.

City Manager Report

* **A.** MCSO Marathon Substation Report
* **B**. Grants Report
* **C.** Public Works Report
* **D.** Park and Recreation Report
* **E.** Engineering Report
* **F.** Marina Report
* **G**. Code Report
* **H.** Wastewater Utilities Report
* **I.** Building Report
* **J.** Marathon Fire Rescue Report
* **K**. Florida Commerce ACSC Administration Permit Contact Line (Informational)

L. Deep Well Update – Traffic/Funding – Steve Suggs with APEX provided a PowerPoint and explained the City of Marathon is implementing a regional deep injection well system to replace shallow-well effluent disposal, as required by a federal Consent Decree following the Maui Supreme Court decision. The project spans five phases, is currently in mixed stages of construction and design, and carries a total program cost of about $70 million. Deep-well disposal must begin by December 31, 2028. Suggs also provided the construction status by phases and explained the facilities plan amendment which updates the original plan with refined engineering, permitting and updated cost details. Suggs explained that the funding sources included state appropriations, water quality restoration funding, SRF (State Revolving Fund) low-cost loan and a temporary line of credit.

Citizens' comments:

Diego Cordova – explained his concerns about the lack of parking at the Harbor Drive boat ramp.

John Callion – asked the Council to restore the parking at the boat ramp at Harbor Drive.

Diane Scott – commented that the City should have their own Sherriff's office.

Bettye Chaplin – expressed her concerns regarding the FDOT approved deceleration lane by Vacca Cut bridge, she felt it was dangerous and was prepared to go to the Governor about it.

Ordinances For First Public Hearing:

A. Ordinance 2026-23, Modifying Section 32-2 Of The City Code Of Ordinances, 'Regulation Of Wrecker Operators Who Provide Towing And Storage Services At The Request Of Law Enforcement Officers; Providing For Incorporation Into The Code Of Ordinances; And Providing For An Effective Date.

Struyf abstained and left the dais.

Shea explained the small changes to the ordinance; removing the additional inspections, fees, and notifications, and adopts the standards set forth in Florida Statutes. The ordinance still maintains stricter standards to ensure that towed vehicles are still stored at sites within the City of Marathon.

Clavier informed everyone that no one was signed up to speak.

MOTION: Matlock moved to approve Ordinance 2026-23
SECOND: Still

Vote of the Motion:
Yes: Matlock, Still, Landry, Del Gaizo
No: None
Absent: None
Abstain: Struyf
Vote on the Motion: 4 Yes, 0 No, 0 Absent, 1 Abstain

Ordinance 2026-24, Amending Chapter 15 Fire Prevention, Article 1 "In General", Amending Section 15-6 Entitled "Chickees And Tikis," Amending Section 15-7 Entitled "Penalty," Amending Sections 15-8 Through 15-26 Entitled "Reserved;" Of The City Of Marathon Code Of Ordinances; Providing For Severability; Providing For The Repeal Of Conflicting Provisions; And Providing For An Effective Date.

Shea explained the proposed ordinance amends the Fire Prevention code in the code of ordinances to adopt language consistent with House Bill 929 as adopted into Chapter 2026-55 of the laws of Florida. The purpose of the amendment is to codify consistent language for tikis and chickees based upon the amendments to State law.

Clavier informed everyone that no one was signed up to speak.

MOTION: Matlock moved to approve Ordinance 2026-24
SECOND: Still

Vote of the Motion:
Yes: Matlock, Still, Landry, Struyf, Del Gaizo
No: None
Absent: None
Abstain: None
Vote on the Motion: 5 Yes, 0 No, 0 Absent, 0 Abstain

Resolutions For Adoption

***A. Resolution 2026-70,** Authorizing A "Sole-Source" Purchase Pursuant To The City's Purchasing Policies And Procedures And Approving The Purchase From Airvac For Spare Vacuum

Collection System Packages, In An Amount Not To Exceed $147,909.60; Authorizing The City Manager To Enter Into Agreements In Connection Therewith, Appropriating And Expending Budgeted Funds; And Providing For An Effective Date

***B. Resolution 2026-71,** Approving A Distribution Right-Of-Way Easement Between The City of Marathon And The Florida Keys Electric Cooperative On Property Having Real Estate Number 00103350-000400, On Property Known As Community Park, Providing For Severability, Providing For An Effective Date

C. Resolution 2026-72, Impose And Provide For Collection Of Wastewater Special Assessments For Service Areas 1, 3, 4, 5, 6 And 7 (Including The Supplemental Assessment Program) For Fiscal Year Commencing October 1, 2026; Approving The Assessment Roll; Providing For Collection Of The Assessments; And Providing For An Effective Date.

Williams explained the resolution conditions of the City's assessment programs for the construction of wastewater collection and treatment facilities.

Clavier informed everyone that no one was signed up to speak.

MOTION: Still moved to approve Resolution 2026-72
SECOND: Landry

Vote of the Motion:
Yes: Still, Landry, Matlock, Struyf, Del Gaizo
No: None
Absent: None
Abstain: None
Vote on the Motion: 5 Yes, 0 No, 0 Absent, 0 Abstain

D. Resolution 2026-73, Imposing The Annual Stormwater Utility Special Assessments For Fiscal Year Commencing October 1, 2026; Approving The Assessment Roll; Providing For Collection Of The Assessments; And Providing For An Effective Date.

Williams explained it is the same concept for Stormwater assessments as the previous resolution.

Clavier informed everyone that no one was signed up to speak.

MOTION: Still moved to approve Resolution 2026-73
SECOND: Struyf

Vote of the Motion:
Yes: Still, Struyf, Landry, Matlock, Del Gaizo
No: None
Absent: None
Abstain: None

Vote on the Motion: 5 Yes, 0 No, 0 Absent, 0 Abstain

***E. Resolution 2026-74,** Approving An Interlocal Agreement Between Monroe County, City Of Key West, Islamorada, Village Of Islands, City Of Key Colony Beach, City Of Layton, The Florida Keys Aqueduct Authority, And Key Largo Wastewater Treatment District Regarding Florida Keys Stewardship Act (FKSA) Funding Dispersals When New Funding Is Provided Through The FKSA, And Providing For An Effective Date.

Council Comments:

Landry thanked FIRM for all of their work and thanked Jennifer Johnson.

Still reminded everyone that school was starting and to watch out for buses, wished the students and teachers luck and thanked Steve Williams.

Struyf thanked staff and appreciated Williams stepping up to the position of City Manager. Struyf thanked the public for attending the meeting.

Del Gaizo urged the residents to reach out to the Council with questions, the Council wants to hear from you. Del Gaizo reminded everyone to vote on Tuesday.

ADJOURNMENT

With no further business to come before the Council, Mayor Del Gaizo adjourned the meeting at 7:02 pm with unanimous consent.

I certify the above represents an accurate summary of the City Council meeting of August 10, 2026.

_____ _____

Diane Clavier, City Clerk Date

III. Stays of All Litigation

a. Federal Clean Water Act case (currently scheduled for trial in January 2024)

i. Parties will stipulate to a stay until **February 1, 2024**, to coincide with the Feasibility Study process above and the time needed to negotiate a Consent Decree or engage in mediation thereafter, subject to extensions by the Court. The stipulation for a stay will be filed with the Court by joint motion attaching this document and a proposed scheduling order.

ii. Prior to the expiration of the stay, the Parties shall file a joint report as to whether the Parties agree an additional stay is appropriate.

iii. During the stay, no Party shall serve any discovery nor file any dispositive motions in this matter, without leave of the Court. FOLKs reserves the right to move the Court to lift the stay if the City is not in compliance with the Feasibility Study process.

b. DOAH Proceedings: The City will join FOLKs in their request for an extension of time in which to file Petitions or Stay the DOAH litigation on the permits for Areas 3, 4 and 6 while the federal case is pending.

Appendix B
Program Cost Estimates

City of Marathon Deep Injection Well Program

CURRENT IDENTIFIED ALL-IN COST	CONSTRUCTION INCL. CONTINGENCY	CONSTRUCTION CONTINGENCY	DESIGN + CEI / PROJECT MANAGEMENT
$81,107,783.48	**$71,660,536.98**	**$4,979,416.50**	**$9,447,246.50**

Phase	Construction Before Contingency	Contingency	Construction Incl. Contingency	Design / Permitting / Bidding	CEI / Project Management	Current Identified All-In Cost	Cost Basis
Phase 1	$6,807,205.48	$0.00	$6,807,205.48	$275,072.00	$1,100,288.00	**$8,182,565.48**	Contract amount; no separate contingency
Phase 2 & 3B	$7,625,000.00	$0.00	$7,625,000.00	$132,112.00	$528,448.00	**$8,285,560.00**	Contract amount; no separate contingency
Phase 3A	$2,454,750.00	$0.00	$2,454,750.00	$199,194.00	$796,776.00	**$3,450,720.00**	Contract amount; no separate contingency
Phase 4A	$10,342,575.00	$1,034,257.50	$11,376,832.50	$0.00	$1,034,257.50	**$12,411,090.00**	Planning estimate; 10% contingency. Design carried in Phase 1 PSA.
Phase 4B	$22,451,590.00	$2,245,159.00	$24,696,749.00	$0.00	$2,245,159.00	**$26,941,908.00**	Planning estimate; 10% construction contingency.
Phase 5	$17,000,000.00	$1,700,000.00	$18,700,000.00	$598,680.00	$2,537,260.00	**$21,835,940.00**	Planning estimate; 10% construction contingency.
PROGRAM TOTAL	**$66,681,120.48**	**$4,979,416.50**	**$71,660,536.98**	**$1,205,058.00**	**$8,242,188.50**	**$81,107,783.48**	

Funding Snapshot

SECURED FUNDING	PENDING FUNDING	TOTAL IDENTIFIED FUNDING	REMAINING NEED (INCL. BRIDGE)
$50,743,051.72	**$8,509,458.00**	**$59,252,509.72**	**$21,855,273.76**

The $10.0 million Truist line of credit is secured temporary bridge financing. It is included in total identified funding above, but it must ultimately be repaid or replaced by permanent funding.

Construction Before Contingency	Direct construction plus bonds, insurance, and mobilization where applicable.
Construction Incl. Contingency	Construction before contingency plus the contingency shown in the adjacent column.
Current Identified All-In Cost	Construction including contingency plus identified design/permitting/bidding and CEI/project management.

Area 3 WWTP Work				
Description	**Units**	**Qty**	**Unit Cost**	**Total Cost**
Demolition	LS	1	$70,000.00	$70,000.00
Earthwork	LS	1	$50,000.00	$50,000.00
Grading	LS	1	$20,000.00	$20,000.00
BMPs Silt Fence	LS	1	$10,000.00	$10,000.00
Influent Piping	LS	1	$75,000.00	$75,000.00
Effluent Piping	LS	1	$100,000.00	$100,000.00
Supply & Installation of Effluent Pumps	EA	3	$100,000.00	$300,000.00
Integrated clearwell/CCC/holding tank	LS	1	$959,000.00	$959,000.00
Coatings	LS	1	$300,000.00	$300,000.00
Instrumentation & Sampling (CL17, TSS, Flow Meter)	LS	1	$75,000.00	$75,000.00
Electrical	LS	1	$150,000.00	$150,000.00
SCADA System	LS	1	$50,000.00	$50,000.00
Stairway, Handrails, Access Platform	LS	1	$75,000.00	$75,000.00
Process Water Pump System/Reuse	LS	1	$120,000.00	$120,000.00
Shallow Disposal Wells	EA	2	$322,500.00	$645,000.00
316SS Replacement Mudwell Tank & Appurtenances	EA	1	$100,000.00	$100,000.00
			Direct Subtotal	***$3,099,000.00***
Bonds & Insurance	LS	1	$77,475.00	$77,475.00
Mobilization	LS	1	$154,950.00	$154,950.00
			Area 3 WWTP Work Subtotal	**$3,331,425.00**

Area 4 WWTP Work				
Description	**Units**	**Qty**	**Unit Cost**	**Total Cost**
Demolition	LS	1	$70,000.00	$70,000.00
Earthwork	LS	1	$50,000.00	$50,000.00
Grading	LS	1	$20,000.00	$20,000.00
BMPs Silt Fence	LS	1	$10,000.00	$10,000.00
Influent Piping	LS	1	$75,000.00	$75,000.00
Effluent Piping	LS	1	$100,000.00	$100,000.00
Supply & Installation of Effluent Pumps	EA	3	$100,000.00	$300,000.00
Integrated CCC & Effluent Storage Tank	LS	1	$919,000.00	$919,000.00
Coatings	LS	1	$300,000.00	$300,000.00
Instrumentation & Sampling (CL17, TSS, Flow Meter)	LS	1	$75,000.00	$75,000.00
Electrical	LS	1	$110,000.00	$110,000.00
SCADA System	LS	1	$50,000.00	$50,000.00
Stairway, Handrails, Access Platform	LS	1	$50,000.00	$50,000.00
Process Water Pump System/Reuse	LS	1	$120,000.00	$120,000.00
316SS Mudwell System – Tank, Two Return Pumps & Appurtenances	LS	1	$150,000.00	$150,000.00
			Direct Subtotal	***$ 2,399,000.00***
Bonds & Insurance	LS	1	$59,975.00	$59,975.00
Mobilization	LS	1	$119,950.00	$119,950.00
			Area 4 WWTP Work Subtotal	**$2,578,925.00**

Area 5 WWTP Work				
Description	**Units**	**Qty**	**Unit Cost**	**Total Cost**
Demolition	LS	1	$70,000.00	$70,000.00
Earthwork	LS	1	$50,000.00	$50,000.00
Grading	LS	1	$20,000.00	$20,000.00
BMPs Silt Fence	LS	1	$10,000.00	$10,000.00
Influent Piping	LS	1	$75,000.00	$75,000.00
Effluent Piping	LS	1	$100,000.00	$100,000.00
Supply & Installation of Effluent Pumps	EA	2	$100,000.00	$200,000.00
Effluent Holding Tank	LS	1	$919,000.00	$919,000.00
Instrumentation & Sampling (Flow Meter)	LS	1	$30,000.00	$30,000.00
Electrical	LS	1	$75,000.00	$75,000.00
SCADA System	LS	1	$50,000.00	$50,000.00
Process Water Pump System/Reuse	LS	1	$120,000.00	$120,000.00
			Direct Subtotal	***$1,719,000.00***
Bonds & Insurance	LS	1	$42,975.00	$42,975.00
Mobilization	LS	1	$85,950.00	$85,950.00
			Area 5 WWTP Work Subtotal	**$1,847,925.00**

Area 7 WWTP Work				
Description	**Units**	**Qty**	**Unit Cost**	**Total Cost**
Demolition	LS	1	$70,000.00	$70,000.00
Earthwork	LS	1	$50,000.00	$50,000.00
Grading	LS	1	$20,000.00	$20,000.00
BMPs Silt Fence	LS	1	$10,000.00	$10,000.00
Influent Piping	LS	1	$75,000.00	$75,000.00
Effluent Piping	LS	1	$100,000.00	$100,000.00
Supply & Installation of Effluent Pumps	EA	2	$100,000.00	$200,000.00
Integrated CCC & Effluent Holding Tank	LS	1	$959,000.00	$959,000.00
Coatings	LS	1	$300,000.00	$300,000.00
Instrumentation & Sampling (CL17, TSS, Flow Meter)	LS	1	$75,000.00	$75,000.00
Electrical	LS	1	$150,000.00	$150,000.00
SCADA System	LS	1	$50,000.00	$50,000.00
Stairway, Handrails, Access Platform	LS	1	$75,000.00	$75,000.00
Process Water Pump System/Reuse	LS	1	$120,000.00	$120,000.00
316SS Replacement Mudwell Tank & Appurtenances	EA	1	$150,000.00	$150,000.00
			Direct Subtotal	***$2,404,000.00***
Bonds & Insurance	LS	1	$60,100.00	$60,100.00
Mobilization	LS	1	$120,200.00	$120,200.00
			Area 7 WWTP Work Subtotal	**$2,584,300.00**

Area 3 WWTP Work Subtotal		**$3,331,425.00**
Area 4 WWTP Work Subtotal		**$2,578,925.00**
Area 5 WWTP Work Subtotal		**$1,847,925.00**
Area 7 WWTP Work Subtotal		**$2,584,300.00**
Phase 4A Direct Construction Subtotal		***$10,342,575.00***
Construction Contingency	**10%**	**$1,034,257.50**
PHASE 4A CONSTRUCTION TOTAL		**$11,376,832.50**
Construction Engineering Inspection & Project Management	**10%**	**$1,034,257.50**

General / Plantwide Work				
Description	**Units**	**Qty**	**Unit Cost**	**Total Cost**
Demolition, temporary bypass, sequencing and non-vendor startup	LS	1	$50,000.00	$50,000.00
			General / Plantwide Work Subtotal	**$50,000.00**

CROM Tank & Structures				
Description	**Units**	**Qty**	**Unit Cost**	**Total Cost**
Multi-compartment CROM tank and associated structures	LS	1	$2,939,000.00	$2,939,000.00
Interior and exterior CROM coatings	LS	1	$1,361,000.00	$1,361,000.00
Site preparation, dewatering, backfill, wall pipes and penetrations	LS	1	$75,000.00	$75,000.00
External access, guardrails, ladders and hatches	LS	1	$150,000.00	$150,000.00
			CROM Tank & Structures Subtotal	**$4,525,000.00**

Biological & Aeration Systems				
Description	**Units**	**Qty**	**Unit Cost**	**Total Cost**
Xylem/Evoqua SBR, digester, EQ, blowers and master controls — vendor quote	LS	1	$3,246,000.00	$3,246,000.00
Xylem installation/interface balance to installed factor	LS	1	$649,200.00	$649,200.00
Blower platform / structural support	LS	1	$150,000.00	$150,000.00
			Biological & Aeration Systems Subtotal	**$4,045,200.00**

Disc Filtration				
Description	**Units**	**Qty**	**Unit Cost**	**Total Cost**
Two Evoqua Forty-X disc filters — complete installed equipment package	LS	1	$1,500,000.00	$1,500,000.00
Shared walkway and structural modifications	LS	1	$50,000.00	$50,000.00
			Disc Filtration Subtotal	**$1,550,000.00**

MBT Thickening				
Description	**Units**	**Qty**	**Unit Cost**	**Total Cost**
Veolia modules plus permeate/feed-forward/chemical/air auxiliary equipment basis	LS	1	$925,000.00	$925,000.00
Installation balance to standard installed factor	LS	1	$925,000.00	$925,000.00
			MBT Thickening Subtotal	**$1,850,000.00**

Residuals Receiving / Dewatering				
Description	**Units**	**Qty**	**Unit Cost**	**Total Cost**
Truck receiving and raw/sludge lift stations — installed	LS	1	$300,000.00	$300,000.00
Centrifuge/dewatering package, pad and interface — installed	LS	1	$1,400,000.00	$1,400,000.00
			Residuals Receiving / Dewatering Subtotal	**$1,700,000.00**

Headworks / EQ / Chemical				
Description	**Units**	**Qty**	**Unit Cost**	**Total Cost**
Three pre-EQ pumps — installed	LS	1	$150,000.00	$150,000.00
Headworks flow-control, bypass and screening modifications	LS	1	$150,000.00	$150,000.00
Odor-control package — installed	LS	1	$250,000.00	$250,000.00
Chemical-feed equipment — installed	LS	1	$240,000.00	$240,000.00
Standalone process instrumentation and sampling	LS	1	$75,000.00	$75,000.00
			Headworks / EQ / Chemical Subtotal	**$865,000.00**

DIW Pumping / Backup Disposal				
Description	**Units**	**Qty**	**Unit Cost**	**Total Cost**
Four DIW vertical-turbine / short-setting pumps — installed	LS	1	$800,000.00	$800,000.00
DIW common header, valves, meter, wellhead connection and instruments	LS	1	$250,000.00	$250,000.00
New 18-inch backup wells and abandonment of three existing wells	LS	1	$700,000.00	$700,000.00
			DIW Pumping / Backup Disposal Subtotal	**$1,750,000.00**

Electrical / Controls / Building				
Description	**Units**	**Qty**	**Unit Cost**	**Total Cost**
Elevated operations, electrical and laboratory building	LS	1	$1,500,000.00	$1,500,000.00
Main service, MCC, transformers and plantwide panel relocation	LS	1	$1,150,000.00	$1,150,000.00
900 kW standby generator, ATS and elevated platform	LS	1	$900,000.00	$900,000.00
Plantwide SCADA, network, programming and integration	LS	1	$400,000.00	$400,000.00
			Electrical / Controls / Building Subtotal	**$3,950,000.00**

Site Civil / Yard Piping				
Description	**Units**	**Qty**	**Unit Cost**	**Total Cost**
Site civil, drainage, paving, fencing, lighting and restoration	LS	1	$250,000.00	$250,000.00
Common yard/process piping, valves, sleeves, supports and tie-ins	LS	1	$350,000.00	$350,000.00
			Site Civil / Yard Piping Subtotal	**$600,000.00**

General / Plantwide Work Subtotal		**$50,000.00**
CROM Tank & Structures Subtotal		**$4,525,000.00**
Biological & Aeration Systems Subtotal		**$4,045,200.00**
Disc Filtration Subtotal		**$1,550,000.00**
MBT Thickening Subtotal		**$1,850,000.00**
Residuals Receiving / Dewatering Subtotal		**$1,700,000.00**
Headworks / EQ / Chemical Subtotal		**$865,000.00**
DIW Pumping / Backup Disposal Subtotal		**$1,750,000.00**
Electrical / Controls / Building Subtotal		**$3,950,000.00**
Site Civil / Yard Piping Subtotal		**$600,000.00**
Phase 4B Direct Construction Subtotal		***$20,885,200.00***
Bonds & Insurance	**2.5%**	**$522,130.00**
Mobilization	**5%**	**$1,044,260.00**
Phase 4B Construction Subtotal		**$22,451,590.00**
Construction Contingency	**10%**	**$2,245,159.00**
PHASE 4B CONSTRUCTION TOTAL		**$24,696,749.00**
Construction Engineering Inspection & Project Management	**10%**	**$2,245,159.00**

Deep Injection Well & Monitoring Well Construction				
Description	**Units**	**Qty**	**Unit Cost**	**Total Cost**
Deep Injection Well Components	EA	1	$ 12,000,000.00	$ 12,000,000.00
Monitoring Well Components	EA	1	$ 5,000,000.00	$ 5,000,000.00
Phase V Direct Construction Subtotal				**$ 17,000,000.00**
Construction Contingency			**10%**	**$ 1,700,000.00**
PHASE V CONSTRUCTION TOTAL				**$ 18,700,000.00**
WSA			80%	$ 2,266,560.00
WEC			100%	$ 270,700.00
Construction Engineering Inspection & Project Management				**$ 2,537,260.00**

Appendix C
Sludge Analysis

City of Marathon DMR Biosolids, Sidestream, and Hauling Analysis

Purpose	Compile DMR biosolids records for Areas 3, 4, 5, 6, and 7; estimate current and future dry-solids production; calculate thickening decant, dewatering centrate, Area 6 process-flow impacts, EQ loading, and hauling requirements.
System mass balance	System dry solids generated = total dry tons landfilled + total dry tons transferred - total dry tons received. Internal City transfers cancel at the system level. Plant-level monthly values may be negative because receipt, storage, dewatering, and disposal occur in different reporting months.
Data period	January 2019 through June 2026. Area 4 and Area 6 records begin in 2020. Missing DMR parameters remain blank and are not silently estimated.
Current dry-solids indicators	Recent annualized system average (2023-2025): 354.8 dry tons/year. January-June 2026 annualized: 390.1 dry tons/year.
Area 6 flow indicator	Recent Area 6 DMR monthly average flow: approximately 0.118 MGD. The fourth-SBR planning/permitting basis is 0.250 MGD.
Hydraulic formulas	Slurry volume (gal/day) = dry solids (lb/day) ÷ [total-solids fraction × 8.34 lb/gal]. Decant or centrate volume = upstream slurry volume - downstream slurry/cake volume.
Forecast	Recent historical, 2026 annualized, and flow-proportional 2060 cases are shown. The long-term projection uses the Juturna planning-flow increase from 0.95 to 1.65 MGD plus an editable design margin.
Nutrient loading limitation	Hydraulic return is calculated by mass balance. BOD, TKN, ammonia, phosphorus, and soluble nutrient loads require representative sampling and/or vendor guarantees. Yellow cells are intentionally reserved for those inputs.
Primary sources	Monthly DMR Part A files in DMRs.zip; DIW Modeling Report 250219.pdf; November 9, 2023 planning document; Area 6 process-design documents.

Workbook Conventions	
Yellow cells	Editable assumptions or City/vendor information still required.
Blue cells	Formula-driven calculations.
Red cells	Critical limitation or missing input that must be resolved before final process permitting.
Traceability	Relative source-PDF paths are retained for extracted DMR values.

UPDATE: SYNAGRO INVOICES, DRY-TON BILLING, AND CAKE SOLIDS

Dry-ton definition	Synagro's 'Dry Ton' is a dry-solids-equivalent billing unit, calculated from the actual wet cake weight and measured percent solids. It does not mean the hauled cake is 100% dry. The detailed tickets show actual dewatered cake
Billing formula	Billed dry tons = net wet cake weight (lb) ÷ 2,000 × cake total-solids fraction. Wet cake tons = net weight (lb) ÷ 2,000.
Invoice record	The supplied record contains 17 invoices from October 2019 through July 2026 totaling approximately $1.054 million and 584.888 billed dry tons. Because the records are campaign invoices rather than a complete monthly general
Rate history	The documented all-in rate was $1,490/dry ton in 2019-2020, $1,795/dry ton in 2024-2025, and $1,888.33/dry ton in the latest supplied invoices. The current rate is used for forward-looking contractor-service normalization.
Cake-solids calibration	Forty-seven detailed cake loads total approximately 1,095.85 wet tons and 226.325 billed dry tons. The invoice-weighted cake concentration is about 20.65% overall; the 2024-2025 detailed records average about 19.15%.
Feed-solids calibration	The 2019-2020 records pair 1,175,826 gallons processed with 94.611 billed dry tons, implying an average incoming solids concentration of about 1.93% by mass, with campaign values from about 1.16% to 2.90%.
Design use	The workbook retains a conservative 1.0% incoming-solids hydraulic case and a 20% cake design target, while adding invoice-calibrated cases and sensitivity checks. Representative sidestream BOD, TKN, ammonia, phosphorus, alkalinity, and TSS data are still required for the Area 6 biological process design.

Key Workbook Outputs	
Sheet	**Primary use**
Dashboard	Executive metrics, hydraulic return, rate history, and cake-solids visuals.
Synagro Detail	Invoice-level dry-ton billing audit and source traceability.
Cake Load Detail	Load-by-load wet cake, percent solids, and dry-solids-equivalent calculation.
Invoice Calibration	Observed feed concentration, cake concentration, and hydraulic-return calibration.
Actual Cost Summary	Supplied invoice totals, rates, cake evidence, and normalized annual/30-year cost.
Dewatering Economics	Break-even screen for City-owned mechanical dewatering versus the current bundled service.
Cost & Haul Forecast	Annual dry-solids, wet cake, truckload, and contractor-cost forecast through 2060.

UPDATE: FACILITIES-PLAN RESIDUALS ALTERNATIVES LCCA

LCCA method	Two views are provided: full identified residuals-program cost and decision-specific cost excluding common central capital. Annual cash flow includes dry-solids growth, cost escalation, truckloads, overhaul/replacement, constant-dollar totals, nominal outlay, and 3% present worth.
Alternatives	Synagro bundled service; 2% and 3% liquid hauling; City-owned fixed dewatering with bundled haul/disposition; City-owned dewatering with haul-only contract and direct tipping; City self-haul; contract operation; five-year deferral; and distributed/mobile City dewatering.
Base planning selection	City-owned fixed dewatering with a competitively procured haul-only contractor and City-direct tipping/acceptance agreement. The selection is subject to local quotations and receiving-capacity confirmation.
Escalation	Synagro base case uses 3%/year, with the 2% contract floor, 4.03% historical invoice CAGR, and 5.2% recent annual adjustment shown as sensitivities. City retained O&M/haul costs use 2.5%/year.
Liquid hauling caveat	The route-based liquid-haul case uses a 300-mile round trip, specialized tanker rate, load fee, and accepting-facility fee. The $0.079/gal public benchmark is shown only as a haul-only lower bound and is not a Marathon quote.
Cost allocation	The $2.2175 million Phase IVB digester/sludge-processing equipment subtotal is included as identified common residuals capital. Shared tank/building/site/DIW allocations default to zero and are editable because of project overlap.
Non-cost screening	Reliability, truck/spill exposure, City control, Area 6 integration, staffing/fleet burden, outlet flexibility, and implementation risk are separately scored and combined with cost.
New sheets	LCCA Inputs, LCCA Annual, LCCA Summary, LCCA Sensitivity, Non-Cost Matrix, and FP LCCA Exhibit.

Model Inputs and Design Assumptions

Category	Input	Value	Units	Source / Rationale	Review Status
Historical basis	Recent dry solids basis	354.8031515	dry tons/year	2023-2025 annualized system DMR average	Formula-backed baseline
Historical basis	2026 annualized dry solids	390.06	dry tons/year	January-June 2026 DMR mass balance annualized	Partial-year indicator
Forecast	Juturna current/system flow	0.95	MGD	2023 planning-document total City wastewater flow	Source document
Forecast	Juturna 2060 system flow	1.65	MGD	2023 planning-document 2060 total City wastewater flow	Source document
Forecast	Forecast base year	2023	year	Planning baseline	Editable
Forecast	Forecast horizon year	2060	year	Planning horizon	Editable
Forecast	Design margin	10.0%	fraction	Applied to projected dry-solids basis	Editable
Solids	Incoming hauled sludge TS	1.0%	fraction	Conservative hydraulic design case; invoice-derived observed average is approximately 1.93%.	Design conservative; calibrated in Invoice
Solids	First-stage thickened TS	2.0%	fraction	Requested 2% thickening case.	Design assumption
Solids	Second-stage thickened TS	3.0%	fraction	Requested 3% thickening case.	Design assumption
Solids	Dewatered cake TS	20.0%	fraction	Planning target; detailed Synagro tickets average approximately 19.15% in 2024-2025 and 20.65% overall.	Invoice-supported design target
Solids	Liquid/slurry density	834.0%	lb/gal	Water-equivalent planning density	Editable
Dewatering	Solids capture efficiency	95.0%	fraction	Planning assumption	Vendor/sampling verification
Operations	Thickening operating days	700.0%	days/week	Continuous planning basis	Editable
Operations	Thickening hours	24	hours/day	Continuous planning basis	Editable
Operations	Dewatering operating days	5	days/week	Batch planning basis	Editable
Operations	Dewatering hours	8	hours/day	Batch planning basis	Editable
Area 6	Recent Area 6 AADF	0.118	MGD	Available 2025-June 2026 DMR monthly averages	Formula-backed baseline
Area 6	Proposed permitted capacity	0.250	MGD	Fourth-SBR planning/permitting basis	Design basis
Area 6	Pre-EQ volume	120000	gal	Current design basis	Design basis
Area 6	MBT volume	75000	gal	Current design basis	Design basis
Area 6	Aerobic digester volume	500000	gal	Current design basis	Design basis
Hauling	Liquid tanker usable capacity	5500	gal/trip	Planning assumption	Replace with contractor data
Hauling	Cake trailer payload	20	wet tons/trip	Planning assumption	Replace with contractor data
Hauling	Liquid hauling cost	2500.00	$/trip	Current hauler rate not provided	**CITY INPUT REQUIRED**
Hauling	Cake hauling/disposal cost		$/wet ton	Current hauler/disposal rate not provided	**CITY INPUT REQUIRED**
Sidestream	Combined sidestream BOD		mg/L	Representative sampling/vendor data required	**CRITICAL INPUT**
Sidestream	Combined sidestream TKN		mg/L	Representative sampling/vendor data required	**CRITICAL INPUT**
Sidestream	Combined sidestream TP		mg/L	Representative sampling/vendor data required	**CRITICAL INPUT**

ACTUAL SYNAGRO / SLUDGE RECORD BASIS

Invoice record	Supplied invoice count	17.000	invoices	October 2019 through July 2026	Source-backed
Invoice record	Supplied invoice cost	$1,054,482.65	$	Sum of 17 supplied invoice totals	Source-backed
Invoice record	Supplied billed dry tons	584.88818	dry tons equivalent	Invoice billing quantities; not wet cake tons	Source-backed
Invoice record	Weighted supplied invoice rate	$1,802.88	$/dry ton	Total supplied cost ÷ total billed dry tons	Formula-backed
Invoice record	Current Synagro all-in rate	$1,888.33	$/dry ton	Latest supplied invoices, September 2025-July 2026	Current source rate
Invoice record	2019-2020 Synagro rate	$1,490.00	$/dry ton	Invoices 10669, 11017, 11838, and 12501	Historical source rate
Invoice record	2024-2025 Synagro rate	$1,795.00	$/dry ton	Invoices 52108, 52717, and 59055	Historical source rate
Invoice record	Historical rate escalation sensitivity	4.0%	fraction/year	Approximate six-year compound change; use as sensitivity, not a contract forecast	Sensitivity only
Cake records	Detailed cake loads	47	loads	Detailed Synagro ticket records	Source-backed
Cake records	Detailed wet cake	1,095.85	wet tons	Net ticket weight ÷ 2,000	Source-backed
Cake records	Detailed billed dry solids	226.32	dry tons equivalent	Authoritative invoice quantities for detailed invoices	Source-backed
Cake records	Overall invoice-weighted cake TS	20.65%	fraction	Detailed 2019-2020 and 2024-2025 records	Formula-backed
Cake records	2019-2020 invoice-weighted cake TS	23.18%	fraction	18 loads	Formula-backed
Cake records	2024-2025 invoice-weighted cake TS	19.15%	fraction	29 loads	Formula-backed
Feed records	Processed liquid volume	117582600.00%	gallons	2019-2020 invoices with non-billable processed-gallon lines	Source-backed
Feed records	Invoice-derived incoming feed TS	0	fraction	Billed dry solids ÷ processed liquid mass	Formula-backed
Feed records	Observed campaign feed TS range	1.16% to 2.90%	fraction	Eight plant/invoice campaign lines	Formula-backed
Source package	New detailed invoices	INV# 10669, 11017, 11838, 12501	PDF	Synagro invoices and supporting load/process records	Source-backed

Extracted Monthly DMR Biosolids Quantities

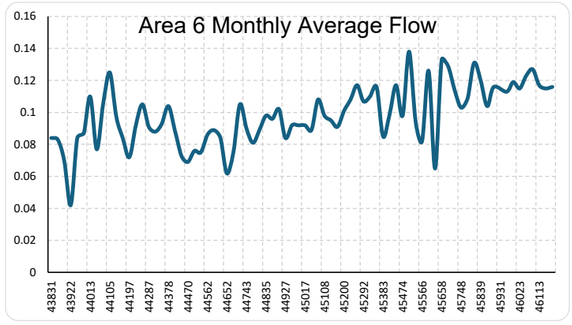
Month	Plant	Year	Landfilled (dry tons)	Transferred (dry tons)	Received (dry tons)	Net Generated / Handled (dry	Status	Landfilled Source	Transferred Source	Received Source	Mass-Balance Note	Source Permit Record Type
Jan-19	Area 3	2019	5.170	0.000	0.000	5.170	Complete	Area 3 WWTP DMRs/2019 DMRs/part A/January 2019 part A.pdf	Area 3 WWTP DMRs/2019 DMRs/part A/January 2019 part A.pdf		Area 3 DMR does not report Received; zero used.	DMR Part A
Feb-19	Area 3	2019	2.980	3.169	0.000	6.149	Complete	Area 3 WWTP DMRs/2019 DMRs/part A/February 2019 part A.pdf	Area 3 WWTP DMRs/2019 DMRs/part A/February 2019 part A.pdf		Area 3 DMR does not report Received; zero used.	DMR Part A
Mar-19	Area 3	2019	8.674	0.000	0.000	8.674	Complete	Area 3 WWTP DMRs/2019 DMRs/part A/March 2019 part A.pdf	Area 3 WWTP DMRs/2019 DMRs/part A/March 2019 part A.pdf		Area 3 DMR does not report Received; zero used.	DMR Part A
Apr-19	Area 3	2019	5.930	0.000	0.000	5.930	Complete	Area 3 WWTP DMRs/2019 DMRs/part A/April 2019 part A.pdf	Area 3 WWTP DMRs/2019 DMRs/part A/April 2019 part A.pdf		Area 3 DMR does not report Received; zero used.	DMR Part A
May-19	Area 3	2019	8.780	0.000	0.000	8.780	Complete	Area 3 WWTP DMRs/2019 DMRs/part A/May 2019 part A.pdf	Area 3 WWTP DMRs/2019 DMRs/part A/May 2019 part A.pdf		Area 3 DMR does not report Received; zero used.	DMR Part A
Jun-19	Area 3	2019	5.310	0.500	0.000	5.810	Complete	Area 3 WWTP DMRs/2019 DMRs/part A/June 2019 part A.pdf	Area 3 WWTP DMRs/2019 DMRs/part A/June 2019 part A.pdf		Area 3 DMR does not report Received; zero used.	DMR Part A
Jul-19	Area 3	2019	0.740	13.530	0.000	14.270	Complete	Area 3 WWTP DMRs/2019 DMRs/part A/July 2019 part A.pdf	Area 3 WWTP DMRs/2019 DMRs/part A/July 2019 part A.pdf		Area 3 DMR does not report Received; zero used.	DMR Part A
Aug-19	Area 3	2019	0.000	5.980	0.000	5.980	Complete	Area 3 WWTP DMRs/2019 DMRs/part A/August 2019 part A.pdf	Area 3 WWTP DMRs/2019 DMRs/part A/August 2019 part A.pdf		Area 3 DMR does not report Received; zero used.	DMR Part A
Sep-19	Area 3	2019	10.840	0.000	0.000	10.840	Complete	Area 3 WWTP DMRs/2019 DMRs/part A/September 2019 part A.pdf	Area 3 WWTP DMRs/2019 DMRs/part A/September 2019 part A.pdf		Area 3 DMR does not report Received; zero used.	DMR Part A
Oct-19	Area 3	2019	0.000	2.830	0.000	2.830	Complete	Area 3 WWTP DMRs/2019 DMRs/part A/October 2019 part A.pdf	Area 3 WWTP DMRs/2019 DMRs/part A/October 2019 part A.pdf		Area 3 DMR does not report Received; zero used.	DMR Part A
Nov-19	Area 3	2019			0.000		Missing DMR parameter/month				Area 3 DMR does not report Received; zero used.	DMR Part A
Dec-19	Area 3	2019			0.000		Missing DMR parameter/month				Area 3 DMR does not report Received; zero used.	DMR Part A
Jan-20	Area 3	2020			0.000		Missing DMR parameter/month				Area 3 DMR does not report Received; zero used.	DMR Part A
Feb-20	Area 3	2020	0.000	0.000	0.000	0.000	Complete	Area 3 WWTP DMRs/2020 DMRs/part A/FEB. 2020 (1).pdf	Area 3 WWTP DMRs/2020 DMRs/part A/FEB. 2020 (1).pdf		Area 3 DMR does not report Received; zero used.	DMR Part A
Mar-20	Area 3	2020	5.200	0.000	0.000	5.200	Complete	Area 3 WWTP DMRs/2020 DMRs/part A/MAR. 2020 (1).pdf	Area 3 WWTP DMRs/2020 DMRs/part A/MAR. 2020 (1).pdf		Area 3 DMR does not report Received; zero used.	DMR Part A
Apr-20	Area 3	2020			0.000		Missing DMR parameter/month				Area 3 DMR does not report Received; zero used.	DMR Part A
May-20	Area 3	2020	9.290	0.000	0.000	9.290	Complete	Area 3 WWTP DMRs/2020 DMRs/part A/may 2020 part A.pdf	Area 3 WWTP DMRs/2020 DMRs/part A/may 2020 part A.pdf		Area 3 DMR does not report Received; zero used.	DMR Part A
Jun-20	Area 3	2020	6.960	2.630	0.000	9.590	Complete	Area 3 WWTP DMRs/2020 DMRs/part A/June 2020 part A.pdf	Area 3 WWTP DMRs/2020 DMRs/part A/June 2020 part A.pdf		Area 3 DMR does not report Received; zero used.	DMR Part A
Jul-20	Area 3	2020	13.900	0.000	0.000	13.900	Complete	Area 3 WWTP DMRs/2020 DMRs/part A/JUly 2020 part A.pdf	Area 3 WWTP DMRs/2020 DMRs/part A/JUly 2020 part A.pdf		Area 3 DMR does not report Received; zero used.	DMR Part A
Aug-20	Area 3	2020	7.330	0.000	0.000	7.330	Complete	Area 3 WWTP DMRs/2020 DMRs/part A/Aug 2020 part A.pdf	Area 3 WWTP DMRs/2020 DMRs/part A/Aug 2020 part A.pdf		Area 3 DMR does not report Received; zero used.	DMR Part A
Sep-20	Area 3	2020	0.000	0.000	0.000	0.000	Complete	Area 3 WWTP DMRs/2020 DMRs/part A/Sept 2020 part A.pdf	Area 3 WWTP DMRs/2020 DMRs/part A/Sept 2020 part A.pdf		Area 3 DMR does not report Received; zero used.	DMR Part A
Oct-20	Area 3	2020	8.551	0.000	0.000	8.551	Complete	Area 3 WWTP DMRs/2020 DMRs/part A/Oct 2020 part A.pdf	Area 3 WWTP DMRs/2020 DMRs/part A/Oct 2020 part A.pdf		Area 3 DMR does not report Received; zero used.	DMR Part A
Nov-20	Area 3	2020	8.550	0.000	0.000	8.550	Complete	Area 3 WWTP DMRs/2020 DMRs/part A/Nov 2020 part	Area 3 WWTP DMRs/2020 DMRs/part A/Nov 2020 part		Area 3 DMR does not report Received; zero used.	DMR Part A
Dec-20	Area 3	2020	21.600	0.000	0.000	21.600	Complete	Area 3 WWTP DMRs/2020 DMRs/part A/DEc 2020 part A.pdf	Area 3 WWTP DMRs/2020 DMRs/part A/DEc 2020 part A.pdf		Area 3 DMR does not report Received; zero used.	DMR Part A
Jan-21	Area 3	2021	4.496	0.000	0.000	4.496	Complete	Area 3 WWTP DMRs/2021 DMR/Part A/Jan 2021 part A.pdf	Area 3 WWTP DMRs/2021 DMR/Part A/Jan 2021 part A.pdf		Area 3 DMR does not report Received; zero used.	DMR Part A
Feb-21	Area 3	2021	3.840	0.000	0.000	3.840	Complete	Area 3 WWTP DMRs/2021 DMR/Part A/FEb 2021 part A.pdf	Area 3 WWTP DMRs/2021 DMR/Part A/FEb 2021 part A.pdf		Area 3 DMR does not report Received; zero used.	DMR Part A
Mar-21	Area 3	2021	2.400	0.000	0.000	2.400	Complete	Area 3 WWTP DMRs/2021 DMR/Part A/march 2021 part A.pdf	Area 3 WWTP DMRs/2021 DMR/Part A/march 2021 part A.pdf		Area 3 DMR does not report Received; zero used.	DMR Part A
Apr-21	Area 3	2021	7.240	0.000	0.000	7.240	Complete	Area 3 WWTP DMRs/2021 DMR/Part A/April 2021 part	Area 3 WWTP DMRs/2021 DMR/Part A/April 2021 part		Area 3 DMR does not report Received; zero used.	DMR Part A
May-21	Area 3	2021	0.000	1.940	0.000	1.940	Complete	Area 3 WWTP DMRs/2021 DMR/Part A/may 2021 part A.pdf	Area 3 WWTP DMRs/2021 DMR/Part A/may 2021 part A.pdf		Area 3 DMR does not report Received; zero used.	DMR Part A
Jun-21	Area 3	2021	0.000	4.800	0.000	4.800	Complete	Area 3 WWTP DMRs/2021 DMR/Part A/June 2021 part A.pdf	Area 3 WWTP DMRs/2021 DMR/Part A/June 2021 part A.pdf		Area 3 DMR does not report Received; zero used.	DMR Part A
Jul-21	Area 3	2021	0.000	7.280	0.000	7.280	Complete	Area 3 WWTP DMRs/2021 DMR/Part A/July 2021 part a.pdf	Area 3 WWTP DMRs/2021 DMR/Part A/July 2021 part a.pdf		Area 3 DMR does not report Received; zero used.	DMR Part A
Aug-21	Area 3	2021	0.000	4.200	0.000	4.200	Complete	Area 3 WWTP DMRs/2021 DMR/Part A/Aug 2021 part A.pdf	Area 3 WWTP DMRs/2021 DMR/Part A/Aug 2021 part A.pdf		Area 3 DMR does not report Received; zero used.	DMR Part A
Sep-21	Area 3	2021	0.000	0.000	0.000	0.000	Complete	Area 3 WWTP DMRs/2021 DMR/Part A/Sept 2021 part A.pdf	Area 3 WWTP DMRs/2021 DMR/Part A/Sept 2021 part A.pdf		Area 3 DMR does not report Received; zero used.	DMR Part A
Oct-21	Area 3	2021	0.000	10.550	0.000	10.550	Complete	Area 3 WWTP DMRs/2021 DMR/Part A/Oct 2021 part A.pdf	Area 3 WWTP DMRs/2021 DMR/Part A/Oct 2021 part A.pdf		Area 3 DMR does not report Received; zero used.	DMR Part A
Nov-21	Area 3	2021	0.000	3.660	0.000	3.660	Complete	Area 3 WWTP DMRs/2021 DMR/Part A/Nov 2021 part A.pdf	Area 3 WWTP DMRs/2021 DMR/Part A/Nov 2021 part A.pdf		Area 3 DMR does not report Received; zero used.	DMR Part A
Dec-21	Area 3	2021	0.000	3.800	0.000	3.800	Complete	Area 3 WWTP DMRs/2021 DMR/Part A/Dec 2021 part A.pdf	Area 3 WWTP DMRs/2021 DMR/Part A/Dec 2021 part A.pdf		Area 3 DMR does not report Received; zero used.	DMR Part A
Jan-22	Area 3	2022	0.000	9.230	0.000	9.230	Complete	Area 3 WWTP DMRs/2022 DMR/part A/jan part a.pdf	Area 3 WWTP DMRs/2022 DMR/part A/jan part a.pdf		Area 3 DMR does not report Received; zero used.	DMR Part A
Feb-22	Area 3	2022	0.000	2.210	0.000	2.210	Complete	Area 3 WWTP DMRs/2022 DMR/part A/feb part a.pdf	Area 3 WWTP DMRs/2022 DMR/part A/feb part a.pdf		Area 3 DMR does not report Received; zero used.	DMR Part A
Mar-22	Area 3	2022	0.000	8.830	0.000	8.830	Complete	Area 3 WWTP DMRs/2022 DMR/part A/march part a.pdf	Area 3 WWTP DMRs/2022 DMR/part A/march part a.pdf		Area 3 DMR does not report Received; zero used.	DMR Part A
Apr-22	Area 3	2022	0.000	7.200	0.000	7.200	Complete	Area 3 WWTP DMRs/2022 DMR/part A/April part a.pdf	Area 3 WWTP DMRs/2022 DMR/part A/April part a.pdf		Area 3 DMR does not report Received; zero used.	DMR Part A
May-22	Area 3	2022	0.000	4.500	0.000	4.500	Complete	Area 3 WWTP DMRs/2022 DMR/part A/may part a.pdf	Area 3 WWTP DMRs/2022 DMR/part A/may part a.pdf		Area 3 DMR does not report Received; zero used.	DMR Part A
Jun-22	Area 3	2022	0.000	11.100	0.000	11.100	Complete	Area 3 WWTP DMRs/2022 DMR/part A/June part a.pdf	Area 3 WWTP DMRs/2022 DMR/part A/June part a.pdf		Area 3 DMR does not report Received; zero used.	DMR Part A
Jul-22	Area 3	2022	0.000	0.000	0.000	0.000	Complete	Area 3 WWTP DMRs/2022 DMR/part A/July part a.pdf	Area 3 WWTP DMRs/2022 DMR/part A/July part a.pdf		Area 3 DMR does not report Received; zero used.	DMR Part A
Aug-22	Area 3	2022	0.000	9.070	0.000	9.070	Complete	Area 3 WWTP DMRs/2022 DMR/part A/Aug part a.pdf	Area 3 WWTP DMRs/2022 DMR/part A/Aug part a.pdf		Area 3 DMR does not report Received; zero used.	DMR Part A
Sep-22	Area 3	2022	0.000	2.430	0.000	2.430	Complete	Area 3 WWTP DMRs/2022 DMR/part A/Sept part a.pdf	Area 3 WWTP DMRs/2022 DMR/part A/Sept part a.pdf		Area 3 DMR does not report Received; zero used.	DMR Part A
Oct-22	Area 3	2022	0.000	8.010	0.000	8.010	Complete	Area 3 WWTP DMRs/2022 DMR/part A/october part a.pdf	Area 3 WWTP DMRs/2022 DMR/part A/october part a.pdf		Area 3 DMR does not report Received; zero used.	DMR Part A
Nov-22	Area 3	2022	0.000	0.000	0.000	0.000	Complete	Area 3 WWTP DMRs/2022 DMR/part A/november part a.pdf	Area 3 WWTP DMRs/2022 DMR/part A/november part a.pdf		Area 3 DMR does not report Received; zero used.	DMR Part A
Dec-22	Area 3	2022	0.000	6.300	0.000	6.300	Complete	Area 3 WWTP DMRs/2022 DMR/part A/december part a.pdf	Area 3 WWTP DMRs/2022 DMR/part A/december part a.pdf		Area 3 DMR does not report Received; zero used.	DMR Part A
Jan-23	Area 3	2023	0.000	0.000	0.000	0.000	Complete	Area 3 WWTP DMRs/2023 DMR/part A/jan 2023 part a.pdf	Area 3 WWTP DMRs/2023 DMR/part A/jan 2023 part a.pdf		Area 3 DMR does not report Received; zero used.	DMR Part A
Feb-23	Area 3	2023	0.000	4.440	0.000	4.440	Complete	Area 3 WWTP DMRs/2023 DMR/part A/2023 Part A.pdf	Area 3 WWTP DMRs/2023 DMR/part A/2023 Part A.pdf		Area 3 DMR does not report Received; zero used.	DMR Part A
Mar-23	Area 3	2023	0.000	15.856	0.000	15.856	Complete	Area 3 WWTP DMRs/2023 DMR/part A/March 2023 part A.pdf	Area 3 WWTP DMRs/2023 DMR/part A/March 2023 part A.pdf		Area 3 DMR does not report Received; zero used.	DMR Part A
Apr-23	Area 3	2023	0.000	0.000	0.000	0.000	Complete	Area 3 WWTP DMRs/2023 DMR/part A/April 2023 Part	Area 3 WWTP DMRs/2023 DMR/part A/April 2023 Part		Area 3 DMR does not report Received; zero used.	DMR Part A
May-23	Area 3	2023	0.000	10.880	0.000	10.880	Complete	Area 3 WWTP DMRs/2023 DMR/part A/May 2023 part A dmr.pdf	Area 3 WWTP DMRs/2023 DMR/part A/May 2023 part A dmr.pdf		Area 3 DMR does not report Received; zero used.	DMR Part A
Jun-23	Area 3	2023	0.000	5.740	0.000	5.740	Complete	Area 3 WWTP DMRs/2023 DMR/part A/June 2023 part A too dmr.pdf	Area 3 WWTP DMRs/2023 DMR/part A/June 2023 part A too dmr.pdf		Area 3 DMR does not report Received; zero used.	DMR Part A
Jul-23	Area 3	2023	0.000	4.720	0.000	4.720	Complete	Area 3 WWTP DMRs/2023 DMR/part A/July 2023 part A too dmr.pdf	Area 3 WWTP DMRs/2023 DMR/part A/July 2023 part A too dmr.pdf		Area 3 DMR does not report Received; zero used.	DMR Part A
Aug-23	Area 3	2023	0.000	8.170	0.000	8.170	Complete	Area 3 WWTP DMRs/2023 DMR/part A/Aug 2023 part A too dmr.pdf	Area 3 WWTP DMRs/2023 DMR/part A/Aug 2023 part A too dmr.pdf		Area 3 DMR does not report Received; zero used.	DMR Part A
Sep-23	Area 3	2023	0.000	8.170	0.000	8.170	Complete	Area 3 WWTP DMRs/2023 DMR/part A/Sept 2023 part A dmr.pdf	Area 3 WWTP DMRs/2023 DMR/part A/Sept 2023 part A dmr.pdf		Area 3 DMR does not report Received; zero used.	DMR Part A
Oct-23	Area 3	2023	0.000	0.000	0.000	0.000	Complete	Area 3 WWTP DMRs/2023 DMR/part A/oct 2023 Part a.pdf	Area 3 WWTP DMRs/2023 DMR/part A/oct 2023 Part a.pdf		Area 3 DMR does not report Received; zero used.	DMR Part A
Nov-23	Area 3	2023	0.000	9.080	0.000	9.080	Complete	Area 3 WWTP DMRs/2023 DMR/part A/November 2023 Part A.pdf	Area 3 WWTP DMRs/2023 DMR/part A/November 2023 Part A.pdf		Area 3 DMR does not report Received; zero used.	DMR Part A
Dec-23	Area 3	2023	0.000	0.000	0.000	0.000	Complete	Area 3 WWTP DMRs/2023 DMR/part A/Dec 2023 part A too dmr.pdf	Area 3 WWTP DMRs/2023 DMR/part A/Dec 2023 part A too dmr.pdf		Area 3 DMR does not report Received; zero used.	DMR Part A
Jan-24	Area 3	2024	0.000	8.260	0.000	8.260	Complete	Area 3 WWTP DMRs/2024 DMR/part A/january 2024 part A.pdf	Area 3 WWTP DMRs/2024 DMR/part A/january 2024 part A.pdf		Area 3 DMR does not report Received; zero used.	DMR Part A
Feb-24	Area 3	2024	0.000	8.260	0.000	8.260	Complete	Area 3 WWTP DMRs/2024 DMR/part A/february 2024 part A.pdf	Area 3 WWTP DMRs/2024 DMR/part A/february 2024 part A.pdf		Area 3 DMR does not report Received; zero used.	DMR Part A
Mar-24	Area 3	2024	0.000	0.000	0.000	0.000	Complete	Area 3 WWTP DMRs/2024 DMR/part A/march 2024 part A.pdf	Area 3 WWTP DMRs/2024 DMR/part A/march 2024 part A.pdf		Area 3 DMR does not report Received; zero used.	DMR Part A
Apr-24	Area 3	2024	0.000	12.390	0.000	12.390	Complete	Area 3 WWTP DMRs/2024 DMR/part A/april 2024 part A.pdf	Area 3 WWTP DMRs/2024 DMR/part A/april 2024 part A.pdf		Area 3 DMR does not report Received; zero used.	DMR Part A
May-24	Area 3	2024	0.000	0.000	0.000	0.000	Complete	Area 3 WWTP DMRs/2024 DMR/part A/May 2024 part A.pdf	Area 3 WWTP DMRs/2024 DMR/part A/May 2024 part A.pdf		Area 3 DMR does not report Received; zero used.	DMR Part A
Jun-24	Area 3	2024	0.000	9.200	0.000	9.200	Complete	Area 3 WWTP DMRs/2024 DMR/part A/June 2024 part a.pdf	Area 3 WWTP DMRs/2024 DMR/part A/June 2024 part a.pdf		Area 3 DMR does not report Received; zero used.	DMR Part A
Jul-24	Area 3	2024	0.000	9.200	0.000	9.200	Complete	Area 3 WWTP DMRs/2024 DMR/part A/July 2024 part A.pdf	Area 3 WWTP DMRs/2024 DMR/part A/July 2024 part A.pdf		Area 3 DMR does not report Received; zero used.	DMR Part A
Aug-24	Area 3	2024	0.000	0.000	0.000	0.000	Complete	Area 3 WWTP DMRs/2024 DMR/part A/Aug 2024 part A.pdf	Area 3 WWTP DMRs/2024 DMR/part A/Aug 2024 part A.pdf		Area 3 DMR does not report Received; zero used.	DMR Part A
Sep-24	Area 3	2024	0.000	9.510	0.000	9.510	Complete	Area 3 WWTP DMRs/2024 DMR/part A/Sept 2024 part A.pdf	Area 3 WWTP DMRs/2024 DMR/part A/Sept 2024 part A.pdf		Area 3 DMR does not report Received; zero used.	DMR Part A
Oct-24	Area 3	2024	0.000	2.540	0.000	2.540	Complete	Area 3 WWTP DMRs/2024 DMR/part A/oct 2024 part A.pdf	Area 3 WWTP DMRs/2024 DMR/part A/oct 2024 part A.pdf		Area 3 DMR does not report Received; zero used.	DMR Part A
Nov-24	Area 3	2024	0.000	0.000	0.000	0.000	Complete	Area 3 WWTP DMRs/2024 DMR/part A/nov 2024 part a.pdf	Area 3 WWTP DMRs/2024 DMR/part A/nov 2024 part a.pdf		Area 3 DMR does not report Received; zero used.	DMR Part A
Dec-24	Area 3	2024	0.000	9.760	0.000	9.760	Complete	Area 3 WWTP DMRs/2024 DMR/part A/dec 2024 part a.pdf	Area 3 WWTP DMRs/2024 DMR/part A/dec 2024 part a.pdf		Area 3 DMR does not report Received; zero used.	DMR Part A
Jan-25	Area 3	2025	0.000	10.320	0.000	10.320	Complete	Area 3 WWTP DMRs/2025 DMR/part A/jan 2025 part a.pdf	Area 3 WWTP DMRs/2025 DMR/part A/jan 2025 part a.pdf		Area 3 DMR does not report Received; zero used.	DMR Part A
Feb-25	Area 3	2025	0.000	0.000	0.000	0.000	Complete	Area 3 WWTP DMRs/2025 DMR/part A/feb 2025 part a.pdf	Area 3 WWTP DMRs/2025 DMR/part A/feb 2025 part a.pdf		Area 3 DMR does not report Received; zero used.	DMR Part A
Mar-25	Area 3	2025	0.000	7.880	0.000	7.880	Complete	Area 3 WWTP DMRs/2025 DMR/part A/march 2025 part a.pdf	Area 3 WWTP DMRs/2025 DMR/part A/march 2025 part a.pdf		Area 3 DMR does not report Received; zero used.	DMR Part A
Apr-25	Area 3	2025	0.000	7.610	0.000	7.610	Complete	Area 3 WWTP DMRs/2025 DMR/part A/april 2025 part a.pdf	Area 3 WWTP DMRs/2025 DMR/part A/april 2025 part a.pdf		Area 3 DMR does not report Received; zero used.	DMR Part A
May-25	Area 3	2025	0.000	2.250	0.000	2.250	Complete	Area 3 WWTP DMRs/2025 DMR/part A/may part a.pdf	Area 3 WWTP DMRs/2025 DMR/part A/may part a.pdf		Area 3 DMR does not report Received; zero used.	DMR Part A
Jun-25	Area 3	2025	0.000	10.470	0.000	10.470	Complete	Area 3 WWTP DMRs/2025 DMR/part A/june part a.pdf	Area 3 WWTP DMRs/2025 DMR/part A/june part a.pdf		Area 3 DMR does not report Received; zero used.	DMR Part A
Jul-25	Area 3	2025	0.000	0.000	0.000	0.000	Complete	Area 3 WWTP DMRs/2025 DMR/part A/july part a.pdf	Area 3 WWTP DMRs/2025 DMR/part A/july part a.pdf		Area 3 DMR does not report Received; zero used.	DMR Part A
Aug-25	Area 3	2025	0.000	10.470	0.000	10.470	Complete	Area 3 WWTP DMRs/2025 DMR/part A/aug part a.pdf	Area 3 WWTP DMRs/2025 DMR/part A/aug part a.pdf		Area 3 DMR does not report Received; zero used.	DMR Part A
Sep-25	Area 3	2025	0.000	0.000	0.000	0.000	Complete	Area 3 WWTP DMRs/2025 DMR/part A/sept part a.pdf	Area 3 WWTP DMRs/2025 DMR/part A/sept part a.pdf		Area 3 DMR does not report Received; zero used.	DMR Part A
Oct-25	Area 3	2025	0.000	9.830	0.000	9.830	Complete	Area 3 WWTP DMRs/2025 DMR/part A/oct part a.pdf	Area 3 WWTP DMRs/2025 DMR/part A/oct part a.pdf		Area 3 DMR does not report Received; zero used.	DMR Part A
Nov-25	Area 3	2025	0.000	0.000	0.000	0.000	Complete	Area 3 WWTP DMRs/2025 DMR/part A/nov part a.pdf	Area 3 WWTP DMRs/2025 DMR/part A/nov part a.pdf		Area 3 DMR does not report Received; zero used.	DMR Part A
Dec-25	Area 3	2025	0.000	13.320	0.000	13.320	Complete	Area 3 WWTP DMRs/2025 DMR/part A/dec part a.pdf	Area 3 WWTP DMRs/2025 DMR/part A/dec part a.pdf		Area 3 DMR does not report Received; zero used.	DMR Part A
Jan-26	Area 3	2026	0.000	0.000	0.000	0.000	Complete	Area 3 WWTP DMRs/2026 DMR/jan 2026 part a.pdf	Area 3 WWTP DMRs/2026 DMR/jan 2026 part a.pdf		Area 3 DMR does not report Received; zero used.	DMR Part A
Feb-26	Area 3	2026	0.000	12.370	0.000	12.370	Complete	Area 3 WWTP DMRs/2026 DMR/feb 2026 part a.pdf	Area 3 WWTP DMRs/2026 DMR/feb 2026 part a.pdf		Area 3 DMR does not report Received; zero used.	DMR Part A
Mar-26	Area 3	2026	0.000	4.730	0.000	4.730	Complete	Area 3 WWTP DMRs/2026 DMR/march 2026 part a.pdf	Area 3 WWTP DMRs/2026 DMR/march 2026 part a.pdf		Area 3 DMR does not report Received; zero used.	DMR Part A
Apr-26	Area 3	2026	0.000	11.320	0.000	11.320	Complete	Area 3 WWTP DMRs/2026 DMR/april 2026 part a.pdf	Area 3 WWTP DMRs/2026 DMR/april 2026 part a.pdf		Area 3 DMR does not report Received; zero used.	DMR Part A
May-26	Area 3	2026	0.000	0.000	0.000	0.000	Complete	Area 3 WWTP DMRs/2026 DMR/may 2026 part a.pdf	Area 3 WWTP DMRs/2026 DMR/may 2026 part a.pdf		Area 3 DMR does not report Received; zero used.	DMR Part A
Jun-26	Area 3	2026	0.000	16.500	0.000	16.500	Complete	Area 3 WWTP DMRs/2026 DMR/jun part a.pdf	Area 3 WWTP DMRs/2026 DMR/jun part a.pdf		Area 3 DMR does not report Received; zero used.	DMR Part A
Jan-20	Area 4	2020	15.300	0.000	2.340	12.960	Complete	Area 4 WWTP DMRs/2020 DMRs/part A/jan part a.pdf	Area 4 WWTP DMRs/2020 DMRs/part A/jan part a.pdf	Area 4 WWTP DMRs/2020 DMRs/part A/jan part a.pdf	Plant-month timing can reflect storage/transfer lag.	DMR Part A
Feb-20	Area 4	2020	11.400	0.000	0.000	11.400	Complete	Area 4 WWTP DMRs/2020 DMRs/part A/feb 2020 part A.pdf	Area 4 WWTP DMRs/2020 DMRs/part A/feb 2020 part A.pdf	Area 4 WWTP DMRs/2020 DMRs/part A/feb 2020 part A.pdf	Plant-month timing can reflect storage/transfer lag.	DMR Part A
Mar-20	Area 4	2020	10.120	0.000	0.000	10.120	Complete	Area 4 WWTP DMRs/2020 DMRs/part A/march 2020 part a.pdf	Area 4 WWTP DMRs/2020 DMRs/part A/march 2020 part a.pdf	Area 4 WWTP DMRs/2020 DMRs/part A/march 2020 part a.pdf	Plant-month timing can reflect storage/transfer lag.	DMR Part A
Apr-20	Area 4	2020	5.663	0.000	0.000	5.663	Complete	Area 4 WWTP DMRs/2020 DMRs/part A/april 2020 part a.pdf	Area 4 WWTP DMRs/2020 DMRs/part A/april 2020 part a.pdf	Area 4 WWTP DMRs/2020 DMRs/part A/april 2020 part a.pdf	Plant-month timing can reflect storage/transfer lag.	DMR Part A
May-20	Area 4	2020	10.919	0.000	0.000	10.919	Complete	Area 4 WWTP DMRs/2020 DMRs/part A/May 2020 part a.pdf	Area 4 WWTP DMRs/2020 DMRs/part A/May 2020 part a.pdf	Area 4 WWTP DMRs/2020 DMRs/part A/May 2020 part a.pdf	Plant-month timing can reflect storage/transfer lag.	DMR Part A
Jun-20	Area 4	2020	4.070	0.000	0.000	4.070	Complete	Area 4 WWTP DMRs/2020 DMRs/part A/June 2020 part A.pdf	Area 4 WWTP DMRs/2020 DMRs/part A/June 2020 part A.pdf	Area 4 WWTP DMRs/2020 DMRs/part A/June 2020 part A.pdf	Plant-month timing can reflect storage/transfer lag.	DMR Part A
Jul-20	Area 4	2020	22.010	0.000	5.670	16.340	Complete	Area 4 WWTP DMRs/2020 DMRs/part A/July 2020 part	Area 4 WWTP DMRs/2020 DMRs/part A/July 2020 part	Area 4 WWTP DMRs/2020 DMRs/part A/July 2020 part	Plant-month timing can reflect storage/transfer lag.	DMR Part A
Aug-20	Area 4	2020	15.740	7.340	0.000	23.080	Complete	Area 4 WWTP DMRs/2020 DMRs/part A/Aug 2020 part A.pdf	Area 4 WWTP DMRs/2020 DMRs/part A/Aug 2020 part A.pdf	Area 4 WWTP DMRs/2020 DMRs/part A/Aug 2020 part A.pdf	Plant-month timing can reflect storage/transfer lag.	DMR Part A
Sep-20	Area 4	2020	4.520	0.000	0.000	4.520	Complete	Area 4 WWTP DMRs/2020 DMRs/part A/sept 2020 part A.pdf	Area 4 WWTP DMRs/2020 DMRs/part A/sept 2020 part A.pdf	Area 4 WWTP DMRs/2020 DMRs/part A/sept 2020 part A.pdf	Plant-month timing can reflect storage/transfer lag.	DMR Part A
Oct-20	Area 4	2020	8.550	2.340	3.340	7.550	Complete	Area 4 WWTP DMRs/2020 DMRs/part A/oct part A 2020.pdf	Area 4 WWTP DMRs/2020 DMRs/part A/oct part A 2020.pdf	Area 4 WWTP DMRs/2020 DMRs/part A/oct part A 2020.pdf	Plant-month timing can reflect storage/transfer lag.	DMR Part A
Nov-20	Area 4	2020	0.000	0.000	0.000	0.000	Complete	Area 4 WWTP DMRs/2020 DMRs/part A/nov 2020 part a.pdf	Area 4 WWTP DMRs/2020 DMRs/part A/nov 2020 part a.pdf	Area 4 WWTP DMRs/2020 DMRs/part A/nov 2020 part a.pdf	Plant-month timing can reflect storage/transfer lag.	DMR Part A
Dec-20	Area 4	2020	25.930	1.330	9.670	17.590	Complete	Area 4 WWTP DMRs/2020 DMRs/part A/Dec 2020 part	Area 4 WWTP DMRs/2020 DMRs/part A/Dec 2020 part	Area 4 WWTP DMRs/2020 DMRs/part A/Dec 2020 part	Plant-month timing can reflect storage/transfer lag.	DMR Part A
Jan-21	Area 4	2021	0.000	8.810	0.000	8.810	Complete	Area 4 WWTP DMRs/2021 DMRs/part a/jan 2021 part a.pdf	Area 4 WWTP DMRs/2021 DMRs/part a/jan 2021 part a.pdf	Area 4 WWTP DMRs/2021 DMRs/part a/jan 2021 part a.pdf	Plant-month timing can reflect storage/transfer lag.	DMR Part A
Feb-21	Area 4	2021	18.300	0.000	6.300	12.000	Complete	Area 4 WWTP DMRs/2021 DMRs/part a/feb 2021 part a.pdf	Area 4 WWTP DMRs/2021 DMRs/part a/feb 2021 part a.pdf	Area 4 WWTP DMRs/2021 DMRs/part a/feb 2021 part a.pdf	Plant-month timing can reflect storage/transfer lag.	DMR Part A
Mar-21	Area 4	2021	13.990	0.000	5.160	8.830	Complete	Area 4 WWTP DMRs/2021 DMRs/part a/March 2021 part a.pdf	Area 4 WWTP DMRs/2021 DMRs/part a/March 2021 part a.pdf	Area 4 WWTP DMRs/2021 DMRs/part a/March 2021 part a.pdf	Plant-month timing can reflect storage/transfer lag.	DMR Part A
Apr-21	Area 4	2021	36.179	0.000	23.780	12.399	Complete	Area 4 WWTP DMRs/2021 DMRs/part a/April 2021 part A.pdf	Area 4 WWTP DMRs/2021 DMRs/part a/April 2021 part A.pdf	Area 4 WWTP DMRs/2021 DMRs/part a/April 2

Mar-25	Area 4	2025	36.860	0.000	31.440	5.420	Complete	Area 4 WWTP DMRs/2025 dmrs/part A/march part a 2025.pdf	Area 4 WWTP DMRs/2025 dmrs/part A/march part a 2025.pdf	Area 4 WWTP DMRs/2025 dmrs/part A/march part a 2025.pdf	Plant-month timing can reflect storage/transfer lag.	DMR Part A
Apr-25	Area 4	2025	41.060	0.000	16.560	24.500	Complete	Area 4 WWTP DMRs/2025 dmrs/part A/april part a 2025.pdf	Area 4 WWTP DMRs/2025 dmrs/part A/april part a 2025.pdf	Area 4 WWTP DMRs/2025 dmrs/part A/april part a 2025.pdf	Plant-month timing can reflect storage/transfer lag.	DMR Part A
May-25	Area 4	2025	0.000	0.000	6.810	-6.810	Complete	Area 4 WWTP DMRs/2025 dmrs/part A/May 2025 part a.pdf	Area 4 WWTP DMRs/2025 dmrs/part A/May 2025 part a.pdf	Area 4 WWTP DMRs/2025 dmrs/part A/May 2025 part a.pdf	Plant-month timing can reflect storage/transfer lag.	DMR Part A
Jun-25	Area 4	2025	66.500	0.000	35.040	31.460	Complete	Area 4 WWTP DMRs/2025 dmrs/part A/june 2025 part a.pdf	Area 4 WWTP DMRs/2025 dmrs/part A/june 2025 part a.pdf	Area 4 WWTP DMRs/2025 dmrs/part A/june 2025 part a.pdf	Plant-month timing can reflect storage/transfer lag.	DMR Part A
Jul-25	Area 4	2025	0.000	0.000	0.000	0.000	Complete	Area 4 WWTP DMRs/2025 dmrs/part A/july 2025 part a.pdf	Area 4 WWTP DMRs/2025 dmrs/part A/july 2025 part a.pdf	Area 4 WWTP DMRs/2025 dmrs/part A/july 2025 part a.pdf	Plant-month timing can reflect storage/transfer lag.	DMR Part A
Aug-25	Area 4	2025	55.370	0.000	31.190	24.180	Complete	Area 4 WWTP DMRs/2025 dmrs/part A/august 2025 part a.pdf	Area 4 WWTP DMRs/2025 dmrs/part A/august 2025 part a.pdf	Area 4 WWTP DMRs/2025 dmrs/part A/august 2025 part a.pdf	Plant-month timing can reflect storage/transfer lag.	DMR Part A
Sep-25	Area 4	2025	19.640	0.000	0.000	19.640	Complete	Area 4 WWTP DMRs/2025 dmrs/part A/sept 2025 part a.pdf	Area 4 WWTP DMRs/2025 dmrs/part A/sept 2025 part a.pdf	Area 4 WWTP DMRs/2025 dmrs/part A/sept 2025 part a.pdf	Plant-month timing can reflect storage/transfer lag.	DMR Part A
Oct-25	Area 4	2025	51.190	0.000	33.070	18.120	Complete	Area 4 WWTP DMRs/2025 dmrs/part A/oct 2025.pdf	Area 4 WWTP DMRs/2025 dmrs/part A/oct 2025.pdf	Area 4 WWTP DMRs/2025 dmrs/part A/oct 2025.pdf	Plant-month timing can reflect storage/transfer lag.	DMR Part A
Nov-25	Area 4	2025	0.000	0.000	0.000	0.000	Complete	Area 4 WWTP DMRs/2025 dmrs/part A/nov 2025 part a.pdf	Area 4 WWTP DMRs/2025 dmrs/part A/nov 2025 part a.pdf	Area 4 WWTP DMRs/2025 dmrs/part A/nov 2025 part a.pdf	Plant-month timing can reflect storage/transfer lag.	DMR Part A
Dec-25	Area 4	2025	44.880	0.000	45.180	-0.300	Complete	Area 4 WWTP DMRs/2025 dmrs/part A/dec 2025 part a.pdf	Area 4 WWTP DMRs/2025 dmrs/part A/dec 2025 part a.pdf	Area 4 WWTP DMRs/2025 dmrs/part A/dec 2025 part a.pdf	Plant-month timing can reflect storage/transfer lag.	DMR Part A
Jan-26	Area 4	2026	5.300	0.000	2.530	2.770	Complete	Area 4 WWTP DMRs/2026 dmrs/jan 2026 part a.pdf	Area 4 WWTP DMRs/2026 dmrs/jan 2026 part a.pdf	Area 4 WWTP DMRs/2026 dmrs/jan 2026 part a.pdf	Plant-month timing can reflect storage/transfer lag.	DMR Part A
Feb-26	Area 4	2026	42.120	0.000	23.900	18.220	Complete	Area 4 WWTP DMRs/2026 dmrs/feb 2026 part a.pdf	Area 4 WWTP DMRs/2026 dmrs/feb 2026 part a.pdf	Area 4 WWTP DMRs/2026 dmrs/feb 2026 part a.pdf	Plant-month timing can reflect storage/transfer lag.	DMR Part A
Mar-26	Area 4	2026	37.380	0.000	17.160	20.220	Complete	Area 4 WWTP DMRs/2026 dmrs/march 2026 part a.pdf	Area 4 WWTP DMRs/2026 dmrs/march 2026 part a.pdf	Area 4 WWTP DMRs/2026 dmrs/march 2026 part a.pdf	Plant-month timing can reflect storage/transfer lag.	DMR Part A
Apr-26	Area 4	2026	16.350	0.000	16.760	-0.410	Complete	Area 4 WWTP DMRs/2026 dmrs/april 2026 part a.pdf	Area 4 WWTP DMRs/2026 dmrs/april 2026 part a.pdf	Area 4 WWTP DMRs/2026 dmrs/april 2026 part a.pdf	Plant-month timing can reflect storage/transfer lag.	DMR Part A
May-26	Area 4	2026	0.000	0.000	0.000	0.000	Complete	Area 4 WWTP DMRs/2026 dmrs/may 2026 part a.pdf	Area 4 WWTP DMRs/2026 dmrs/may 2026 part a.pdf	Area 4 WWTP DMRs/2026 dmrs/may 2026 part a.pdf	Plant-month timing can reflect storage/transfer lag.	DMR Part A
Jun-26	Area 4	2026	93.900	0.000	64.900	29.000	Complete	Area 4 WWTP DMRs/2026 dmrs/jun 2026 part a.pdf	Area 4 WWTP DMRs/2026 dmrs/jun 2026 part a.pdf	Area 4 WWTP DMRs/2026 dmrs/jun 2026 part a.pdf	Plant-month timing can reflect storage/transfer lag.	DMR Part A
Jan-19	Area 5	2019	0.000	2.930	0.000	2.930	Complete	Area 5 WWTP DMRs/2019/jan part a too.pdf	Area 5 WWTP DMRs/2019/jan part a too.pdf	Area 5 WWTP DMRs/2019/jan part a too.pdf	Plant-month timing can reflect storage/transfer lag.	DMR Part A
Feb-19	Area 5	2019	0.000	11.730	0.000	11.730	Complete	Area 5 WWTP DMRs/2019/feb part a.pdf	Area 5 WWTP DMRs/2019/feb part a.pdf	Area 5 WWTP DMRs/2019/feb part a.pdf	Plant-month timing can reflect storage/transfer lag.	DMR Part A
Mar-19	Area 5	2019	0.000	6.370	0.000	6.370	Complete	Area 5 WWTP DMRs/2019/march part a.pdf	Area 5 WWTP DMRs/2019/march part a.pdf	Area 5 WWTP DMRs/2019/march part a.pdf	Plant-month timing can reflect storage/transfer lag.	DMR Part A
Apr-19	Area 5	2019	0.000	5.360	0.000	5.360	Complete	Area 5 WWTP DMRs/2019/april part a.pdf	Area 5 WWTP DMRs/2019/april part a.pdf	Area 5 WWTP DMRs/2019/april part a.pdf	Plant-month timing can reflect storage/transfer lag.	DMR Part A
May-19	Area 5	2019	0.000	1.560	0.000	1.560	Complete	Area 5 WWTP DMRs/2019/may part a.pdf	Area 5 WWTP DMRs/2019/may part a.pdf	Area 5 WWTP DMRs/2019/may part a.pdf	Plant-month timing can reflect storage/transfer lag.	DMR Part A
Jun-19	Area 5	2019	0.000	21.790	0.000	21.790	Complete	Area 5 WWTP DMRs/2019/june part a.pdf	Area 5 WWTP DMRs/2019/june part a.pdf	Area 5 WWTP DMRs/2019/june part a.pdf	Plant-month timing can reflect storage/transfer lag.	DMR Part A
Jul-19	Area 5	2019	0.000	10.840	0.000	10.840	Complete	Area 5 WWTP DMRs/2019/july part a.pdf	Area 5 WWTP DMRs/2019/july part a.pdf	Area 5 WWTP DMRs/2019/july part a.pdf	Plant-month timing can reflect storage/transfer lag.	DMR Part A
Aug-19	Area 5	2019	0.000	2.840	0.000	2.840	Complete	Area 5 WWTP DMRs/2019/aug part a.pdf	Area 5 WWTP DMRs/2019/aug part a.pdf	Area 5 WWTP DMRs/2019/aug part a.pdf	Plant-month timing can reflect storage/transfer lag.	DMR Part A
Sep-19	Area 5	2019	0.000	2.630	0.000	2.630	Complete	Area 5 WWTP DMRs/2019/sept part a.pdf	Area 5 WWTP DMRs/2019/sept part a.pdf	Area 5 WWTP DMRs/2019/sept part a.pdf	Plant-month timing can reflect storage/transfer lag.	DMR Part A
Oct-19	Area 5	2019	2.390	10.000	0.000	12.390	Complete	Area 5 WWTP DMRs/2019/oct part a.pdf	Area 5 WWTP DMRs/2019/oct part a.pdf	Area 5 WWTP DMRs/2019/oct part a.pdf	Plant-month timing can reflect storage/transfer lag.	DMR Part A
Nov-19	Area 5	2019	0.000	7.650	0.000	7.650	Complete	Area 5 WWTP DMRs/2019/nov part a.pdf	Area 5 WWTP DMRs/2019/nov part a.pdf	Area 5 WWTP DMRs/2019/nov part a.pdf	Plant-month timing can reflect storage/transfer lag.	DMR Part A
Dec-19	Area 5	2019	0.000	3.560	0.000	3.560	Complete	Area 5 WWTP DMRs/2019/dec part a.pdf	Area 5 WWTP DMRs/2019/dec part a.pdf	Area 5 WWTP DMRs/2019/dec part a.pdf	Plant-month timing can reflect storage/transfer lag.	DMR Part A
Jan-20	Area 5	2020	0.000	8.100	0.000	8.100	Complete	Area 5 WWTP DMRs/2020/part A/jan part a.pdf	Area 5 WWTP DMRs/2020/part A/jan part a.pdf	Area 5 WWTP DMRs/2020/part A/jan part a.pdf	Plant-month timing can reflect storage/transfer lag.	DMR Part A
Feb-20	Area 5	2020	0.000	5.270	0.000	5.270	Complete	Area 5 WWTP DMRs/2020/part A/feb part a.pdf	Area 5 WWTP DMRs/2020/part A/feb part a.pdf	Area 5 WWTP DMRs/2020/part A/feb part a.pdf	Plant-month timing can reflect storage/transfer lag.	DMR Part A
Mar-20	Area 5	2020	0.000	9.610	0.000	9.610	Complete	Area 5 WWTP DMRs/2020/part A/march part a.pdf	Area 5 WWTP DMRs/2020/part A/march part a.pdf	Area 5 WWTP DMRs/2020/part A/march part a.pdf	Plant-month timing can reflect storage/transfer lag.	DMR Part A
Apr-20	Area 5	2020	0.000	6.230	0.000	6.230	Complete	Area 5 WWTP DMRs/2020/part A/april part a.pdf	Area 5 WWTP DMRs/2020/part A/april part a.pdf	Area 5 WWTP DMRs/2020/part A/april part a.pdf	Plant-month timing can reflect storage/transfer lag.	DMR Part A
May-20	Area 5	2020	0.000	15.730	0.000	15.730	Complete	Area 5 WWTP DMRs/2020/part A/may part a.pdf	Area 5 WWTP DMRs/2020/part A/may part a.pdf	Area 5 WWTP DMRs/2020/part A/may part a.pdf	Plant-month timing can reflect storage/transfer lag.	DMR Part A
Jun-20	Area 5	2020	0.000	0.000	0.000	0.000	Complete	Area 5 WWTP DMRs/2020/part A/june part a.pdf	Area 5 WWTP DMRs/2020/part A/june part a.pdf	Area 5 WWTP DMRs/2020/part A/june part a.pdf	Plant-month timing can reflect storage/transfer lag.	DMR Part A
Jul-20	Area 5	2020	0.000	14.750	0.000	14.750	Complete	Area 5 WWTP DMRs/2020/part A/july part a.pdf	Area 5 WWTP DMRs/2020/part A/july part a.pdf	Area 5 WWTP DMRs/2020/part A/july part a.pdf	Plant-month timing can reflect storage/transfer lag.	DMR Part A
Aug-20	Area 5	2020	0.000	13.930	0.000	13.930	Complete	Area 5 WWTP DMRs/2020/part A/aug part a.pdf	Area 5 WWTP DMRs/2020/part A/aug part a.pdf	Area 5 WWTP DMRs/2020/part A/aug part a.pdf	Plant-month timing can reflect storage/transfer lag.	DMR Part A
Sep-20	Area 5	2020	0.000	13.930	0.000	13.930	Complete	Area 5 WWTP DMRs/2020/part A/sept part a.pdf	Area 5 WWTP DMRs/2020/part A/sept part a.pdf	Area 5 WWTP DMRs/2020/part A/sept part a.pdf	Plant-month timing can reflect storage/transfer lag.	DMR Part A
Oct-20	Area 5	2020	0.000	9.570	0.000	9.570	Complete	Area 5 WWTP DMRs/2020/part A/oct part a.pdf	Area 5 WWTP DMRs/2020/part A/oct part a.pdf	Area 5 WWTP DMRs/2020/part A/oct part a.pdf	Plant-month timing can reflect storage/transfer lag.	DMR Part A
Nov-20	Area 5	2020	0.000	2.260	0.000	2.260	Complete	Area 5 WWTP DMRs/2020/part A/nov part a.pdf	Area 5 WWTP DMRs/2020/part A/nov part a.pdf	Area 5 WWTP DMRs/2020/part A/nov part a.pdf	Plant-month timing can reflect storage/transfer lag.	DMR Part A
Dec-20	Area 5	2020	0.000	13.880	0.000	13.880	Complete	Area 5 WWTP DMRs/2020/part A/dec part a.pdf	Area 5 WWTP DMRs/2020/part A/dec part a.pdf	Area 5 WWTP DMRs/2020/part A/dec part a.pdf	Plant-month timing can reflect storage/transfer lag.	DMR Part A
Jan-21	Area 5	2021	0.000	7.880	0.000	7.880	Complete	Area 5 WWTP DMRs/2021/part A/jan part a.pdf	Area 5 WWTP DMRs/2021/part A/jan part a.pdf	Area 5 WWTP DMRs/2021/part A/jan part a.pdf	Plant-month timing can reflect storage/transfer lag.	DMR Part A
Feb-21	Area 5	2021	0.000	12.520	0.000	12.520	Complete	Area 5 WWTP DMRs/2021/part A/feb part a.pdf	Area 5 WWTP DMRs/2021/part A/feb part a.pdf	Area 5 WWTP DMRs/2021/part A/feb part a.pdf	Plant-month timing can reflect storage/transfer lag.	DMR Part A
Mar-21	Area 5	2021					Missing DMR parameter/month				Plant-month timing can reflect storage/transfer lag.	DMR Part A
Apr-21	Area 5	2021					Missing DMR parameter/month				Plant-month timing can reflect storage/transfer lag.	DMR Part A
May-21	Area 5	2021	0.000	9.340	0.000	9.340	Complete	Area 5 WWTP DMRs/2021/part A/may part a.pdf	Area 5 WWTP DMRs/2021/part A/may part a.pdf	Area 5 WWTP DMRs/2021/part A/may part a.pdf	Plant-month timing can reflect storage/transfer lag.	DMR Part A
Jun-21	Area 5	2021	0.000	4.680	0.000	4.680	Complete	Area 5 WWTP DMRs/2021/part A/june part a.pdf	Area 5 WWTP DMRs/2021/part A/june part a.pdf	Area 5 WWTP DMRs/2021/part A/june part a.pdf	Plant-month timing can reflect storage/transfer lag.	DMR Part A
Jul-21	Area 5	2021	0.000	23.240	0.000	23.240	Complete	Area 5 WWTP DMRs/2021/part A/july part a.pdf	Area 5 WWTP DMRs/2021/part A/july part a.pdf	Area 5 WWTP DMRs/2021/part A/july part a.pdf	Plant-month timing can reflect storage/transfer lag.	DMR Part A
Aug-21	Area 5	2021	0.000	16.040	0.000	16.040	Complete	Area 5 WWTP DMRs/2021/part A/aug part a.pdf	Area 5 WWTP DMRs/2021/part A/aug part a.pdf	Area 5 WWTP DMRs/2021/part A/aug part a.pdf	Plant-month timing can reflect storage/transfer lag.	DMR Part A
Sep-21	Area 5	2021	0.000	3.600	0.000	3.600	Complete	Area 5 WWTP DMRs/2021/part A/sept part a.pdf	Area 5 WWTP DMRs/2021/part A/sept part a.pdf	Area 5 WWTP DMRs/2021/part A/sept part a.pdf	Plant-month timing can reflect storage/transfer lag.	DMR Part A
Oct-21	Area 5	2021	0.000	25.850	0.000	25.850	Complete	Area 5 WWTP DMRs/2021/part A/oct part a.pdf	Area 5 WWTP DMRs/2021/part A/oct part a.pdf	Area 5 WWTP DMRs/2021/part A/oct part a.pdf	Plant-month timing can reflect storage/transfer lag.	DMR Part A
Nov-21	Area 5	2021	0.000	4.120	0.000	4.120	Complete	Area 5 WWTP DMRs/2021/part A/nov part a.pdf	Area 5 WWTP DMRs/2021/part A/nov part a.pdf	Area 5 WWTP DMRs/2021/part A/nov part a.pdf	Plant-month timing can reflect storage/transfer lag.	DMR Part A
Dec-21	Area 5	2021	0.000	11.980	0.000	11.980	Complete	Area 5 WWTP DMRs/2021/part A/dec part a.pdf	Area 5 WWTP DMRs/2021/part A/dec part a.pdf	Area 5 WWTP DMRs/2021/part A/dec part a.pdf	Plant-month timing can reflect storage/transfer lag.	DMR Part A
Jan-22	Area 5	2022	0.000	7.740	0.000	7.740	Complete	Area 5 WWTP DMRs/2022/part A/jan part a.pdf	Area 5 WWTP DMRs/2022/part A/jan part a.pdf	Area 5 WWTP DMRs/2022/part A/jan part a.pdf	Plant-month timing can reflect storage/transfer lag.	DMR Part A
Feb-22	Area 5	2022	0.000	0.000	0.000	0.000	Complete	Area 5 WWTP DMRs/2022/part A/feb part a.pdf	Area 5 WWTP DMRs/2022/part A/feb part a.pdf	Area 5 WWTP DMRs/2022/part A/feb part a.pdf	Plant-month timing can reflect storage/transfer lag.	DMR Part A
Mar-22	Area 5	2022	0.000	21.700	0.000	21.700	Complete	Area 5 WWTP DMRs/2022/part A/march part a.pdf	Area 5 WWTP DMRs/2022/part A/march part a.pdf	Area 5 WWTP DMRs/2022/part A/march part a.pdf	Plant-month timing can reflect storage/transfer lag.	DMR Part A
Apr-22	Area 5	2022	0.000	18.470	0.000	18.470	Complete	Area 5 WWTP DMRs/2022/part A/april part a.pdf	Area 5 WWTP DMRs/2022/part A/april part a.pdf	Area 5 WWTP DMRs/2022/part A/april part a.pdf	Plant-month timing can reflect storage/transfer lag.	DMR Part A
May-22	Area 5	2022	0.000	0.000	0.000	0.000	Complete	Area 5 WWTP DMRs/2022/part A/may part a.pdf	Area 5 WWTP DMRs/2022/part A/may part a.pdf	Area 5 WWTP DMRs/2022/part A/may part a.pdf	Plant-month timing can reflect storage/transfer lag.	DMR Part A
Jun-22	Area 5	2022	0.000	20.170	0.000	20.170	Complete	Area 5 WWTP DMRs/2022/part A/june part A.pdf	Area 5 WWTP DMRs/2022/part A/june part A.pdf	Area 5 WWTP DMRs/2022/part A/june part A.pdf	Plant-month timing can reflect storage/transfer lag.	DMR Part A
Jul-22	Area 5	2022	0.000	0.000	0.000	0.000	Complete	Area 5 WWTP DMRs/2022/part A/july part A.pdf	Area 5 WWTP DMRs/2022/part A/july part A.pdf	Area 5 WWTP DMRs/2022/part A/july part A.pdf	Plant-month timing can reflect storage/transfer lag.	DMR Part A
Aug-22	Area 5	2022	0.000	15.180	0.000	15.180	Complete	Area 5 WWTP DMRs/2022/part A/Aug part A.pdf	Area 5 WWTP DMRs/2022/part A/Aug part A.pdf	Area 5 WWTP DMRs/2022/part A/Aug part A.pdf	Plant-month timing can reflect storage/transfer lag.	DMR Part A
Sep-22	Area 5	2022	0.000	2.500	0.000	2.500	Complete	Area 5 WWTP DMRs/2022/part A/Sept part A.pdf	Area 5 WWTP DMRs/2022/part A/Sept part A.pdf	Area 5 WWTP DMRs/2022/part A/Sept part A.pdf	Plant-month timing can reflect storage/transfer lag.	DMR Part A
Oct-22	Area 5	2022	0.000	15.360	0.000	15.360	Complete	Area 5 WWTP DMRs/2022/part A/October part A too.pdf	Area 5 WWTP DMRs/2022/part A/October part A too.pdf	Area 5 WWTP DMRs/2022/part A/October part A too.pdf	Plant-month timing can reflect storage/transfer lag.	DMR Part A
Nov-22	Area 5	2022	0.000	0.000	0.000	0.000	Complete	Area 5 WWTP DMRs/2022/part A/November part A.pdf	Area 5 WWTP DMRs/2022/part A/November part A.pdf	Area 5 WWTP DMRs/2022/part A/November part A.pdf	Plant-month timing can reflect storage/transfer lag.	DMR Part A
Dec-22	Area 5	2022	0.000	8.710	0.000	8.710	Complete	Area 5 WWTP DMRs/2022/part A/December part A.pdf	Area 5 WWTP DMRs/2022/part A/December part A.pdf	Area 5 WWTP DMRs/2022/part A/December part A.pdf	Plant-month timing can reflect storage/transfer lag.	DMR Part A
Jan-23	Area 5	2023	0.000	28.710	0.000	28.710	Complete	Area 5 WWTP DMRs/2023/part A/Jan part A.pdf	Area 5 WWTP DMRs/2023/part A/Jan part A.pdf	Area 5 WWTP DMRs/2023/part A/Jan part A.pdf	Plant-month timing can reflect storage/transfer lag.	DMR Part A
Feb-23	Area 5	2023	0.000	0.000	0.000	0.000	Complete	Area 5 WWTP DMRs/2023/part A/Feb part A.pdf	Area 5 WWTP DMRs/2023/part A/Feb part A.pdf	Area 5 WWTP DMRs/2023/part A/Feb part A.pdf	Plant-month timing can reflect storage/transfer lag.	DMR Part A
Mar-23	Area 5	2023	0.000	21.760	0.000	21.760	Complete	Area 5 WWTP DMRs/2023/part A/March part A.pdf	Area 5 WWTP DMRs/2023/part A/March part A.pdf	Area 5 WWTP DMRs/2023/part A/March part A.pdf	Plant-month timing can reflect storage/transfer lag.	DMR Part A
Apr-23	Area 5	2023	0.000	0.000	0.000	0.000	Complete	Area 5 WWTP DMRs/2023/part A/April part A.pdf	Area 5 WWTP DMRs/2023/part A/April part A.pdf	Area 5 WWTP DMRs/2023/part A/April part A.pdf	Plant-month timing can reflect storage/transfer lag.	DMR Part A
May-23	Area 5	2023	0.000	22.500	0.000	22.500	Complete	Area 5 WWTP DMRs/2023/part A/May part A.pdf	Area 5 WWTP DMRs/2023/part A/May part A.pdf	Area 5 WWTP DMRs/2023/part A/May part A.pdf	Plant-month timing can reflect storage/transfer lag.	DMR Part A
Jun-23	Area 5	2023	0.000	0.000	0.000	0.000	Complete	Area 5 WWTP DMRs/2023/part A/June part A.pdf	Area 5 WWTP DMRs/2023/part A/June part A.pdf	Area 5 WWTP DMRs/2023/part A/June part A.pdf	Plant-month timing can reflect storage/transfer lag.	DMR Part A
Jul-23	Area 5	2023	0.000	19.450	0.000	19.450	Complete	Area 5 WWTP DMRs/2023/part A/July part A.pdf	Area 5 WWTP DMRs/2023/part A/July part A.pdf	Area 5 WWTP DMRs/2023/part A/July part A.pdf	Plant-month timing can reflect storage/transfer lag.	DMR Part A
Aug-23	Area 5	2023	0.000	9.660	0.000	9.660	Complete	Area 5 WWTP DMRs/2023/part A/Aug part A.pdf	Area 5 WWTP DMRs/2023/part A/Aug part A.pdf	Area 5 WWTP DMRs/2023/part A/Aug part A.pdf	Plant-month timing can reflect storage/transfer lag.	DMR Part A
Sep-23	Area 5	2023	0.000	16.500	0.000	16.500	Complete	Area 5 WWTP DMRs/2023/part A/Sept part A.pdf	Area 5 WWTP DMRs/2023/part A/Sept part A.pdf	Area 5 WWTP DMRs/2023/part A/Sept part A.pdf	Plant-month timing can reflect storage/transfer lag.	DMR Part A
Oct-23	Area 5	2023	0.000	0.000	0.000	0.000	Complete	Area 5 WWTP DMRs/2023/part A/Oct part A.pdf	Area 5 WWTP DMRs/2023/part A/Oct part A.pdf	Area 5 WWTP DMRs/2023/part A/Oct part A.pdf	Plant-month timing can reflect storage/transfer lag.	DMR Part A
Nov-23	Area 5	2023	0.000	13.650	0.000	13.650	Complete	Area 5 WWTP DMRs/2023/part A/Nov part A.pdf	Area 5 WWTP DMRs/2023/part A/Nov part A.pdf	Area 5 WWTP DMRs/2023/part A/Nov part A.pdf	Plant-month timing can reflect storage/transfer lag.	DMR Part A
Dec-23	Area 5	2023	0.000	0.000	0.000	0.000	Complete	Area 5 WWTP DMRs/2023/part A/Dec part A.pdf	Area 5 WWTP DMRs/2023/part A/Dec part A.pdf	Area 5 WWTP DMRs/2023/part A/Dec part A.pdf	Plant-month timing can reflect storage/transfer lag.	DMR Part A
Jan-24	Area 5	2024	0.000	17.470	0.000	17.470	Complete	Area 5 WWTP DMRs/2024/part A/Jan 2024 part a.pdf	Area 5 WWTP DMRs/2024/part A/Jan 2024 part a.pdf	Area 5 WWTP DMRs/2024/part A/Jan 2024 part a.pdf	Plant-month timing can reflect storage/transfer lag.	DMR Part A
Feb-24	Area 5	2024	0.000	4.030	0.000	4.030	Complete	Area 5 WWTP DMRs/2024/part A/Feb 2024 part a.pdf	Area 5 WWTP DMRs/2024/part A/Feb 2024 part a.pdf	Area 5 WWTP DMRs/2024/part A/Feb 2024 part a.pdf	Plant-month timing can reflect storage/transfer lag.	DMR Part A
Mar-24	Area 5	2024	0.000	12.330	0.000	12.330	Complete	Area 5 WWTP DMRs/2024/part A/March 2024 part A.pdf	Area 5 WWTP DMRs/2024/part A/March 2024 part A.pdf	Area 5 WWTP DMRs/2024/part A/March 2024 part A.pdf	Plant-month timing can reflect storage/transfer lag.	DMR Part A
Apr-24	Area 5	2024	0.000	3.020	0.000	3.020	Complete	Area 5 WWTP DMRs/2024/part A/April 2024 part a.pdf	Area 5 WWTP DMRs/2024/part A/April 2024 part a.pdf	Area 5 WWTP DMRs/2024/part A/April 2024 part a.pdf	Plant-month timing can reflect storage/transfer lag.	DMR Part A
May-24	Area 5	2024	0.000	21.710	0.000	21.710	Complete	Area 5 WWTP DMRs/2024/part A/May 2024 part a.pdf	Area 5 WWTP DMRs/2024/part A/May 2024 part a.pdf	Area 5 WWTP DMRs/2024/part A/May 2024 part a.pdf	Plant-month timing can reflect storage/transfer lag.	DMR Part A
Jun-24	Area 5	2024	0.000	4.440	0.000	4.440	Complete	Area 5 WWTP DMRs/2024/part A/June 2024 part a.pdf	Area 5 WWTP DMRs/2024/part A/June 2024 part a.pdf	Area 5 WWTP DMRs/2024/part A/June 2024 part a.pdf	Plant-month timing can reflect storage/transfer lag.	DMR Part A
Jul-24	Area 5	2024	0.000	25.130	0.000	25.130	Complete	Area 5 WWTP DMRs/2024/part A/July 2024 part A.pdf	Area 5 WWTP DMRs/2024/part A/July 2024 part A.pdf	Area 5 WWTP DMRs/2024/part A/July 2024 part A.pdf	Plant-month timing can reflect storage/transfer lag.	DMR Part A
Aug-24	Area 5	2024	0.000	0.000	0.000	0.000	Complete	Area 5 WWTP DMRs/2024/part A/Aug 2024 part a.pdf	Area 5 WWTP DMRs/2024/part A/Aug 2024 part a.pdf	Area 5 WWTP DMRs/2024/part A/Aug 2024 part a.pdf	Plant-month timing can reflect storage/transfer lag.	DMR Part A
Sep-24	Area 5	2024	0.000	18.540	0.000	18.540	Complete	Area 5 WWTP DMRs/2024/part A/Sept 2024 part a.pdf	Area 5 WWTP DMRs/2024/part A/Sept 2024 part a.pdf	Area 5 WWTP DMRs/2024/part A/Sept 2024 part a.pdf	Plant-month timing can reflect storage/transfer lag.	DMR Part A
Oct-24	Area 5	2024	0.000	0.000	0.000	0.000	Complete	Area 5 WWTP DMRs/2024/part A/October 2024 part A.pdf	Area 5 WWTP DMRs/2024/part A/October 2024 part A.pdf	Area 5 WWTP DMRs/2024/part A/October 2024 part A.pdf	Plant-month timing can reflect storage/transfer lag.	DMR Part A
Nov-24	Area 5	2024	0.000	0.000	0.000	0.000	Complete	Area 5 WWTP DMRs/2024/part A/November 2024 part A.pdf	Area 5 WWTP DMRs/2024/part A/November 2024 part A.pdf	Area 5 WWTP DMRs/2024/part A/November 2024 part A.pdf	Plant-month timing can reflect storage/transfer lag.	DMR Part A
Dec-24	Area 5	2024	0.000	17.640	0.000	17.640	Complete	Area 5 WWTP DMRs/2024/part A/December 2024 part a.pdf	Area 5 WWTP DMRs/2024/part A/December 2024 part a.pdf	Area 5 WWTP DMRs/2024/part A/December 2024 part a.pdf	Plant-month timing can reflect storage/transfer lag.	DMR Part A
Jan-25	Area 5	2025	0.000	20.150	0.000	20.150	Complete	Area 5 WWTP DMRs/2025/part a/jan 2025 part a.pdf	Area 5 WWTP DMRs/2025/part a/jan 2025 part a.pdf	Area 5 WWTP DMRs/2025/part a/jan 2025 part a.pdf	Plant-month timing can reflect storage/transfer lag.	DMR Part A
Feb-25	Area 5	2025	0.000	0.000	0.000	0.000	Complete	Area 5 WWTP DMRs/2025/part a/feb 2025 part a.pdf	Area 5 WWTP DMRs/2025/part a/feb 2025 part a.pdf	Area 5 WWTP DMRs/2025/part a/feb 2025 part a.pdf	Plant-month timing can reflect storage/transfer lag.	DMR Part A
Mar-25	Area 5	2025	0.000	18.170	0.000	18.170	Complete	Area 5 WWTP DMRs/2025/part a/march 2025 part a.pdf	Area 5 WWTP DMRs/2025/part a/march 2025 part a.pdf	Area 5 WWTP DMRs/2025/part a/march 2025 part a.pdf	Plant-month timing can reflect storage/transfer lag.	DMR Part A
Apr-25	Area 5	2025	0.000	0.000	0.000	0.000	Complete	Area 5 WWTP DMRs/2025/part a/april 2025 part a.pdf	Area 5 WWTP DMRs/2025/part a/april 2025 part a.pdf	Area 5 WWTP DMRs/2025/part a/april 2025 part a.pdf	Plant-month timing can reflect storage/transfer lag.	DMR Part A
May-25	Area 5	2025	0.000	0.000	0.000	0.000	Complete	Area 5 WWTP DMRs/2025/part a/may 2025 part a.pdf	Area 5 WWTP DMRs/2025/part a/may 2025 part a.pdf	Area 5 WWTP DMRs/2025/part a/may 2025 part a.pdf	Plant-month timing can reflect storage/transfer lag.	DMR Part A
Jun-25	Area 5	2025	0.000	11.210	0.000	11.210	Complete	Area 5 WWTP DMRs/2025/part a/june 2025 part a.pdf	Area 5 WWTP DMRs/2025/part a/june 2025 part a.pdf	Area 5 WWTP DMRs/2025/part a/june 2025 part a.pdf	Plant-month timing can reflect storage/transfer lag.	DMR Part A
Jul-25	Area 5	2025	0.000	0.000	0.000	0.000	Complete	Area 5 WWTP DMRs/2025/part a/july 2025 part a dmr.pdf	Area 5 WWTP DMRs/2025/part a/july 2025 part a dmr.pdf	Area 5 WWTP DMRs/2025/part a/july 2025 part a dmr.pdf	Plant-month timing can reflect storage/transfer lag.	DMR Part A
Aug-25	Area 5	2025	0.000	18.240	0.000	18.240	Complete	Area 5 WWTP DMRs/2025/part a/aug 2025 part a dmr.pdf	Area 5 WWTP DMRs/2025/part a/aug 2025 part a dmr.pdf	Area 5 WWTP DMRs/2025/part a/aug 2025 part a dmr.pdf	Plant-month timing can reflect storage/transfer lag.	DMR Part A
Sep-25	Area 5	2025	0.000	0.000	0.000	0.000	Complete	Area 5 WWTP DMRs/2025/part a/sept 2025 part a dmr.pdf	Area 5 WWTP DMRs/2025/part a/sept

Oct-20	Area 7 2020	0.000	2.610	0.000	2.610	Complete	Area 7 WWTP DMRs/2020 DMRs/part A/Oct part a.pdf	Area 7 WWTP DMRs/2020 DMRs/part A/Oct part a.pdf	Area 7 WWTP DMRs/2020 DMRs/part A/Oct part a.pdf	Plant-month timing can reflect storage/transfer lag.	DMR Part A
Nov-20	Area 7 2020	0.000	0.000	0.000	0.000	Complete	Area 7 WWTP DMRs/2020 DMRs/part A/Nov part a.pdf	Area 7 WWTP DMRs/2020 DMRs/part A/Nov part a.pdf	Area 7 WWTP DMRs/2020 DMRs/part A/Nov part a.pdf	Plant-month timing can reflect storage/transfer lag.	DMR Part A
Dec-20	Area 7 2020	0.000	0.000	0.000	0.000	Complete	Area 7 WWTP DMRs/2020 DMRs/part A/Dec part a.pdf	Area 7 WWTP DMRs/2020 DMRs/part A/Dec part a.pdf	Area 7 WWTP DMRs/2020 DMRs/part A/Dec part a.pdf	Plant-month timing can reflect storage/transfer lag.	DMR Part A
Jan-21	Area 7 2021	0.000	0.970	0.000	0.970	Complete	Area 7 WWTP DMRs/2021 DMRs/part A/jan part a.pdf	Area 7 WWTP DMRs/2021 DMRs/part A/jan part a.pdf	Area 7 WWTP DMRs/2021 DMRs/part A/jan part a.pdf	Plant-month timing can reflect storage/transfer lag.	DMR Part A
Feb-21	Area 7 2021	0.000	0.000	0.000	0.000	Complete	Area 7 WWTP DMRs/2021 DMRs/part A/Feb part a.pdf	Area 7 WWTP DMRs/2021 DMRs/part A/Feb part a.pdf	Area 7 WWTP DMRs/2021 DMRs/part A/Feb part a.pdf	Plant-month timing can reflect storage/transfer lag.	DMR Part A
Mar-21	Area 7 2021	0.000	1.410	0.000	1.410	Complete	Area 7 WWTP DMRs/2021 DMRs/part A/March part a.pdf	Area 7 WWTP DMRs/2021 DMRs/part A/March part a.pdf	Area 7 WWTP DMRs/2021 DMRs/part A/March part a.pdf	Plant-month timing can reflect storage/transfer lag.	DMR Part A
Apr-21	Area 7 2021	0.000	3.810	0.000	3.810	Complete	Area 7 WWTP DMRs/2021 DMRs/part A/April part a.pdf	Area 7 WWTP DMRs/2021 DMRs/part A/April part a.pdf	Area 7 WWTP DMRs/2021 DMRs/part A/April part a.pdf	Plant-month timing can reflect storage/transfer lag.	DMR Part A
May-21	Area 7 2021	0.000	0.000	0.000	0.000	Complete	Area 7 WWTP DMRs/2021 DMRs/part A/May part a.pdf	Area 7 WWTP DMRs/2021 DMRs/part A/May part a.pdf	Area 7 WWTP DMRs/2021 DMRs/part A/May part a.pdf	Plant-month timing can reflect storage/transfer lag.	DMR Part A
Jun-21	Area 7 2021	0.000	2.010	0.000	2.010	Complete	Area 7 WWTP DMRs/2021 DMRs/part A/June part a.pdf	Area 7 WWTP DMRs/2021 DMRs/part A/June part a.pdf	Area 7 WWTP DMRs/2021 DMRs/part A/June part a.pdf	Plant-month timing can reflect storage/transfer lag.	DMR Part A
Jul-21	Area 7 2021	0.000	0.000	0.000	0.000	Complete	Area 7 WWTP DMRs/2021 DMRs/part A/July part a.pdf	Area 7 WWTP DMRs/2021 DMRs/part A/July part a.pdf	Area 7 WWTP DMRs/2021 DMRs/part A/July part a.pdf	Plant-month timing can reflect storage/transfer lag.	DMR Part A
Aug-21	Area 7 2021	0.000	3.610	0.000	3.610	Complete	Area 7 WWTP DMRs/2021 DMRs/part A/aug part a.pdf	Area 7 WWTP DMRs/2021 DMRs/part A/aug part a.pdf	Area 7 WWTP DMRs/2021 DMRs/part A/aug part a.pdf	Plant-month timing can reflect storage/transfer lag.	DMR Part A
Sep-21	Area 7 2021	0.000	0.000	0.000	0.000	Complete	Area 7 WWTP DMRs/2021 DMRs/part A/Sept part a.pdf	Area 7 WWTP DMRs/2021 DMRs/part A/Sept part a.pdf	Area 7 WWTP DMRs/2021 DMRs/part A/Sept part a.pdf	Plant-month timing can reflect storage/transfer lag.	DMR Part A
Oct-21	Area 7 2021	0.000	3.340	0.000	3.340	Complete	Area 7 WWTP DMRs/2021 DMRs/part A/Oct part a.pdf	Area 7 WWTP DMRs/2021 DMRs/part A/Oct part a.pdf	Area 7 WWTP DMRs/2021 DMRs/part A/Oct part a.pdf	Plant-month timing can reflect storage/transfer lag.	DMR Part A
Nov-21	Area 7 2021	0.000	1.600	0.000	1.600	Complete	Area 7 WWTP DMRs/2021 DMRs/part A/Nov part a.pdf	Area 7 WWTP DMRs/2021 DMRs/part A/Nov part a.pdf	Area 7 WWTP DMRs/2021 DMRs/part A/Nov part a.pdf	Plant-month timing can reflect storage/transfer lag.	DMR Part A
Dec-21	Area 7 2021	0.000	0.000	0.000	0.000	Complete	Area 7 WWTP DMRs/2021 DMRs/part A/Dec part a.pdf	Area 7 WWTP DMRs/2021 DMRs/part A/Dec part a.pdf	Area 7 WWTP DMRs/2021 DMRs/part A/Dec part a.pdf	Plant-month timing can reflect storage/transfer lag.	DMR Part A
Jan-22	Area 7 2022	0.000	1.877	0.000	1.877	Complete	Area 7 WWTP DMRs/2022 DMRs/part A/Jan part a.pdf	Area 7 WWTP DMRs/2022 DMRs/part A/Jan part a.pdf	Area 7 WWTP DMRs/2022 DMRs/part A/Jan part a.pdf	Plant-month timing can reflect storage/transfer lag.	DMR Part A
Feb-22	Area 7 2022	0.000	0.000	0.000	0.000	Complete	Area 7 WWTP DMRs/2022 DMRs/part A/Feb part a.pdf	Area 7 WWTP DMRs/2022 DMRs/part A/Feb part a.pdf	Area 7 WWTP DMRs/2022 DMRs/part A/Feb part a.pdf	Plant-month timing can reflect storage/transfer lag.	DMR Part A
Mar-22	Area 7 2022	0.000	4.950	0.000	4.950	Complete	Area 7 WWTP DMRs/2022 DMRs/part A/march part a.pdf	Area 7 WWTP DMRs/2022 DMRs/part A/march part a.pdf	Area 7 WWTP DMRs/2022 DMRs/part A/march part a.pdf	Plant-month timing can reflect storage/transfer lag.	DMR Part A
Apr-22	Area 7 2022	0.000	4.950	0.000	4.950	Complete	Area 7 WWTP DMRs/2022 DMRs/part A/April part a.pdf	Area 7 WWTP DMRs/2022 DMRs/part A/April part a.pdf	Area 7 WWTP DMRs/2022 DMRs/part A/April part a.pdf	Plant-month timing can reflect storage/transfer lag.	DMR Part A
May-22	Area 7 2022	0.000	0.000	0.000	0.000	Complete	Area 7 WWTP DMRs/2022 DMRs/part A/May part a.pdf	Area 7 WWTP DMRs/2022 DMRs/part A/May part a.pdf	Area 7 WWTP DMRs/2022 DMRs/part A/May part a.pdf	Plant-month timing can reflect storage/transfer lag.	DMR Part A
Jun-22	Area 7 2022	0.000	4.910	0.000	4.910	Complete	Area 7 WWTP DMRs/2022 DMRs/part A/June part a.pdf	Area 7 WWTP DMRs/2022 DMRs/part A/June part a.pdf	Area 7 WWTP DMRs/2022 DMRs/part A/June part a.pdf	Plant-month timing can reflect storage/transfer lag.	DMR Part A
Jul-22	Area 7 2022	0.000	0.000	0.000	0.000	Complete	Area 7 WWTP DMRs/2022 DMRs/part A/July part a.pdf	Area 7 WWTP DMRs/2022 DMRs/part A/July part a.pdf	Area 7 WWTP DMRs/2022 DMRs/part A/July part a.pdf	Plant-month timing can reflect storage/transfer lag.	DMR Part A
Aug-22	Area 7 2022	0.000	1.580	0.000	1.580	Complete	Area 7 WWTP DMRs/2022 DMRs/part A/Aug part a.pdf	Area 7 WWTP DMRs/2022 DMRs/part A/Aug part a.pdf	Area 7 WWTP DMRs/2022 DMRs/part A/Aug part a.pdf	Plant-month timing can reflect storage/transfer lag.	DMR Part A
Sep-22	Area 7 2022	0.000	0.000	0.000	0.000	Complete	Area 7 WWTP DMRs/2022 DMRs/part A/Sept part a.pdf	Area 7 WWTP DMRs/2022 DMRs/part A/Sept part a.pdf	Area 7 WWTP DMRs/2022 DMRs/part A/Sept part a.pdf	Plant-month timing can reflect storage/transfer lag.	DMR Part A
Oct-22	Area 7 2022	0.000	3.024	0.000	3.024	Complete	Area 7 WWTP DMRs/2022 DMRs/part A/Oct part a.pdf	Area 7 WWTP DMRs/2022 DMRs/part A/Oct part a.pdf	Area 7 WWTP DMRs/2022 DMRs/part A/Oct part a.pdf	Plant-month timing can reflect storage/transfer lag.	DMR Part A
Nov-22	Area 7 2022	0.000	0.000	0.000	0.000	Complete	Area 7 WWTP DMRs/2022 DMRs/part A/Nov part a.pdf	Area 7 WWTP DMRs/2022 DMRs/part A/Nov part a.pdf	Area 7 WWTP DMRs/2022 DMRs/part A/Nov part a.pdf	Plant-month timing can reflect storage/transfer lag.	DMR Part A
Dec-22	Area 7 2022	0.000	4.320	0.000	4.320	Complete	Area 7 WWTP DMRs/2022 DMRs/part A/Dec part a.pdf	Area 7 WWTP DMRs/2022 DMRs/part A/Dec part a.pdf	Area 7 WWTP DMRs/2022 DMRs/part A/Dec part a.pdf	Plant-month timing can reflect storage/transfer lag.	DMR Part A
Jan-23	Area 7 2023	0.000	10.340	0.000	10.340	Complete	Area 7 WWTP DMRs/2023 DMRs/part A/Jan 2023 part a.pdf	Area 7 WWTP DMRs/2023 DMRs/part A/Jan 2023 part a.pdf	Area 7 WWTP DMRs/2023 DMRs/part A/Jan 2023 part a.pdf	Plant-month timing can reflect storage/transfer lag.	DMR Part A
Feb-23	Area 7 2023	0.000	0.000	0.000	0.000	Complete	Area 7 WWTP DMRs/2023 DMRs/part A/Feb 2023 part a.pdf	Area 7 WWTP DMRs/2023 DMRs/part A/Feb 2023 part a.pdf	Area 7 WWTP DMRs/2023 DMRs/part A/Feb 2023 part a.pdf	Plant-month timing can reflect storage/transfer lag.	DMR Part A
Mar-23	Area 7 2023	0.000	6.368	0.000	6.368	Complete	Area 7 WWTP DMRs/2023 DMRs/part A/March 2023 part A.pdf	Area 7 WWTP DMRs/2023 DMRs/part A/March 2023 part A.pdf	Area 7 WWTP DMRs/2023 DMRs/part A/March 2023 part A.pdf	Plant-month timing can reflect storage/transfer lag.	DMR Part A
Apr-23	Area 7 2023	0.000	0.000	0.000	0.000	Complete	Area 7 WWTP DMRs/2023 DMRs/part A/April 2023 part a.pdf	Area 7 WWTP DMRs/2023 DMRs/part A/April 2023 part a.pdf	Area 7 WWTP DMRs/2023 DMRs/part A/April 2023 part a.pdf	Plant-month timing can reflect storage/transfer lag.	DMR Part A
May-23	Area 7 2023	0.000	6.900	0.000	6.900	Complete	Area 7 WWTP DMRs/2023 DMRs/part A/May 2023 part a.pdf	Area 7 WWTP DMRs/2023 DMRs/part A/May 2023 part a.pdf	Area 7 WWTP DMRs/2023 DMRs/part A/May 2023 part a.pdf	Plant-month timing can reflect storage/transfer lag.	DMR Part A
Jun-23	Area 7 2023	0.000	0.000	0.000	0.000	Complete	Area 7 WWTP DMRs/2023 DMRs/part A/June 2023 part a.pdf	Area 7 WWTP DMRs/2023 DMRs/part A/June 2023 part a.pdf	Area 7 WWTP DMRs/2023 DMRs/part A/June 2023 part a.pdf	Plant-month timing can reflect storage/transfer lag.	DMR Part A
Jul-23	Area 7 2023	0.000	5.020	0.000	5.020	Complete	Area 7 WWTP DMRs/2023 DMRs/part A/July 2023 part	Area 7 WWTP DMRs/2023 DMRs/part A/July 2023 part	Area 7 WWTP DMRs/2023 DMRs/part A/July 2023 part	Plant-month timing can reflect storage/transfer lag.	DMR Part A
Aug-23	Area 7 2023	0.000	2.320	0.000	2.320	Complete	Area 7 WWTP DMRs/2023 DMRs/part A/Aug 2023 part A.pdf	Area 7 WWTP DMRs/2023 DMRs/part A/Aug 2023 part A.pdf	Area 7 WWTP DMRs/2023 DMRs/part A/Aug 2023 part A.pdf	Plant-month timing can reflect storage/transfer lag.	DMR Part A
Sep-23	Area 7 2023	0.000	6.330	0.000	6.330	Complete	Area 7 WWTP DMRs/2023 DMRs/part A/Sept 2023 part a.pdf	Area 7 WWTP DMRs/2023 DMRs/part A/Sept 2023 part a.pdf	Area 7 WWTP DMRs/2023 DMRs/part A/Sept 2023 part a.pdf	Plant-month timing can reflect storage/transfer lag.	DMR Part A
Oct-23	Area 7 2023	0.000	0.000	0.000	0.000	Complete	Area 7 WWTP DMRs/2023 DMRs/part A/Oct 2023 part A.pdf	Area 7 WWTP DMRs/2023 DMRs/part A/Oct 2023 part A.pdf	Area 7 WWTP DMRs/2023 DMRs/part A/Oct 2023 part A.pdf	Plant-month timing can reflect storage/transfer lag.	DMR Part A
Nov-23	Area 7 2023	0.000	4.540	0.000	4.540	Complete	Area 7 WWTP DMRs/2023 DMRs/part A/Nov 2023 part	Area 7 WWTP DMRs/2023 DMRs/part A/Nov 2023 part	Area 7 WWTP DMRs/2023 DMRs/part A/Nov 2023 part	Plant-month timing can reflect storage/transfer lag.	DMR Part A
Dec-23	Area 7 2023	0.000	1.500	0.000	1.500	Complete	Area 7 WWTP DMRs/2023 DMRs/part A/Dec 2023 part A.pdf	Area 7 WWTP DMRs/2023 DMRs/part A/Dec 2023 part A.pdf	Area 7 WWTP DMRs/2023 DMRs/part A/Dec 2023 part A.pdf	Plant-month timing can reflect storage/transfer lag.	DMR Part A
Jan-24	Area 7 2024	0.000	7.850	0.000	7.850	Complete	Area 7 WWTP DMRs/2024/part A/Jan 2024 Part A.pdf	Area 7 WWTP DMRs/2024/part A/Jan 2024 Part A.pdf	Area 7 WWTP DMRs/2024/part A/Jan 2024 Part A.pdf	Plant-month timing can reflect storage/transfer lag.	DMR Part A
Feb-24	Area 7 2024	0.000	4.030	0.000	4.030	Complete	Area 7 WWTP DMRs/2024/part A/Feb 2024 Part A.pdf	Area 7 WWTP DMRs/2024/part A/Feb 2024 Part A.pdf	Area 7 WWTP DMRs/2024/part A/Feb 2024 Part A.pdf	Plant-month timing can reflect storage/transfer lag.	DMR Part A
Mar-24	Area 7 2024	0.000	2.620	0.000	2.620	Complete	Area 7 WWTP DMRs/2024/part A/March 2024 Part A.pdf	Area 7 WWTP DMRs/2024/part A/March 2024 Part A.pdf	Area 7 WWTP DMRs/2024/part A/March 2024 Part A.pdf	Plant-month timing can reflect storage/transfer lag.	DMR Part A
Apr-24	Area 7 2024	0.000	5.770	0.000	5.770	Complete	Area 7 WWTP DMRs/2024/part A/April 2024 Part A.pdf	Area 7 WWTP DMRs/2024/part A/April 2024 Part A.pdf	Area 7 WWTP DMRs/2024/part A/April 2024 Part A.pdf	Plant-month timing can reflect storage/transfer lag.	DMR Part A
May-24	Area 7 2024	0.000	0.000	0.000	0.000	Complete	Area 7 WWTP DMRs/2024/part A/May 2024 part A.pdf	Area 7 WWTP DMRs/2024/part A/May 2024 part A.pdf	Area 7 WWTP DMRs/2024/part A/May 2024 part A.pdf	Plant-month timing can reflect storage/transfer lag.	DMR Part A
Jun-24	Area 7 2024	0.000	4.880	0.000	4.880	Complete	Area 7 WWTP DMRs/2024/part A/june 2024 Part a.pdf	Area 7 WWTP DMRs/2024/part A/june 2024 Part a.pdf	Area 7 WWTP DMRs/2024/part A/june 2024 Part a.pdf	Plant-month timing can reflect storage/transfer lag.	DMR Part A
Jul-24	Area 7 2024	0.000	1.050	0.000	1.050	Complete	Area 7 WWTP DMRs/2024/part A/July 2024 part a.pdf	Area 7 WWTP DMRs/2024/part A/July 2024 part a.pdf	Area 7 WWTP DMRs/2024/part A/July 2024 part a.pdf	Plant-month timing can reflect storage/transfer lag.	DMR Part A
Aug-24	Area 7 2024	0.000	0.000	0.000	0.000	Complete	Area 7 WWTP DMRs/2024/part A/Aug 2024 part A.pdf	Area 7 WWTP DMRs/2024/part A/Aug 2024 part A.pdf	Area 7 WWTP DMRs/2024/part A/Aug 2024 part A.pdf	Plant-month timing can reflect storage/transfer lag.	DMR Part A
Sep-24	Area 7 2024	0.000	5.010	0.000	5.010	Complete	Area 7 WWTP DMRs/2024/part A/Sept 2024 part A.pdf	Area 7 WWTP DMRs/2024/part A/Sept 2024 part A.pdf	Area 7 WWTP DMRs/2024/part A/Sept 2024 part A.pdf	Plant-month timing can reflect storage/transfer lag.	DMR Part A
Oct-24	Area 7 2024	0.000	0.000	0.000	0.000	Complete	Area 7 WWTP DMRs/2024/part A/Oct 2024 Part a.pdf	Area 7 WWTP DMRs/2024/part A/Oct 2024 Part a.pdf	Area 7 WWTP DMRs/2024/part A/Oct 2024 Part a.pdf	Plant-month timing can reflect storage/transfer lag.	DMR Part A
Nov-24	Area 7 2024	0.000	0.000	0.000	0.000	Complete	Area 7 WWTP DMRs/2024/part A/Nov 2024 Part a.pdf	Area 7 WWTP DMRs/2024/part A/Nov 2024 Part a.pdf	Area 7 WWTP DMRs/2024/part A/Nov 2024 Part a.pdf	Plant-month timing can reflect storage/transfer lag.	DMR Part A
Dec-24	Area 7 2024	0.000	3.840	0.000	3.840	Complete	Area 7 WWTP DMRs/2024/part B/Dec 2024 Part a.pdf	Area 7 WWTP DMRs/2024/part B/Dec 2024 Part a.pdf	Area 7 WWTP DMRs/2024/part B/Dec 2024 Part a.pdf	Plant-month timing can reflect storage/transfer lag.	DMR Part A
Jan-25	Area 7 2025	0.000	4.870	0.000	4.870	Complete	Area 7 WWTP DMRs/2025 DMRs/part A/jan part a 2025.pdf	Area 7 WWTP DMRs/2025 DMRs/part A/jan part a 2025.pdf	Area 7 WWTP DMRs/2025 DMRs/part A/jan part a 2025.pdf	Plant-month timing can reflect storage/transfer lag.	DMR Part A
Feb-25	Area 7 2025	0.000	0.000	0.000	0.000	Complete	Area 7 WWTP DMRs/2025 DMRs/part A/feb part a 2025.pdf	Area 7 WWTP DMRs/2025 DMRs/part A/feb part a 2025.pdf	Area 7 WWTP DMRs/2025 DMRs/part A/feb part a 2025.pdf	Plant-month timing can reflect storage/transfer lag.	DMR Part A
Mar-25	Area 7 2025	0.000	5.390	0.000	5.390	Complete	Area 7 WWTP DMRs/2025 DMRs/part A/march part a 2025.pdf	Area 7 WWTP DMRs/2025 DMRs/part A/march part a 2025.pdf	Area 7 WWTP DMRs/2025 DMRs/part A/march part a 2025.pdf	Plant-month timing can reflect storage/transfer lag.	DMR Part A
Apr-25	Area 7 2025	0.000	0.000	0.000	0.000	Complete	Area 7 WWTP DMRs/2025 DMRs/part A/April part a 2025.pdf	Area 7 WWTP DMRs/2025 DMRs/part A/April part a 2025.pdf	Area 7 WWTP DMRs/2025 DMRs/part A/April part a 2025.pdf	Plant-month timing can reflect storage/transfer lag.	DMR Part A
May-25	Area 7 2025	0.000	0.000	0.000	0.000	Complete	Area 7 WWTP DMRs/2025 DMRs/part A/May Part a.pdf	Area 7 WWTP DMRs/2025 DMRs/part A/May Part a.pdf	Area 7 WWTP DMRs/2025 DMRs/part A/May Part a.pdf	Plant-month timing can reflect storage/transfer lag.	DMR Part A
Jun-25	Area 7 2025	0.000	8.360	0.000	8.360	Complete	Area 7 WWTP DMRs/2025 DMRs/part A/june Part a.pdf	Area 7 WWTP DMRs/2025 DMRs/part A/june Part a.pdf	Area 7 WWTP DMRs/2025 DMRs/part A/june Part a.pdf	Plant-month timing can reflect storage/transfer lag.	DMR Part A
Jul-25	Area 7 2025	0.000	0.000	0.000	0.000	Complete	Area 7 WWTP DMRs/2025 DMRs/part A/july Part a.pdf	Area 7 WWTP DMRs/2025 DMRs/part A/july Part a.pdf	Area 7 WWTP DMRs/2025 DMRs/part A/july Part a.pdf	Plant-month timing can reflect storage/transfer lag.	DMR Part A
Aug-25	Area 7 2025	0.000	7.920	0.000	7.920	Complete	Area 7 WWTP DMRs/2025 DMRs/part A/aug Part a.pdf	Area 7 WWTP DMRs/2025 DMRs/part A/aug Part a.pdf	Area 7 WWTP DMRs/2025 DMRs/part A/aug Part a.pdf	Plant-month timing can reflect storage/transfer lag.	DMR Part A
Sep-25	Area 7 2025	0.000	0.000	0.000	0.000	Complete	Area 7 WWTP DMRs/2025 DMRs/part A/sept Part a.pdf	Area 7 WWTP DMRs/2025 DMRs/part A/sept Part a.pdf	Area 7 WWTP DMRs/2025 DMRs/part A/sept Part a.pdf	Plant-month timing can reflect storage/transfer lag.	DMR Part A
Oct-25	Area 7 2025	0.000	4.890	0.000	4.890	Complete	Area 7 WWTP DMRs/2025 DMRs/part A/oct Part a.pdf	Area 7 WWTP DMRs/2025 DMRs/part A/oct Part a.pdf	Area 7 WWTP DMRs/2025 DMRs/part A/oct Part a.pdf	Plant-month timing can reflect storage/transfer lag.	DMR Part A
Nov-25	Area 7 2025	0.000	0.000	0.000	0.000	Complete	Area 7 WWTP DMRs/2025 DMRs/part A/nov Part a.pdf	Area 7 WWTP DMRs/2025 DMRs/part A/nov Part a.pdf	Area 7 WWTP DMRs/2025 DMRs/part A/nov Part a.pdf	Plant-month timing can reflect storage/transfer lag.	DMR Part A
Dec-25	Area 7 2025	0.000	7.620	0.000	7.620	Complete	Area 7 WWTP DMRs/2025 DMRs/part A/dec Part a.pdf	Area 7 WWTP DMRs/2025 DMRs/part A/dec Part a.pdf	Area 7 WWTP DMRs/2025 DMRs/part A/dec Part a.pdf	Plant-month timing can reflect storage/transfer lag.	DMR Part A
Jan-26	Area 7 2026	0.000	0.000	0.000	0.000	Complete	Area 7 WWTP DMRs/2026 DMRs/jan 2026 part a.pdf	Area 7 WWTP DMRs/2026 DMRs/jan 2026 part a.pdf	Area 7 WWTP DMRs/2026 DMRs/jan 2026 part a.pdf	Plant-month timing can reflect storage/transfer lag.	DMR Part A
Feb-26	Area 7 2026	0.000	6.770	0.000	6.770	Complete	Area 7 WWTP DMRs/2026 DMRs/feb 2026 part a.pdf	Area 7 WWTP DMRs/2026 DMRs/feb 2026 part a.pdf	Area 7 WWTP DMRs/2026 DMRs/feb 2026 part a.pdf	Plant-month timing can reflect storage/transfer lag.	DMR Part A
Mar-26	Area 7 2026	0.000	0.000	0.000	0.000	Complete	Area 7 WWTP DMRs/2026 DMRs/march 2026 part a.pdf	Area 7 WWTP DMRs/2026 DMRs/march 2026 part a.pdf	Area 7 WWTP DMRs/2026 DMRs/march 2026 part a.pdf	Plant-month timing can reflect storage/transfer lag.	DMR Part A
Apr-26	Area 7 2026	0.000	0.000	0.000	0.000	Complete	Area 7 WWTP DMRs/2026 DMRs/April 2026 part a.pdf	Area 7 WWTP DMRs/2026 DMRs/April 2026 part a.pdf	Area 7 WWTP DMRs/2026 DMRs/April 2026 part a.pdf	Plant-month timing can reflect storage/transfer lag.	DMR Part A
May-26	Area 7 2026	0.000	0.000	0.000	0.000	Complete	Area 7 WWTP DMRs/2026 DMRs/may 2026 part a.pdf	Area 7 WWTP DMRs/2026 DMRs/may 2026 part a.pdf	Area 7 WWTP DMRs/2026 DMRs/may 2026 part a.pdf	Plant-month timing can reflect storage/transfer lag.	DMR Part A
Jun-26	Area 7 2026	0.000	9.700	0.000	9.700	Complete	Area 7 WWTP DMRs/2026 DMRs/jun2026 part a.pdf	Area 7 WWTP DMRs/2026 DMRs/jun2026 part a.pdf	Area 7 WWTP DMRs/2026 DMRs/jun2026 part a.pdf	Plant-month timing can reflect storage/transfer lag.	DMR Part A

Area 6 DMR Monthly Average Flow

Month	Monthly Average Flow	Units	Monitoring Site	Source PDF	Available-Period Average	Notes
Jan-20	0.084	MGD	FLW-1	Area 6 WWTP DMRs/2020/part A/Jan 2020 part A.pdf	0.084	Extracted from DMR Part A.
Feb-20	0.083	MGD	FLW-1	Area 6 WWTP DMRs/2020/part A/Feb 2020 part A.pdf	0.084	Extracted from DMR Part A.
Mar-20	0.070	MGD	FLW-1	Area 6 WWTP DMRs/2020/part A/March 2020 part A.pdf	0.079	Extracted from DMR Part A.
Apr-20	0.042	MGD	FLW-1	Area 6 WWTP DMRs/2020/part A/April 2020 part A.pdf	0.070	Extracted from DMR Part A.
May-20	0.084	MGD	FLW-1	Area 6 WWTP DMRs/2020/part A/May 2020 part a.pdf	0.073	Extracted from DMR Part A.
Jun-20	0.087	MGD	FLW-1	Area 6 WWTP DMRs/2020/part A/June 2020 part a.pdf	0.075	Extracted from DMR Part A.
Jul-20	0.110	MGD	FLW-1	Area 6 WWTP DMRs/2020/part A/July 2020 part a.pdf	0.080	Extracted from DMR Part A.
Aug-20	0.077	MGD	FLW-1	Area 6 WWTP DMRs/2020/part A/Aug 2020 part A.pdf	0.080	Extracted from DMR Part A.
Sep-20	0.106	MGD	FLW-1	Area 6 WWTP DMRs/2020/part A/sept 2020 part A.pdf	0.083	Extracted from DMR Part A.
Oct-20	0.125	MGD	FLW-1	Area 6 WWTP DMRs/2020/part A/oct 2020 part A.pdf	0.087	Extracted from DMR Part A.
Nov-20	0.097	MGD	FLW-1	Area 6 WWTP DMRs/2020/part A/Nov 2020 part A.pdf	0.088	Extracted from DMR Part A.
Dec-20	0.084	MGD	FLW-1	Area 6 WWTP DMRs/2020/part A/Dec 2020 part a.pdf	0.087	Extracted from DMR Part A.
Jan-21	0.072	MGD	FLW-1	Area 6 WWTP DMRs/2021/part A/Jan 2021 part A.pdf	0.086	Extracted from DMR Part A.
Feb-21	0.092	MGD	FLW-1	Area 6 WWTP DMRs/2021/part A/Feb 2021 part A.pdf	0.087	Extracted from DMR Part A.
Mar-21	0.105	MGD	FLW-1	Area 6 WWTP DMRs/2021/part A/March 2021 part A.pdf	0.088	Extracted from DMR Part A.
Apr-21	0.091	MGD	FLW-1	Area 6 WWTP DMRs/2021/part A/April 2021 part a.pdf	0.088	Extracted from DMR Part A.
May-21	0.088	MGD	FLW-1	Area 6 WWTP DMRs/2021/part A/May 2021 part A.pdf	0.088	Extracted from DMR Part A.
Jun-21	0.093	MGD	FLW-1	Area 6 WWTP DMRs/2021/part A/June 2021 part A.pdf	0.088	Extracted from DMR Part A.
Jul-21	0.104	MGD	FLW-1	Area 6 WWTP DMRs/2021/part A/July 2021 part A.pdf	0.089	Extracted from DMR Part A.
Aug-21	0.089	MGD	FLW-1	Area 6 WWTP DMRs/2021/part A/August 2021 part A.pdf	0.089	Extracted from DMR Part A.
Sep-21	0.073	MGD	FLW-1	Area 6 WWTP DMRs/2021/part A/Sept 2021 part A.pdf	0.088	Extracted from DMR Part A.
Oct-21	0.069	MGD	FLW-1	Area 6 WWTP DMRs/2021/part A/October 2021 part A.pdf	0.088	Extracted from DMR Part A.
Nov-21	0.076	MGD	FLW-1	Area 6 WWTP DMRs/2021/part A/Nov 2021 part a.pdf	0.087	Extracted from DMR Part A.
Dec-21	0.075	MGD	FLW-1	Area 6 WWTP DMRs/2021/part A/Dec 2021 part a.pdf	0.087	Extracted from DMR Part A.
Jan-22	0.086	MGD	FLW-1	Area 6 WWTP DMRs/2022/part A/Jan 2022 part a.pdf	0.086	Extracted from DMR Part A.
Feb-22	0.089	MGD	FLW-1	Area 6 WWTP DMRs/2022/part A/Feb 2022 part a.pdf	0.087	Extracted from DMR Part A.
Mar-22	0.084	MGD	FLW-1	Area 6 WWTP DMRs/2022/part A/March 2022 part a.pdf	0.086	Extracted from DMR Part A.
Apr-22	0.062	MGD	FLW-1	Area 6 WWTP DMRs/2022/part A/April 2022 part a.pdf	0.086	Extracted from DMR Part A.
May-22	0.075	MGD	FLW-1	Area 6 WWTP DMRs/2022/part A/May 2022 part a.pdf	0.085	Extracted from DMR Part A.
Jun-22	0.105	MGD	FLW-1	Area 6 WWTP DMRs/2022/part A/June 2022 part a.pdf	0.086	Extracted from DMR Part A.
Jul-22	0.090	MGD	FLW-1	Area 6 WWTP DMRs/2022/part A/July 2022 part a.pdf	0.086	Extracted from DMR Part A.
Aug-22	0.081	MGD	FLW-1	Area 6 WWTP DMRs/2022/part A/Aug 2022 part a.pdf	0.086	Extracted from DMR Part A.
Sep-22	0.089	MGD	FLW-1	Area 6 WWTP DMRs/2022/part A/Sept 2022 part a.pdf	0.086	Extracted from DMR Part A.
Oct-22	0.098	MGD	FLW-1	Area 6 WWTP DMRs/2022/part A/Oct 2022 part a.pdf	0.086	Extracted from DMR Part A.
Nov-22	0.096	MGD	FLW-1	Area 6 WWTP DMRs/2022/part A/Nov 2022 part a.pdf	0.087	Extracted from DMR Part A.
Dec-22	0.102	MGD	FLW-1	Area 6 WWTP DMRs/2022/part A/Dec 2022 part a.pdf	0.087	Extracted from DMR Part A.
Jan-23	0.084	MGD	FLW-1	Area 6 WWTP DMRs/2023/part A/Jan 2023 part a.pdf	0.087	Extracted from DMR Part A.
Feb-23	0.092	MGD	FLW-1	Area 6 WWTP DMRs/2023/part A/Feb 2023 part a.pdf	0.087	Extracted from DMR Part A.
Mar-23	0.092	MGD	FLW-1	Area 6 WWTP DMRs/2023/part A/Mar 2023 part a.pdf	0.087	Extracted from DMR Part A.
Apr-23	0.092	MGD	FLW-1	Area 6 WWTP DMRs/2023/part A/April 2023 part a.pdf	0.087	Extracted from DMR Part A.
May-23	0.089	MGD	FLW-1	Area 6 WWTP DMRs/2023/part A/May 2023 part a.pdf	0.087	Extracted from DMR Part A.
Jun-23	0.108	MGD	FLW-1	Area 6 WWTP DMRs/2023/part A/June 2023 part a.pdf	0.088	Extracted from DMR Part A.
Jul-23	0.098	MGD	FLW-1	Area 6 WWTP DMRs/2023/part A/July 2023 part a.pdf	0.088	Extracted from DMR Part A.
Aug-23	0.095	MGD	FLW-1	Area 6 WWTP DMRs/2023/part A/Aug 2023 part a.pdf	0.088	Extracted from DMR Part A.
Sep-23	0.091	MGD	FLW-1	Area 6 WWTP DMRs/2023/part A/sept 2023 part a.pdf	0.088	Extracted from DMR Part A.
Oct-23	0.101	MGD	FLW-1	Area 6 WWTP DMRs/2023/part A/oct 2023 part a.pdf	0.089	Extracted from DMR Part A.
Nov-23	0.108	MGD	FLW-1	Area 6 WWTP DMRs/2023/part A/nov 2023 part a.pdf	0.089	Extracted from DMR Part A.
Dec-23	0.117	MGD	FLW-1	Area 6 WWTP DMRs/2023/part A/Dec 2023 part a.pdf	0.090	Extracted from DMR Part A.
Jan-24	0.107	MGD	FLW-1	Area 6 WWTP DMRs/2024/part a/Jan 2024 part a.pdf	0.090	Extracted from DMR Part A.
Feb-24	0.110	MGD	FLW-1	Area 6 WWTP DMRs/2024/part a/Feb 2024 part a.pdf	0.090	Extracted from DMR Part A.
Mar-24	0.116	MGD	FLW-1	Area 6 WWTP DMRs/2024/part a/March 2024 part a.pdf	0.091	Extracted from DMR Part A.
Apr-24	0.085	MGD	FLW-1	Area 6 WWTP DMRs/2024/part a/April 2024 part a.pdf	0.091	Extracted from DMR Part A.
May-24	0.099	MGD	FLW-1	Area 6 WWTP DMRs/2024/part a/May 2024 part a.pdf	0.091	Extracted from DMR Part A.
Jun-24	0.117	MGD	FLW-1	Area 6 WWTP DMRs/2024/part a/June 2024 part a.pdf	0.091	Extracted from DMR Part A.
Jul-24	0.098	MGD	FLW-1	Area 6 WWTP DMRs/2024/part a/July 2024 part a.pdf	0.091	Extracted from DMR Part A.
Aug-24	0.138	MGD	FLW-1	Area 6 WWTP DMRs/2024/part a/Aug 2024 part a.pdf	0.092	Extracted from DMR Part A.
Sep-24	0.094	MGD	FLW-1	Area 6 WWTP DMRs/2024/part a/Sept 2024 part a.pdf	0.092	Extracted from DMR Part A.
Oct-24	0.082	MGD	FLW-1	Area 6 WWTP DMRs/2024/part a/oct 2024 part a.pdf	0.092	Extracted from DMR Part A.
Nov-24	0.126	MGD	FLW-1	Area 6 WWTP DMRs/2024/part a/nov 2024 part a.pdf	0.093	Extracted from DMR Part A.
Dec-24	0.065	MGD	FLW-1	Area 6 WWTP DMRs/2024/part a/dec 2024 part a.pdf	0.092	Extracted from DMR Part A.
Jan-25	0.133	MGD	FLW-1	Area 6 WWTP DMRs/2025/part a/jan 2025 part a.pdf	0.093	Extracted from DMR Part A.
Feb-25	0.129	MGD	FLW-1	Area 6 WWTP DMRs/2025/part a/feb 2025 part a.pdf	0.094	Extracted from DMR Part A.
Mar-25	0.114	MGD	FLW-1	Area 6 WWTP DMRs/2025/part a/march 2025 part a.pdf	0.094	Extracted from DMR Part A.
Apr-25	0.103	MGD	FLW-1	Area 6 WWTP DMRs/2025/part a/april 2025 part a.pdf	0.094	Extracted from DMR Part A.
May-25	0.109	MGD	FLW-1	Area 6 WWTP DMRs/2025/part b/may part b.pdf	0.094	Extracted from DMR Part A.
Jun-25	0.131	MGD	FLW-1	Area 6 WWTP DMRs/2025/part a/june part a.pdf	0.095	Extracted from DMR Part A.
Jul-25	0.120	MGD	FLW-1	Area 6 WWTP DMRs/2025/part a/july part a.pdf	0.095	Extracted from DMR Part A.
Aug-25	0.104	MGD	FLW-1	Area 6 WWTP DMRs/2025/part a/aug part a.pdf	0.095	Extracted from DMR Part A.
Sep-25	0.116	MGD	FLW-1	Area 6 WWTP DMRs/2025/part a/sept part a.pdf	0.096	Extracted from DMR Part A.
Nov-25	0.113	MGD	FLW-1	Area 6 WWTP DMRs/2025/part a/November part a.pdf	0.096	Extracted from DMR Part A.
Dec-25	0.119	MGD	FLW-1	Area 6 WWTP DMRs/2025/part a/dec 2025 part a.pdf	0.096	Extracted from DMR Part A.
Jan-26	0.115	MGD	FLW-1	Area 6 WWTP DMRs/2026/jan part a 2026.pdf	0.096	Extracted from DMR Part A.
Feb-26	0.123	MGD	FLW-1	Area 6 WWTP DMRs/2026/feb part a 2026.pdf	0.097	Extracted from DMR Part A.
Mar-26	0.127	MGD	FLW-1	Area 6 WWTP DMRs/2026/march part a 2026.pdf	0.097	Extracted from DMR Part A.
Apr-26	0.117	MGD	FLW-1	Area 6 WWTP DMRs/2026/april part a 2026.pdf	0.097	Extracted from DMR Part A.
May-26	0.115	MGD	FLW-1	Area 6 WWTP DMRs/2026/may part a 2026.pdf	0.098	Extracted from DMR Part A.
Jun-26	0.116	MGD	FLW-1	Area 6 WWTP DMRs/2026/jun part a 2026.pdf	0.098	Extracted from DMR Part A.

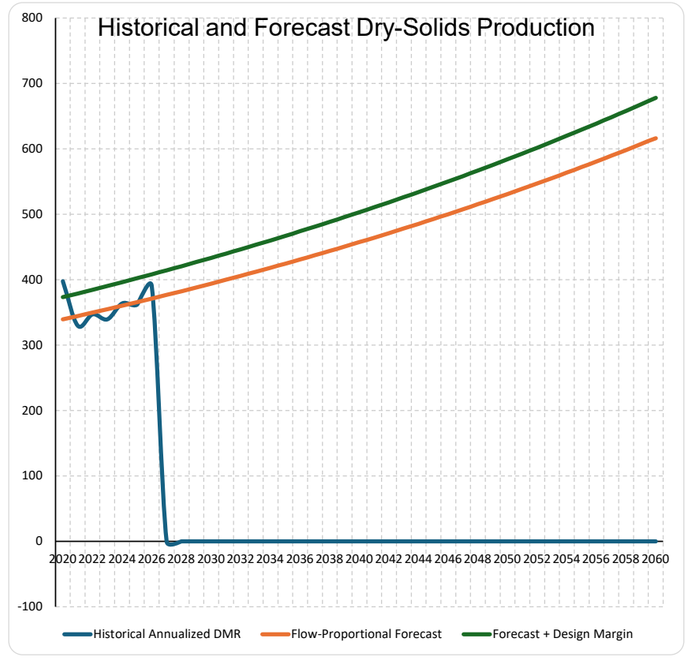


Annualized Biosolids Summary by Plant and System

Year	Plant	Complete Months	Landfilled	Transferred	Received	Net Dry Tons	Annualized Net Dry Tons	Coverage	3-Year Avg (System)	Notes
2019	Area 3	10	48.424	26.009	0.000	74.433	89.320	10/12 months		Annualized values scale observed complete months to 12.
2019	Area 5	12	2.390	87.260	0.000	89.650	89.650	Complete		Annualized values scale observed complete months to 12.
2019	Area 7	12	3.050	14.620	0.000	17.670	17.670	Complete		Annualized values scale observed complete months to 12.
2020	Area 3	10	81.381	2.630	0.000	84.011	100.813	10/12 months		Annualized values scale observed complete months to 12.
2020	Area 4	12	134.222	11.010	21.020	124.212	124.212	Complete		Annualized values scale observed complete months to 12.
2020	Area 5	12	0.000	113.260	0.000	113.260	113.260	Complete		Annualized values scale observed complete months to 12.
2020	Area 6	12	107.871	0.000	55.471	52.400	52.400	Complete		Annualized values scale observed complete months to 12.
2020	Area 7	11	0.000	10.864	0.000	10.864	11.852	11/12 months		Annualized values scale observed complete months to 12.
2020	SYSTEM	9				298.083	397.444	9/12 months		Annualized values scale observed complete months to 12.
2021	Area 3	12	17.976	36.230	0.000	54.206	54.206	Complete		Annualized values scale observed complete months to 12.
2021	Area 4	12	237.479	8.810	153.020	93.269	93.269	Complete		Annualized values scale observed complete months to 12.
2021	Area 5	10	0.000	119.250	0.000	119.250	143.100	10/12 months		Annualized values scale observed complete months to 12.
2021	Area 6	12	97.713	0.000	51.270	46.443	46.443	Complete		Annualized values scale observed complete months to 12.
2021	Area 7	12	0.000	16.750	0.000	16.750	16.750	Complete		Annualized values scale observed complete months to 12.
2021	SYSTEM	10				274.703	329.644	10/12 months		Annualized values scale observed complete months to 12.
2022	Area 3	12	0.000	68.880	0.000	68.880	68.880	Complete		Annualized values scale observed complete months to 12.
2022	Area 4	11	260.983	3.380	157.320	107.043	116.774	11/12 months		Annualized values scale observed complete months to 12.
2022	Area 5	12	0.000	109.830	0.000	109.830	109.830	Complete		Annualized values scale observed complete months to 12.
2022	Area 6	12	65.271	1.360	31.201	35.431	35.431	Complete		Annualized values scale observed complete months to 12.
2022	Area 7	12	0.000	25.611	0.000	25.611	25.611	Complete		Annualized values scale observed complete months to 12.
2022	SYSTEM	11				318.260	347.193	11/12 months	358.093	Annualized values scale observed complete months to 12.
2023	Area 3	12	0.000	67.056	0.000	67.056	67.056	Complete		Annualized values scale observed complete months to 12.
2023	Area 4	12	322.019	0.000	257.920	64.099	64.099	Complete		Annualized values scale observed complete months to 12.
2023	Area 5	12	0.000	132.230	0.000	132.230	132.230	Complete		Annualized values scale observed complete months to 12.
2023	Area 6	12	24.821	20.080	12.420	32.481	32.481	Complete		Annualized values scale observed complete months to 12.
2023	Area 7	12	0.000	43.318	0.000	43.318	43.318	Complete		Annualized values scale observed complete months to 12.
2023	SYSTEM	12				339.184	339.184	Complete	338.673	Annualized values scale observed complete months to 12.
2024	Area 3	12	0.000	69.120	0.000	69.120	69.120	Complete		Annualized values scale observed complete months to 12.
2024	Area 4	11	333.270	0.000	263.820	69.450	75.764	11/12 months		Annualized values scale observed complete months to 12.
2024	Area 5	12	0.000	124.310	0.000	124.310	124.310	Complete		Annualized values scale observed complete months to 12.
2024	Area 6	12	0.000	37.880	0.000	37.880	37.880	Complete		Annualized values scale observed complete months to 12.
2024	Area 7	12	0.000	35.050	0.000	35.050	35.050	Complete		Annualized values scale observed complete months to 12.
2024	SYSTEM	11				333.270	363.567	11/12 months	349.981	Annualized values scale observed complete months to 12.
2025	Area 3	12	0.000	72.150	0.000	72.150	72.150	Complete		Annualized values scale observed complete months to 12.
2025	Area 4	12	369.860	0.000	238.780	131.080	131.080	Complete		Annualized values scale observed complete months to 12.
2025	Area 5	12	0.000	102.100	0.000	102.100	102.100	Complete		Annualized values scale observed complete months to 12.
2025	Area 6	11	13.780	27.770	8.850	32.700	35.673	11/12 months		Annualized values scale observed complete months to 12.
2025	Area 7	12	0.000	39.050	0.000	39.050	39.050	Complete		Annualized values scale observed complete months to 12.
2025	SYSTEM	11				331.520	361.658	11/12 months	354.803	Annualized values scale observed complete months to 12.
2026	Area 3	6	0.000	44.920	0.000	44.920	89.840	6/12 months		Annualized values scale observed complete months to 12.
2026	Area 4	6	195.050	0.000	125.250	69.800	139.600	6/12 months		Annualized values scale observed complete months to 12.
2026	Area 5	6	0.000	49.680	0.000	49.680	99.360	6/12 months		Annualized values scale observed complete months to 12.
2026	Area 6	6	0.000	14.160	0.000	14.160	28.320	6/12 months		Annualized values scale observed complete months to 12.
2026	Area 7	6	0.000	16.470	0.000	16.470	32.940	6/12 months		Annualized values scale observed complete months to 12.
2026	SYSTEM	6				195.030	390.060	6/12 months	371.762	Annualized values scale observed complete months to 12.

Dry-Solids Forecast and Design Basis

Year	Historical Annualized DMR	Flow-Proportional Forecast	Forecast + Design Margin	Method	Current Flow Basis	2060 Flow Basis	Annual Growth	Notes
2020	397.4	339.3	373.2	Flow proportional	0.95	1.65	1.50%	Historical annualization shown where coverage is incomplete.
2021	329.6	344.4	378.8	Flow proportional	0.95	1.65	1.50%	Historical annualization shown where coverage is incomplete.
2022	347.2	349.5	384.5	Flow proportional	0.95	1.65	1.50%	Historical annualization shown where coverage is incomplete.
2023	339.2	354.8	390.3	Flow proportional	0.95	1.65	1.50%	Historical annualization shown where coverage is incomplete.
2024	363.6	360.1	396.2	Flow proportional	0.95	1.65	1.50%	Historical annualization shown where coverage is incomplete.
2025	361.7	365.6	402.1	Flow proportional	0.95	1.65	1.50%	Historical annualization shown where coverage is incomplete.
2026	390.1	371.0	408.2	Flow proportional	0.95	1.65	1.50%	Historical annualization shown where coverage is incomplete.
2027		376.6	414.3	Flow proportional	0.95	1.65	1.50%	Historical annualization shown where coverage is incomplete.
2028		382.3	420.5	Flow proportional	0.95	1.65	1.50%	Historical annualization shown where coverage is incomplete.
2029		388.0	426.8	Flow proportional	0.95	1.65	1.50%	Historical annualization shown where coverage is incomplete.
2030		393.9	433.3	Flow proportional	0.95	1.65	1.50%	Historical annualization shown where coverage is incomplete.
2031		399.8	439.8	Flow proportional	0.95	1.65	1.50%	Historical annualization shown where coverage is incomplete.
2032		405.8	446.4	Flow proportional	0.95	1.65	1.50%	Historical annualization shown where coverage is incomplete.
2033		411.9	453.1	Flow proportional	0.95	1.65	1.50%	Historical annualization shown where coverage is incomplete.
2034		418.1	459.9	Flow proportional	0.95	1.65	1.50%	Historical annualization shown where coverage is incomplete.
2035		424.4	466.8	Flow proportional	0.95	1.65	1.50%	Historical annualization shown where coverage is incomplete.
2036		430.8	473.8	Flow proportional	0.95	1.65	1.50%	Historical annualization shown where coverage is incomplete.
2037		437.2	481.0	Flow proportional	0.95	1.65	1.50%	Historical annualization shown where coverage is incomplete.
2038		443.8	488.2	Flow proportional	0.95	1.65	1.50%	Historical annualization shown where coverage is incomplete.
2039		450.5	495.5	Flow proportional	0.95	1.65	1.50%	Historical annualization shown where coverage is incomplete.
2040		457.2	503.0	Flow proportional	0.95	1.65	1.50%	Historical annualization shown where coverage is incomplete.
2041		464.1	510.5	Flow proportional	0.95	1.65	1.50%	Historical annualization shown where coverage is incomplete.
2042		471.1	518.2	Flow proportional	0.95	1.65	1.50%	Historical annualization shown where coverage is incomplete.
2043		478.2	526.0	Flow proportional	0.95	1.65	1.50%	Historical annualization shown where coverage is incomplete.
2044		485.4	533.9	Flow proportional	0.95	1.65	1.50%	Historical annualization shown where coverage is incomplete.
2045		492.7	541.9	Flow proportional	0.95	1.65	1.50%	Historical annualization shown where coverage is incomplete.
2046		500.1	550.1	Flow proportional	0.95	1.65	1.50%	Historical annualization shown where coverage is incomplete.
2047		507.6	558.3	Flow proportional	0.95	1.65	1.50%	Historical annualization shown where coverage is incomplete.
2048		515.2	566.7	Flow proportional	0.95	1.65	1.50%	Historical annualization shown where coverage is incomplete.
2049		523.0	575.3	Flow proportional	0.95	1.65	1.50%	Historical annualization shown where coverage is incomplete.
2050		530.8	583.9	Flow proportional	0.95	1.65	1.50%	Historical annualization shown where coverage is incomplete.
2051		538.8	592.7	Flow proportional	0.95	1.65	1.50%	Historical annualization shown where coverage is incomplete.
2052		546.9	601.6	Flow proportional	0.95	1.65	1.50%	Historical annualization shown where coverage is incomplete.
2053		555.1	610.6	Flow proportional	0.95	1.65	1.50%	Historical annualization shown where coverage is incomplete.
2054		563.5	619.8	Flow proportional	0.95	1.65	1.50%	Historical annualization shown where coverage is incomplete.
2055		571.9	629.1	Flow proportional	0.95	1.65	1.50%	Historical annualization shown where coverage is incomplete.
2056		580.5	638.6	Flow proportional	0.95	1.65	1.50%	Historical annualization shown where coverage is incomplete.
2057		589.3	648.2	Flow proportional	0.95	1.65	1.50%	Historical annualization shown where coverage is incomplete.
2058		598.1	657.9	Flow proportional	0.95	1.65	1.50%	Historical annualization shown where coverage is incomplete.
2059		607.1	667.8	Flow proportional	0.95	1.65	1.50%	Historical annualization shown where coverage is incomplete.
2060		616.2	677.9	Flow proportional	0.95	1.65	1.50%	Historical annualization shown where coverage is incomplete.



Step-by-Step Solids, Decant, and Centrate Mass Balance

Calculation	Formula / Definition	Current Base	2026 Annualized	2060 Design	Units
Annual dry solids	Selected annual dry-solids basis	354.8	390.1	677.9	dry tons/year
Dry solids per day	Annual tons × 2,000 ÷ 365	1944.1	2137.3	3714.3	lb/day
Incoming slurry volume	Dry lb/day ÷ (incoming TS × density)	23310.9	25627.3	44536.0	gal/day
Volume at 2% TS	Dry lb/day ÷ (2% × density)	11655.4	12813.6	22268.0	gal/day
Decant to reach 2%	Incoming volume - 2% volume	11655.4	12813.6	22268.0	gal/day
Volume at 3% TS	Dry lb/day ÷ (3% × density)	7770.3	8542.4	14845.3	gal/day
Incremental decant, 2% to 3%	2% volume - 3% volume	3885.1	4271.2	7422.7	gal/day
Total decant to 3%	Incoming volume - 3% volume	15540.6	17084.9	29690.7	gal/day
20% cake equivalent volume	Dry lb/day ÷ (cake TS × density)	1165.5	1281.4	2226.8	gal/day
Centrate, 3% to 20%	3% volume - cake volume	6604.7	7261.1	12618.5	gal/day
Total liquid return	Incoming volume - cake volume	22145.3	24345.9	42309.2	gal/day
Total return	Total liquid return ÷ 1,000,000	0.0221	0.0243	0.0423	MGD
Return / current Area 6 AADF	Return MGD ÷ current AADF	18.8%	20.7%	35.9%	%
Combined Area 6 flow	Area 6 AADF + return	0.1400	0.1422	0.1602	MGD
Combined / proposed capacity	Combined flow ÷ 0.250 MGD	56.0%	56.9%	64.1%	%
Solids lost to centrate	Dry lb/day × (1 - capture)	97.2	106.9	185.7	lb/day TSS
Optional sidestream BOD load	Return MGD × BOD mg/L × 8.34				lb/day
Optional sidestream TKN load	Return MGD × TKN mg/L × 8.34				lb/day
Optional sidestream TP load	Return MGD × TP mg/L × 8.34				lb/day

Area 6 Pre-EQ and Operating-Day Hydraulic Impact

Item	Current Base	2026 Annualized	2060 Design	Units	Calculation Note
Average thickening decant	15540.6	17084.9	29690.7	gpd	Total decant to 3%
Average dewatering centrate	6604.7	7261.1	12618.5	gpd	3% to 20% dewatering
Thickening operating-day volume	15540.6	17084.9	29690.7	gal/day	Average × 7 ÷ operating days/week
Thickening operating rate	10.8	11.9	20.6	gpm	Operating-day volume ÷ operating hours
Dewatering operating-day volume	9246.6	10165.5	17666.0	gal/day	Average × 7 ÷ operating days/week
Dewatering operating rate	19.3	21.2	36.8	gpm	Operating-day volume ÷ operating hours
Concurrent operating-day return	24787.2	27250.3	47356.7	gal/day	Thickening + dewatering
Concurrent return / 120,000-gal EQ	20.7%	22.7%	39.5%	% EQ	Operating-day return ÷ EQ volume
Combined sidestream rate	30.1	33.0	57.4	gpm	Thickening + dewatering rates
EQ detention at current AADF	24.4	24.4	24.4	hours	EQ volume ÷ current flow
EQ detention with average return	20.6	20.2	18.0	hours	EQ volume ÷ combined flow
75,000-gal MBT hydraulic days at 3%	9.7	8.8	5.1	days	MBT volume ÷ 3% thickened flow
500,000-gal digester hydraulic days at 3%	64.3	58.5	33.7	days	Digester volume ÷ 3% thickened flow

Hauling and Mechanical Dewatering Alternatives - 2060 Design Basis

Hydraulic volumes are based on the 2060 dry-solids design basis in the mass balance. Synagro invoices are billed per dry-solids-equivalent ton, while truck activity depends on the wet volume or wet cake tonnage. Cost cells remain open where the supplied records do not provide a separable haul-only or disposal-only rate.

Alternative	Solids concentration	Annual dry solids	Annual liquid volume	Annual wet cake	Truck basis	Estimated trips/year	Applicable unit cost	Estimated annual cost	Cost interpretation
Haul liquid sludge after thickening to 2%	2.00%	677.86	8,127,827		5,500 gal tanker	1478			haul-only quote required
Haul liquid sludge after thickening to 3%	3.00%	677.86	5,418,551		5,500 gal tanker	986			haul-only quote required
City-owned mechanical dewatering to 20% cake									retained haul/disposal + City O&M required
City-owned dewatering at recent observed cake TS	19.15%	677.86		3,539	20 wet tons/load	177			wet-cake sensitivity; retained cost required
Continue Synagro all-in contractor service	19.15%	677.86		3,539	billed per dry-solids equivalent	177	$1,888.33	$1,280,024.80	bundled dewatering + hauling-to-composter rate

Source-supported cost conclusion: the latest invoices establish a current all-in Synagro rate of $1,888.33 per billed dry ton. They do not establish the incremental cake haul/composting cost that remains after City-owned dewatering. The final alternatives analysis therefore requires a haul-only/composting quote and an equipment-specific City O&M estimate. The current bundled-service line can be used as the documented baseline.

Incoming Sludge and Dewatered Cake Solids Sensitivity

The 1.0% incoming-solids case is retained for conservative hydraulic design. The Synagro 2019-2020 process records provide an invoice-calibrated average of approximately 1.93% TS. Cake

Incoming Sludge Total-Solids Sensitivity

Incoming TS	Current return (gpd)	Current % AADF	2026 return (gpd)	2026 % AADF	2060 return (gpd)	2060 % AADF	Current feed (gpd)	2026 feed (gpd)	2060 feed (gpd)	Interpretation
0.50%	45,456	38.6%	49,973	42.4%	86,845	73.7%	46,622	51,255	89,072	Sensitivity case.
0.75%	29,916	25.4%	32,888	27.9%	57,155	48.5%	31,081	34,170	59,381	Sensitivity case.
1.00%	22,145	18.8%	24,346	20.7%	42,309	35.9%	23,311	25,627	44,536	Conservative hydraulic case.
1.25%	17,483	14.8%	19,220	16.3%	33,402	28.3%	18,649	20,502	35,629	Sensitivity case.
1.50%	14,375	12.2%	15,803	13.4%	27,464	23.3%	15,541	17,085	29,691	Sensitivity case.
1.93%	10,915	9.3%	12,000	10.2%	20,854	17.7%	12,081	13,281	23,081	Invoice-calibrated operating average.
2.00%	10,490	8.9%	11,532	9.8%	20,041	17.0%	11,655	12,814	22,268	Sensitivity case.
2.50%	8,159	6.9%	8,970	7.6%	15,588	13.2%	9,324	10,251	17,814	Sensitivity case.
3.00%	6,605	5.6%	7,261	6.2%	12,619	10.7%	7,770	8,542	14,845	Sensitivity case.

Dewatered Cake-Solids Sensitivity

Cake TS	Current wet cake (tons/yr)	Current loads/yr	2026 wet cake	2026 loads	2060 wet cake	2060 loads	Interpretation
15.00%	2,365	119	2,600	131	4,519	226	Historical/sensitivity case.
19.15%	1,852	93	2,037	102	3,539	177	Recent detailed operating record.
20.00%	1,774	89	1,950	98	3,389	170	Design target.
23.18%	1,531	77	1,683	85	2,924	147	Historical/sensitivity case.
25.00%	1,419	71	1,560	79	2,711	136	Historical/sensitivity case.

Process-design limitation: these invoice records establish hydraulic volumes, dry-solids mass, wet-cake solids, and contractor billing. They do not establish decant/permeate/centrate BOD, TKN, ammonia, total phosphorus, TSS, alkalinity, or temperature. Representative sampling or accepted vendor design concentrations remain necessary for the fourth-SBR biological-loading analysis.

DMR, Synagro Invoice, and Sludge-Hauling Source Index

Plant	Year	Expected Months	Complete Months	Missing Months	Data Note
Area 3	2019	12	10	Nov, Dec	Missing values are left blank; no undocumented interpolation.
Area 3	2020	12	10	Jan, Apr	Missing values are left blank; no undocumented interpolation.
Area 3	2021	12	12		Missing values are left blank; no undocumented interpolation.
Area 3	2022	12	12		Missing values are left blank; no undocumented interpolation.
Area 3	2023	12	12		Missing values are left blank; no undocumented interpolation.
Area 3	2024	12	12		Missing values are left blank; no undocumented interpolation.
Area 3	2025	12	12		Missing values are left blank; no undocumented interpolation.
Area 3	2026	6	6		Missing values are left blank; no undocumented interpolation.
Area 4	2020	12	12		Missing values are left blank; no undocumented interpolation.
Area 4	2021	12	12		Missing values are left blank; no undocumented interpolation.
Area 4	2022	12	11	Oct	Missing values are left blank; no undocumented interpolation.
Area 4	2023	12	12		Missing values are left blank; no undocumented interpolation.
Area 4	2024	12	11	Oct	Missing values are left blank; no undocumented interpolation.
Area 4	2025	12	12		Missing values are left blank; no undocumented interpolation.
Area 4	2026	6	6		Missing values are left blank; no undocumented interpolation.
Area 5	2019	12	12		Missing values are left blank; no undocumented interpolation.
Area 5	2020	12	12		Missing values are left blank; no undocumented interpolation.
Area 5	2021	12	10	Mar, Apr	Missing values are left blank; no undocumented interpolation.
Area 5	2022	12	12		Missing values are left blank; no undocumented interpolation.
Area 5	2023	12	12		Missing values are left blank; no undocumented interpolation.
Area 5	2024	12	12		Missing values are left blank; no undocumented interpolation.
Area 5	2025	12	12		Missing values are left blank; no undocumented interpolation.
Area 5	2026	6	6		Missing values are left blank; no undocumented interpolation.
Area 6	2020	12	12		Missing values are left blank; no undocumented interpolation.
Area 6	2021	12	12		Missing values are left blank; no undocumented interpolation.
Area 6	2022	12	12		Missing values are left blank; no undocumented interpolation.
Area 6	2023	12	12		Missing values are left blank; no undocumented interpolation.
Area 6	2024	12	12		Missing values are left blank; no undocumented interpolation.
Area 6	2025	12	11	Oct	Missing values are left blank; no undocumented interpolation.
Area 6	2026	6	6		Missing values are left blank; no undocumented interpolation.
Area 7	2019	12	12		Missing values are left blank; no undocumented interpolation.
Area 7	2020	12	11	Mar	Missing values are left blank; no undocumented interpolation.
Area 7	2021	12	12		Missing values are left blank; no undocumented interpolation.
Area 7	2022	12	12		Missing values are left blank; no undocumented interpolation.
Area 7	2023	12	12		Missing values are left blank; no undocumented interpolation.
Area 7	2024	12	12		Missing values are left blank; no undocumented interpolation.
Area 7	2025	12	12		Missing values are left blank; no undocumented interpolation.
Area 7	2026	6	6		Missing values are left blank; no undocumented interpolation.

City-Supplied Synagro Invoice and Sludge Records

File	Type	Size (bytes)	SHA-256	Extraction Method	Notes
Invoice_66681_1775063705792.pdf	.pdf	15,844	9082b23d932859338275d0aaf214f664a8daaa2ca249f2156d36e123f11a582c	pdfplumber	
Invoice_66193_1772718203075.pdf	.pdf	15,891	d0f72f3d5b87d23616374ae68a0d160502c09416ab201add122578c63a98bdd6	pdfplumber	
Invoice_65281_1770231310487.pdf	.pdf	16,464	d29097a9dac2df88ce2de10771bf4f103d0f7ef204b44c830df12c30c135212b	pdfplumber	
Marathon October Invoice.pdf	.pdf	8,311,151	f568227e77a0e23dc4512458f7953bc5825be59ee4b13c51a4572c370919333e7	pdfplumber	
Marathon June Invoice.pdf	.pdf	15,626,937	beee7dec30f731c509e2c2fc68c727b62fe2d7f125e36d357d43ae97f44f83ca	pdfplumber	
Invoice_60902_1757346047982.pdf	.pdf	15,984	e097374732d2e2e4fbcc7135c0cbcc4dc1cb10e3ff6959ee23682b5abea712f8	pdfplumber	

Invoice_69254_1782920661242.pdf	.pdf	15,672	57c4be8bb02894d5d89d661b9606ee8de8d0ccbb2078936c7e9c2b9edb50acfa	pdfplumber	
Invoice_62211_1759941868807.pdf	.pdf	16,260	8e29f5a899b8aac1b06342ce78b504a56de827699acc8b19088c291621108176	pdfplumber	
Invoice_69982_1784811383356.pdf	.pdf	16,171	9d6c96ff60ed266f2c234a948964bcd125d43d568b2f319681169f3df8dab70b	pdfplumber	
Invoice_68687_1780512152657.pdf	.pdf	15,832	4103431f7c34ea65118b2d456c2f3a9b5a28a9d958aea5b6deeadf78003a3367	pdfplumber	
Marathon September Invoice.pdf	.pdf	10,249,870	f8504dffac15fc4153ddc0d65430650806a9804a7c24a581c02f85b3980c16a7	pdfplumber	
Invoice_64714_1767800300156.pdf	.pdf	15,668	c172ff4877bebb06bd8909859b39a36435e31d56977b31315224d7b80fd28856	pdfplumber	
Invoice_67998_1778009028112.pdf	.pdf	16,234	eb14e42e0892d6c9abc15eabf02022d013d6ea93f38cbbfdd5e7185e306a288e	pdfplumber	
INV# 10669.pdf	.pdf	3,601,075	ec4a9d5219581c9a18a0292deb2838cab29f356576d98c4db1d7bd34c9facc50	visual/manual transcription; cross-checked to invoice and ticket pages	Invoice 10669; October 2019 Area 6 campaign with invoice page, gallons processed, and detailed cake tickets.
INV# 11017.pdf	.pdf	2,326,752	bf1cfadbdc989121e1dc0855bb6a2621eb7c2a1699764d27c39b1222a8577bc8	visual/manual transcription; cross-checked to invoice and ticket pages	Invoice 11017; November 2019 Areas 4 and 6 campaign with plant-level gallons and detailed cake tickets.
INV# 11838.pdf	.pdf	3,355,993	5bd0b9d44dbfc211fb86b8938dd5ae47686d4d536a04156de3c7f3ad0748f0cc	visual/manual transcription; cross-checked to invoice and ticket pages	Invoice 11838; December 2019 Areas 3, 4, and 6 campaign with plant-level gallons and detailed cake tickets.
INV# 12501.pdf	.pdf	2,817,664	ff499125f9e65fc87696a1aa22099023287cdc359c4b9604f892cb65eeb9e8b4	visual/manual transcription; cross-checked to invoice and ticket pages	Invoice 12501; January 2020 Areas 4 and 6 campaign with plant-level gallons and detailed cake tickets.

Facilities-Plan LCCA Public and Project Sources

Source	Type	Metric / Use	Value	URL / File	Comparability / Note
City of Marathon Resolution 2024-52	Official contract	Synagro scope and escalation structure	CPI or 2% minimum	https://www.ci.marathon.fl.us/sites/default/files/fileattachments/ordinance/32738/resolution_2024-52.pdf	Bundled dewatering and cake hauling/disposition.
City of Marathon Resolution 2025-79	Official renewal	Recent annual adjustment	5.2%	https://www.ci.marathon.fl.us/sites/default/files/fileattachments/city_council/meeting/32993/2025-79_resolution.pdf	Sets $1,888.33/DT rate.
Miami-Dade OTR	Official public award	Cake haul/disposition benchmark	$102-$185.36/wet ton	https://www.miamidade.gov/govaction/legistarfiles/Matters/Y2025/251073.pdf	Large-volume mainland service; not a Marathon quote.
Fort Worth Synagro contract	Official public contract	Contract-operation context	$396.50/DT	https://fortworthgov.legistar.com/LegislationDetail.aspx?ID=6471606&GUID=51B07AC1-D069-43BA-AD4E-46724970729F	Very large system; scope differs.
Brunswick County addendum	Official public solicitation	Dewatering/removal/disposal context	$415/DT	https://www.brunswickcountync.gov/DocumentCenter/View/5826/Addendum-No-1-for-Dewatering-Removal-and-Disposal-of-Water-Treatment-Residuals?bidId=315	Water-treatment residuals; not directly comparable.
Cumberland County Utilities Authority award	Official public award	Liquid haul-only lower bound	$0.079/gal	https://www.ccua.info/wp-content/uploads/2026/02/C-H-RESOLUTION-02-26-2026.pdf	Different state, haul-only, excludes Marathon route/tipping.
Phase IVB Detailed Construction Costs.pdf	Project estimate	Common residuals equipment capital	$2,150,000.00	Phase IVB Detailed Construction Costs.pdf	Permanent mechanical dewatering not included.
DIW SRF Appendices Combined 241205.pdf	Project planning document	30-year analysis and non-cost screening	30 years	DIW SRF Appendices Combined 241205.pdf	LCCA adds escalation and present-worth sensitivity.

DMR Solids, Area 6 Sidestream, and Residuals-Cost Dashboard

System Solids and Flow

Metric	Value	Unit
Recent dry solids	**354.80**	DT/year
2026 annualized dry solids	**390.06**	DT/year
Recent Area 6 AADF	**0.118**	MGD
Proposed Area 6 capacity	**0.250**	MGD
2060 dry-solids design	677.86	DT/year

Scenario	Return MGD	% current AADF	Combined Area 6 MGD
Recent DMR - 1% feed	**0.022**	**18.8%**	0.140
Recent DMR - 1.93% feed	0.011	9.3%	0.129
2026 annualized - 1% feed	0.024	20.7%	0.142
2060 design - 1% feed	0.042	35.9%	0.160

Metric	Value	Unit / Meaning
Supplied invoice cost	$1,054,483	17 campaigns
Billed dry-solids equivalent	584.88818	DT
Current all-in rate	$1,888.33	$/billed DT
Recent normalized annual cost	$669,985	$/year
Detailed wet cake	1,095.85	wet tons
Recent cake solids	19.15%	weighted TS
Invoice-calibrated feed TS	1.93%	weighted TS

Historical DMR and Forecast

Year	Annualized DMR	Forecast + Margin
2020	397.4	373.2
2021	329.6	378.8
2022	347.2	384.5
2023	339.2	390.3
2024	363.6	396.2
2025	361.7	402.1
2026	390.1	408.2

Sidestream Return

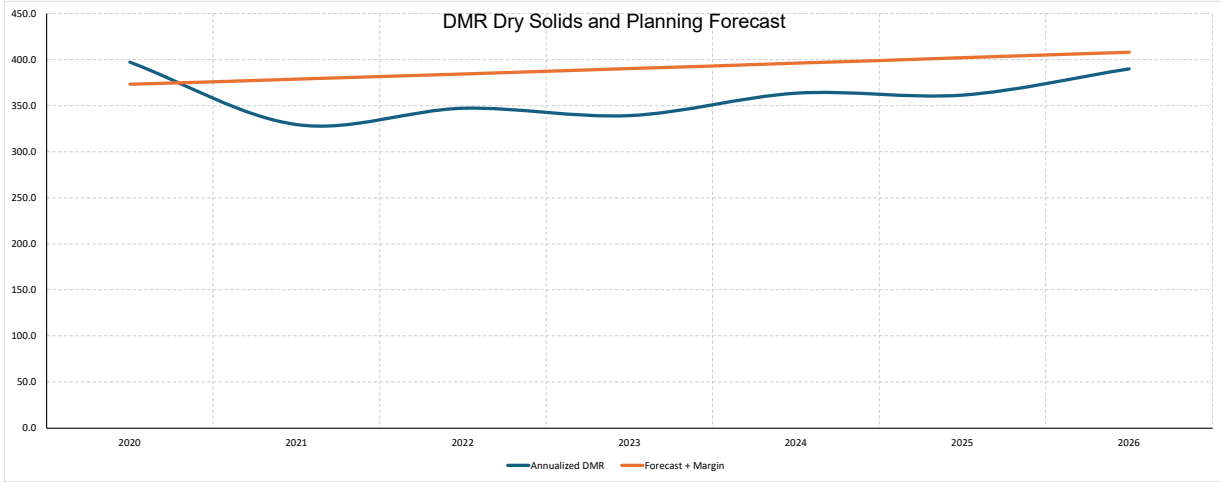
Scenario	Return MGD	% AADF
Recent 1% feed	0.022	18.8%
Recent 1.93% feed	0.011	9.3%
2026 1% feed	0.024	20.7%
2060 1% feed	0.042	35.9%

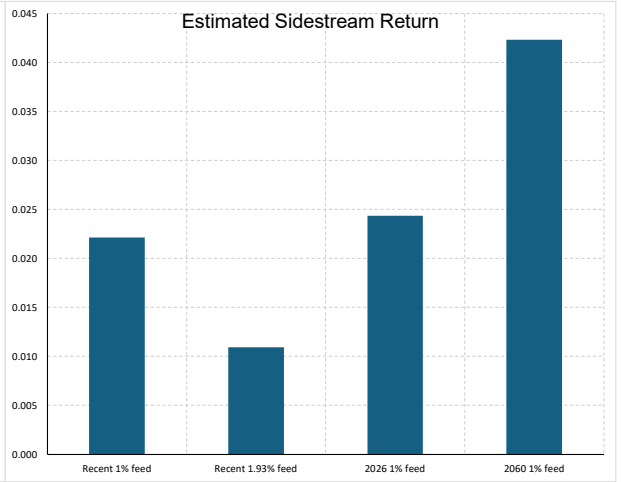
Synagro Rate History

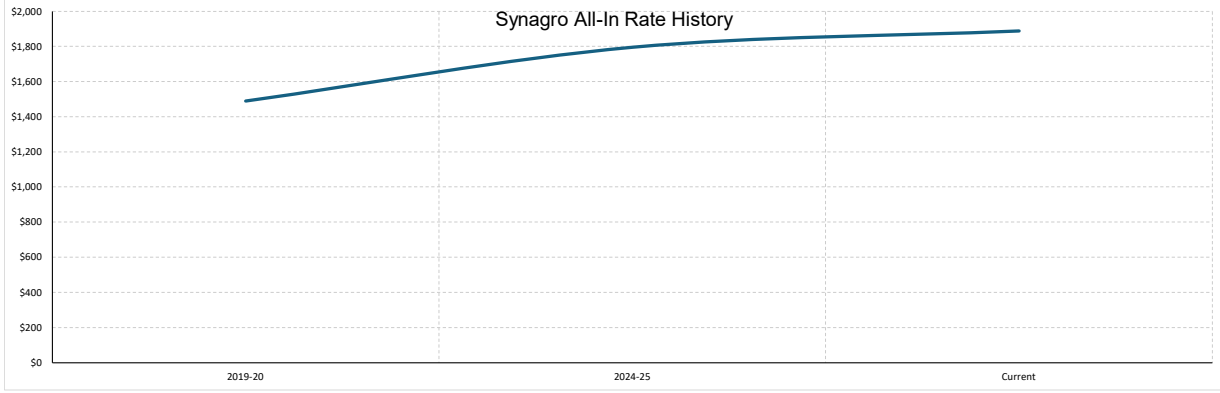
Period	$/DT
2019-20	$1,490
2024-25	$1,795
Current	**$1,888**

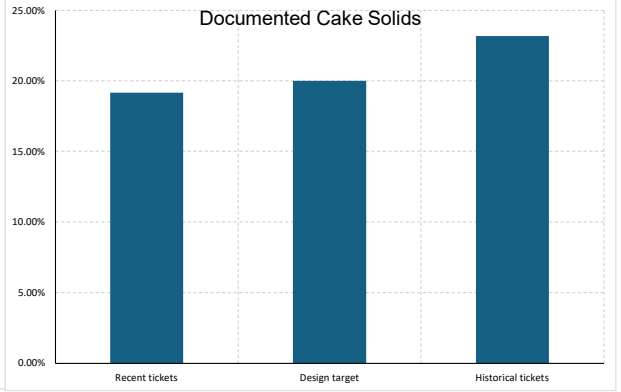
Cake Solids and Truckloads

Case	Cake TS	Recent loads/yr
Recent tickets	19.15%	93
Design target	20.00%	89
Historical tickets	23.18%	77









FACILITIES-PLAN RESIDUALS ALTERNATIVES – LIFE-CYCLE COST SUMMARY

Metric	Value	Unit	Interpretation	Metric	Value	Unit	Interpretation
Preferred combined alternative	City dewatering + haul-only/direct tip		See FP LCCA Exhibit / LCCA Summary.	Synagro base 3% PV	$24,251,662	$	Expected 3% escalation.
Preferred alternative 3% PV	$19,501,534	$	Full identified residuals-program view.	Preferred PV savings	$4,750,129	$	Positive value favors preferred alternative.
First-year cake loads	**$93**	loads/yr	20% cake basis.	First-year liquid 2% loads	$805	loads/yr	5,500-gal tanker.
First-year liquid 3% loads	$537	loads/yr	5,500-gal tanker.	Direct-tip full-payload equivalent	$147.50	$/wet ton	Annual model uses rounded loads.
Synagro 2% floor outcome	$670,383	$	Sensitivity savings; negative means Synagro lower.	Synagro 5.2% outcome	$17,527,387	$	Sensitivity savings; positive means City alternative lower.

Key interpretation: 'dry ton' is the dry-solids-equivalent mass used for Synagro billing, not the physical wet weight of centrifuge cake. The current rate provides a documented bundled contractor baseline. A final City-owned-dewatering life-cycle comparison still needs a haul-only/composting rate, internal operating and maintenance costs, and representative sidestream water-quality data for biological-process design.

Synagro Invoice Summary and Dry-Solids-Equivalent Billing Audit

Invoice totals and billing quantities are transcribed from the supplied records. The invoice unit 'Dry Ton' is a dry-solids-equivalent mass calculated from wet cake weight and measured total solids. Actual hauled centrifuge cake remains wet; the detailed records average about 20.65% solids overall and 19.15% in the recent 2024-2025 campaigns.

Invoice Date	Invoice #	Facility	Billed Dry-Solids Eq. (DT)	All-In Service Rate ($/DT)	Invoice Amount	Billed DT × Rate	Difference	Processed Liquid (gal)	Detailed Wet Cake (tons)	Detailed Loads	Weighted Cake TS	Implied Feed TS	Source File	Record Note
10/31/2019	10669	Area 6	15.13558	$1,490.00	$22,552.01	$22,552.01	$0.00	224,866.00	66.12	3.00	22.89%	1.61%	INV# 10669.pdf	Detailed cake tickets and gallons processed included.
11/30/2019	11017	Areas 4 and 6	32.57128	$1,490.00	$48,531.21	$48,531.21	$0.00	309,605.00	145.59	6.00	22.37%	2.52%	INV# 11017.pdf	Detailed cake tickets and plant-level gallons processed included.
12/31/2019	11838	Areas 3, 4, and 6	20.30466	$1,490.00	$30,253.94	$30,253.94	$0.00	319,927.00	84.94	4.00	23.90%	1.52%	INV# 11838.pdf	Detailed cake tickets and plant-level gallons processed included.
01/31/2020	12501	Areas 4 and 6	26.59945	$1,490.00	$39,633.18	$39,633.18	$0.00	321,428.00	111.51	5.00	23.85%	1.98%	INV# 12501.pdf	Detailed cake tickets and plant-level gallons processed included.
10/08/2024	52108	Area 4	38.74155	$1,795.00	$69,541.08	$69,541.08	$0.00		206.78	9.00	18.74%		Marathon September Invoice.pdf	Nine cake load records; weighted cake solids about 18.7%.
11/01/2024	52717	Area 4	26.46540	$1,795.00	$47,505.39	$47,505.39	$0.00		139.60	6.00	18.96%		Marathon October Invoice.pdf	Six cake load records including a late September ticket.
07/01/2025	59055	Area 4	66.50695	$1,795.00	$119,379.97	$119,379.98	-$0.01		341.31	14.00	19.49%		Marathon June Invoice.pdf	Fourteen cake load records including a late May ticket.
09/01/2025	60902	Area 4	55.36458	$1,888.33	$104,546.60	$104,546.60	$0.00						Invoice_60902_1757346047982.pdf	Invoice page only; dry-ton billing quantity and current unit rate.
10/07/2025	62211	Area 4	19.68337	$1,888.33	$37,168.70	$37,168.70	$0.00						Invoice_62211_1759941868807.pdf	Invoice page only; dry-ton billing quantity and current unit rate.
01/01/2026	64714	Area 4	52.53614	$1,888.33	$99,205.57	$99,205.57	$0.00						Invoice_64714_1767800300156.pdf	Invoice page only; dry-ton billing quantity and current unit rate.
02/01/2026	65281	Area 4	10.04839	$1,888.33	$18,974.68	$18,974.68	$0.00						Invoice_65281_1770231310487.pdf	Invoice page only; dry-ton billing quantity and current unit rate.
03/01/2026	66193	Area 4	58.40256	$1,888.33	$110,283.31	$110,283.31	$0.00						Invoice_66193_1772718203075.pdf	Invoice page only; dry-ton billing quantity and current unit rate.
04/01/2026	66681	Area 4	37.37566	$1,888.33	$70,577.58	$70,577.58	$0.00						Invoice_66681_1775063705792.pdf	Invoice page only; dry-ton billing quantity and current unit rate.
05/01/2026	67998	Area 4	16.34618	$1,888.33	$30,866.98	$30,866.98	$0.00						Invoice_67998_1778009028112.pdf	Invoice page only; dry-ton billing quantity and current unit rate.
06/01/2026	68687	Area 4	8.00165	$1,888.33	$15,109.76	$15,109.76	$0.00						Invoice_68687_1780512152657.pdf	Invoice page only; dry-ton billing quantity and current unit rate.
07/01/2026	69254	Area 4	93.90225	$1,888.33	$177,318.44	$177,318.44	$0.00						Invoice_69254_1782920661242.pdf	Invoice page only; dry-ton billing quantity and current unit rate.
07/23/2026	69982	Area 4	6.90253	$1,888.33	$13,034.25	$13,034.25	$0.00						Invoice_69982_1784811383356.pdf	Invoice page only; dry-ton billing quantity and current unit rate.
Supplied Record Total			584.88818		$1,054,482.65			1,175,826.00	1,095.85	47	20.65%	1.93%		

Interpretation: Synagro's invoiced $/DT is a bundled dry-solids-equivalent service rate for dewatering biosolids and hauling wet cake to a composter. It is not a per-wet-ton trucking rate. A 20-wet-ton cake load at 20% total solids contains 4 billed dry tons and approximately 16 tons of water.

Actual Synagro Dewatering, Cake-Hauling, and Billing Summary

The supplied records are individual service campaigns, not a continuous annual ledger. Invoice amounts and billing quantities are reported exactly as supplied. A Synagro 'Dry Ton' is the equivalent mass of dry solids contained in wet centrifuge cake; the cake itself is hauled at approximately 19%-23% total solids in the detailed records.

Supplied Invoice Record

Metric	Value	Unit / Meaning
Record period start	10/31/2019	first supplied invoice
Record period end	07/23/2026	last supplied invoice
Supplied invoices	17	invoice documents / campaigns
Supplied invoice cost	$1,054,482.65	bundled Synagro service cost
Billed dry-solids equivalent	584.88818	dry tons (DT), not wet cake tons
Weighted invoice rate	$1,802.88	$/billed DT across all supplied invoices
Current all-in Synagro rate	$1,888.33	$/billed DT (latest supplied invoices)
Detailed cake loads	47	loads with weight and solids information
Detailed wet cake hauled	1,095.85	wet tons
Overall weighted cake solids	20.65%	detailed 2019-2025 records
Recent weighted cake solids	19.15%	detailed 2024-2025 records
Invoice-calibrated incoming sludge TS	1.93%	2019-2020 processed-gallon records

Planning Normalization at Current Rate

Planning basis	Dry solids (DT/yr)	Current $/DT	Normalized cost
Recent 2023-2025 DMR average	354.80	$1,888.33	$669,985
January-June 2026 annualized	390.06	$1,888.33	$736,562
30-year, no dry-solids growth	10,644.09	$1,888.33	$20,099,563
30-year, 1% annual dry-solids growth	12,341.79	$1,888.33	$23,305,371

The current $1,888.33/DT rate is a bundled service price for dewatering and hauling to a composter. It does not isolate the portion that would remain after the City purchases its own mechanical dewatering equipment. A haul-only/composting quote and City operating-cost estimate are still required for a final avoided-cost analysis.

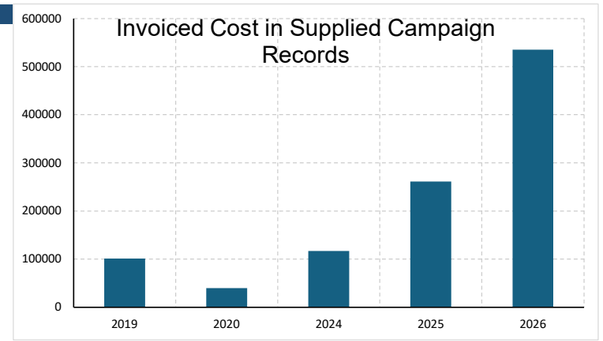
Annual Supplied Invoice Record

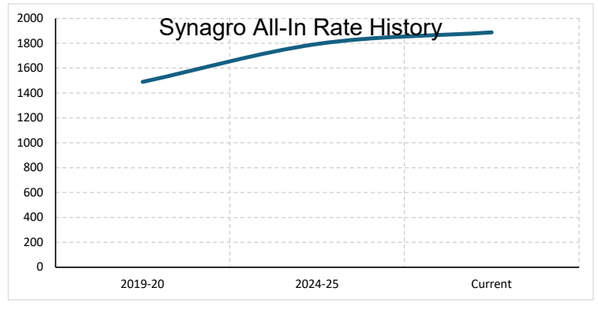
Year	Invoice count	Invoiced cost	Billed dry-solids equivalent	Weighted invoice rate
2019	3	$101,337.16	68.01152	$1,490.00
2020	1	$39,633.18	26.59945	$1,490.00
2024	2	$117,046.47	65.20695	$1,795.00
2025	3	$261,095.27	141.55490	$1,844.48
2026	8.00	$535,370.57	283.51536	$1,888.33

Rate and Cake-Solids History

Evidence	Value	Units	Interpretation	Source
2019-2020 Synagro rate	$1,490.00	$/billed DT	Historical all-in campaign rate	Invoices 10669, 11017, 11838, 12501
2024-2025 Synagro rate	$1,795.00	$/billed DT	Intermediate all-in campaign rate	Invoices 52108, 52717, 59055
Current Synagro rate	$1,888.33	$/billed DT	Latest all-in campaign rate	Invoices Sep. 2025-Jul. 2026
Increase from 2019 to current	26.73%	fraction	26.7% cumulative increase	Calculated
Approximate six-year CAGR	4.03%	fraction/year	Sensitivity only; not a contract escalation forecast	Calculated
2019-2020 weighted cake TS	23.18%	fraction	Detailed wet-cake tickets	18 loads
2024-2025 weighted cake TS	19.15%	fraction	Most recent detailed wet-cake tickets	29 loads
Overall detailed cake TS	20.65%	fraction	All detailed tickets	47 loads

Design use: retain 20% cake solids as a reasonable equipment performance target, with approximately 19.15% as a recent operating sensitivity. The 2019-2020 invoices imply an average incoming liquid-sludge concentration of approximately 1.93% TS (campaign range about 1.16%-2.90%). The 1.0% feed case remains a conservative hydraulic design case.





Year	Invoiced Cost
2019	101337.16
2020	39633.18
2024	117046.47
2025	261095.27
2026	535370.57

Period	All-In Rate
2019-20	1490
2024-25	1795
Current	1888.33

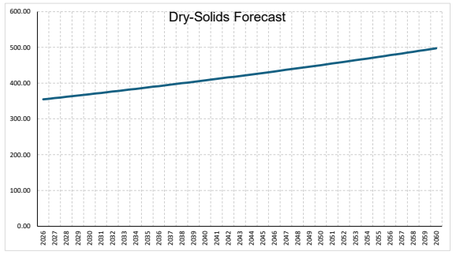
Residuals Cost, Wet-Cake Hauling, and Contractor-Service Forecast

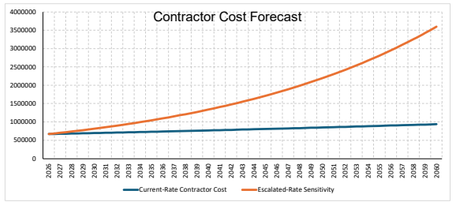
This forecast uses dry-solids mass for process and billing calculations, but reports wet-cake tonnage and truckloads separately. The current Synagro invoice rate is an all-in $/dry-solids-equivalent service rate; it is not a wet-ton hauling rate and does not identify the haul-only/compositing cost that

Planning Inputs		
Planning input	Value	Unit / Source
Base year	2,026.00	year
Base dry solids	35480.32%	DT/year; recent DMR basis
Annual dry-solids growth	$0.01	fraction/year; editable
Current all-in contractor rate	188833.00%	$/billed DT; latest invoices
Invoice rate escalation sensitivity	4.03%	fraction/year; sensitivity only
Incoming liquid-sludge TS	1.00%	fraction; conservative hydraulic case
Thickened sludge TS	3.00%	fraction
Design cake TS	20.00%	fraction
Recent observed cake TS	0.19	fraction
Liquid tanker usable capacity	5,500.00	gal/load
Cake payload	20.00	wet tons/load
Liquid density	8.34	lb/gal

Current Planning Benchmarks					
Benchmark	Recent DMR basis	2026 annualized	Units	Basis	Caution
Annual dry solids	354.80	390.06	DT/year	DMR	
Annual contractor cost	$669,985	$736,562	$/year	current $/DT	bundled dewatering + hauling
Wet cake at 20% TS	1,774	1,950	wet tons/year	dry solids ÷ 20%	
Wet cake at recent observed TS	1,852	2,037	wet tons/year	dry solids ÷ 19.15%	sensitivity
20-wet-ton loads at 20% TS	89	98	loads/year	rounded up	
20-wet-ton loads at observed TS	93	102	loads/year	rounded up	sensitivity

The detailed records support about 20% cake as a reasonable design target, but the 2024-2025 weighted average was approximately 19.15%. At the recent DMR dry-solids basis, that difference increases estimated wet cake from about 1,774 to 1,852 wet tons/year and truckloads from about 89 to 93 per year at a 20-wet-ton payload.





Annual Forecast Through 2060												
Year	Dry solids (DT/yr)	Incoming sludge (gal/yr)	3% thickened sludge (gal/yr)	20% cake (wet tons/yr)	Observed-TS cake (wet tons/yr)	3% tanker loads	20% cake loads	Observed-TS cake loads	Current bundled rate	Current-rate contractor cost	Escalated-rate sensitivity	Escalated contractor cost
2026	354.80	8,508,469	2,836,156	1,774	1,852	516	89	93	$1,888.33	$669,985	$1,888	$669,985
2027	358.35	8,593,554	2,864,518	1,792	1,871	521	90	94	$1,888.33	$676,685	$1,964	$703,940
2028	361.93	8,679,489	2,893,163	1,810	1,890	526	91	95	$1,888.33	$683,452	$2,044	$739,614
2029	365.55	8,766,284	2,922,095	1,828	1,909	531	92	96	$1,888.33	$690,287	$2,126	$777,097
2030	369.21	8,853,947	2,951,316	1,846	1,928	537	93	97	$1,888.33	$697,190	$2,211	$816,479
2031	372.90	8,942,486	2,980,829	1,865	1,947	542	94	98	$1,888.33	$704,161	$2,300	$857,858
2032	376.63	9,031,911	3,010,637	1,883	1,966	547	95	99	$1,888.33	$711,203	$2,393	$901,333
2033	380.40	9,122,230	3,040,743	1,902	1,986	553	96	100	$1,888.33	$718,315	$2,490	$947,011
2034	384.20	9,213,453	3,071,151	1,921	2,006	558	97	101	$1,888.33	$725,498	$2,590	$995,005
2035	388.04	9,305,587	3,101,862	1,940	2,026	564	98	102	$1,888.33	$732,753	$2,694	$1,045,430
2036	391.92	9,398,643	3,132,881	1,960	2,046	570	98	103	$1,888.33	$740,081	$2,803	$1,098,412
2037	395.84	9,492,629	3,164,210	1,979	2,067	575	99	104	$1,888.33	$747,482	$2,915	$1,154,078
2038	399.80	9,587,556	3,195,852	1,999	2,087	581	100	105	$1,888.33	$754,956	$3,033	$1,212,565
2039	403.80	9,683,431	3,227,810	2,019	2,108	587	101	106	$1,888.33	$762,506	$3,155	$1,274,017
2040	407.84	9,780,266	3,260,089	2,039	2,129	593	102	107	$1,888.33	$770,131	$3,282	$1,338,582
2041	411.92	9,878,068	3,292,689	2,060	2,151	599	103	108	$1,888.33	$777,832	$3,414	$1,406,420
2042	416.03	9,976,849	3,325,616	2,080	2,172	605	105	109	$1,888.33	$785,611	$3,552	$1,477,696
2043	420.19	10,076,617	3,358,872	2,101	2,194	611	106	110	$1,888.33	$793,467	$3,695	$1,552,584
2044	424.40	10,177,384	3,392,461	2,122	2,216	617	107	111	$1,888.33	$801,401	$3,844	$1,631,267
2045	428.64	10,279,157	3,426,386	2,143	2,238	623	108	112	$1,888.33	$809,415	$3,999	$1,713,937
2046	432.93	10,381,949	3,460,650	2,165	2,260	629	109	114	$1,888.33	$817,510	$4,160	$1,800,798
2047	437.26	10,485,768	3,495,256	2,186	2,283	636	110	115	$1,888.33	$825,685	$4,327	$1,892,060
2048	441.63	10,590,626	3,530,209	2,208	2,306	642	111	116	$1,888.33	$833,941	$4,501	$1,987,947
2049	446.05	10,696,532	3,565,511	2,230	2,329	648	112	117	$1,888.33	$842,281	$4,683	$2,088,694
2050	450.51	10,803,498	3,601,166	2,253	2,352	655	113	118	$1,888.33	$850,704	$4,871	$2,194,547
2051	455.01	10,911,533	3,637,178	2,275	2,376	661	114	119	$1,888.33	$859,211	$5,067	$2,305,764
2052	459.56	11,020,648	3,673,549	2,298	2,399	668	115	120	$1,888.33	$867,803	$5,272	$2,422,617
2053	464.16	11,130,855	3,710,285	2,321	2,423	675	117	122	$1,888.33	$876,481	$5,484	$2,545,393
2054	468.80	11,242,163	3,747,388	2,344	2,448	681	118	123	$1,888.33	$885,246	$5,705	$2,674,390
2055	473.49	11,354,585	3,784,862	2,367	2,472	688	119	124	$1,888.33	$894,098	$5,935	$2,809,925
2056	478.22	11,468,131	3,822,710	2,391	2,497	695	120	125	$1,888.33	$903,039	$6,174	$2,952,329
2057	483.00	11,582,812	3,860,937	2,415	2,522	702	121	127	$1,888.33	$912,070	$6,422	$3,101,949
2058	487.83	11,698,640	3,899,547	2,439	2,547	709	122	128	$1,888.33	$921,190	$6,681	$3,259,152
2059	492.71	11,815,626	3,938,542	2,464	2,572	716	124	129	$1,888.33	$930,402	$6,950	$3,424,322
2060	497.64	11,933,783	3,977,928	2,488	2,598	723	125	130	$1,888.33	$939,706	$7,230	$3,597,863

30-Year Planning Summary (2026-2055)					
Metric	Value	Units	Calculation	Source/Caution	Review
Dry solids with 1% growth	12,341.79	DT	sum 2026-2055	planning sensitivity	
Contractor cost at current rate	$23,305,371	$	constant current rate	bundled service	
Contractor cost with historical-rate sensitivity	$45,035,444	$	rate escalated at 4.03%/yr	not a contract forecast	sensitivity only
Current annual cost - recent DMR basis	$669,985	$/year	recent dry solids × current rate	bundled service	
Current annual cost - 2026 annualized	$736,562	$/year	2026 annualized dry solids × current rate	bundled service	

Year	Current-Rate Contractor Cost	Escalated-Rate Sensitivity
2026	669985.4351	669985.4351
2027	676685.2895	703939.5067
2028	683452.1423	739614.3306
2029	690286.6638	777097.1124
2030	697189.5304	816479.4775
2031	704161.4257	857857.6943
2032	711203.04	901332.9104
2033	718315.0704	947011.3991
2034	725498.2211	995004.8198
2035	732753.2033	1045430.49
2036	740080.7353	1098411.675
2037	747481.5427	1154077.883
2038	754956.3581	1212565.188
2039	762505.9217	1274016.562
2040	770130.9809	1338582.218
2041	777832.2907	1406419.986
2042	785610.6136	1477695.692
2043	793466.7197	1552583.567
2044	801401.3869	1631266.671
2045	809415.4008	1713937.342
2046	817509.5548	1800797.664
2047	825684.6504	1892059.966
2048	833941.4969	1987947.333
2049	842280.9118	2088694.159
2050	850703.721	2194546.716
2051	859210.7582	2305763.755
2052	867802.8658	2422617.142
2053	876480.8944	2545392.521
2054	885245.7034	2674390.012
2055	894098.1604	2809924.943
2056	903039.142	2952328.625
2057	912069.5334	3101949.157
2058	921190.2287	3259152.281
2059	930402.131	3424322.275
2060	939706.1523	3597862.888

Synagro Cake Load Detail and Solids Calculation

Each row represents a documented wet-cake haul. Dry-solids equivalent = net cake weight ÷ 2,000 × measured solids fraction. The invoice unit 'Dry Ton' normalizes the solids mass for billing; it does not describe a physically dry hauled product.

Invoice #	Invoice Date	Plant	Load Date	Truck / Ticket	Net Weight (lb)	Wet Cake Tons	Source % Solids	Calculated Dry-Solids Eq. (DT)	Reported/Exact Dry-Solids Eq. (DT)	Water in Cake (wet tons)	Dry-Ton Difference	Source File	Notes
10669	10/31/2019	Area 6	10/22/2019	T-9548728 / 32857	42,500	21.25	23.17%	4.92363	4.92363	16.32638	0.00000	INV# 10669.pdf	Exact billed dry tons shown in Synagro detail.
10669	10/31/2019	Area 6	10/24/2019	T-9548731 / 32892	45,800	22.90	23.42%	5.36318	5.36318	17.53682	0.00000	INV# 10669.pdf	Exact billed dry tons shown in Synagro detail.
10669	10/31/2019	Area 6	10/17/2019	T-9543130 / 32788	43,940	21.97	22.07%	4.84878	4.84878	17.12122	0.00000	INV# 10669.pdf	Exact billed dry tons shown in Synagro detail.
11017	11/30/2019	Area 4	11/06/2019	T-9557028	51,840	25.92	19.73%	5.11402	5.11402	20.80598	0.00000	INV# 11017.pdf	Solids fraction derived from exact billed dry tons and net cake weight.
11017	11/30/2019	Area 4	11/07/2019	T-9542169	48,340	24.17	21.86%	5.28356	5.28356	18.88644	0.00000	INV# 11017.pdf	Solids fraction derived from exact billed dry tons and net cake weight.
11017	11/30/2019	Area 4	11/22/2019	T-9593650	61,040	30.52	23.09%	7.04707	7.04707	23.47293	0.00000	INV# 11017.pdf	Solids fraction derived from exact billed dry tons and net cake weight.
11017	11/30/2019	Area 6	11/11/2019	T-9557054	46,900	23.45	23.11%	5.41930	5.41930	18.03071	0.00000	INV# 11017.pdf	Solids fraction derived from exact billed dry tons and net cake weight.
11017	11/30/2019	Area 6	11/20/2019	T-9557030	44,500	22.25	23.17%	5.15533	5.15533	17.09468	0.00000	INV# 11017.pdf	Solids fraction derived from exact billed dry tons and net cake weight.
11017	11/30/2019	Area 6	11/27/2019	T-9593687	38,560	19.28	23.61%	4.55201	4.55201	14.72799	0.00000	INV# 11017.pdf	Solids fraction derived from exact billed dry tons and net cake weight.
11838	12/31/2019	Area 4	12/02/2019	T-9593651 / 33502	45,420	22.71	23.67%	5.37546		17.33454		INV# 11838.pdf	Source table reports wet tons, percent solids, and rounded dry tons.
11838	12/31/2019	Area 4	12/11/2019	T-9593686 / 33697	50,760	25.38	23.76%	6.03105		19.34895		INV# 11838.pdf	Source table reports wet tons, percent solids, and rounded dry tons.
11838	12/31/2019	Area 3	12/17/2019	T-9593684 / 33880	34,040	17.02	24.19%	4.11714		12.90286		INV# 11838.pdf	Source table reports wet tons, percent solids, and rounded dry tons.
11838	12/31/2019	Area 6	12/13/2019	T-9593685 / 33758	39,660	19.83	24.11%	4.78101		15.04899		INV# 11838.pdf	Source table reports wet tons, percent solids, and rounded dry tons.
12501	01/31/2020	Area 4	01/15/2020	T-9593683 / 34304	37,440	18.72	24.46%	4.57891		14.14109		INV# 12501.pdf	Source table reports wet tons, percent solids, and rounded dry tons.
12501	01/31/2020	Area 4	01/27/2020	T-9593680 / 34566	44,080	22.04	24.40%	5.37776		16.66224		INV# 12501.pdf	Source table reports wet tons, percent solids, and rounded dry tons.
12501	01/31/2020	Area 4	01/20/2020	T-9593682 / 34408	43,880	21.94	24.37%	5.34678		16.59322		INV# 12501.pdf	Source table reports wet tons, percent solids, and rounded dry tons.
12501	01/31/2020	Area 6	01/22/2020	T-9593678 / 34453	50,860	25.43	22.18%	5.64037		19.78963		INV# 12501.pdf	Source table reports wet tons, percent solids, and rounded dry tons.
12501	01/31/2020	Area 6	01/23/2020	T-9593681 / 34480	46,760	23.38	24.19%	5.65562		17.72438		INV# 12501.pdf	Source table reports wet tons, percent solids, and rounded dry tons.
52108	10/08/2024	Area 4	09/19/2024	T-1138200	47,520	23.76	18.76%	4.45738		19.30262		Marathon September Invoice.pdf	Source load table; dry tons calculated from wet weight and source percent solids.
52108	10/08/2024	Area 4	09/20/2024	T-1133199	44,900	22.45	18.21%	4.08815		18.36186		Marathon September Invoice.pdf	Source load table; dry tons calculated from wet weight and source percent solids.
52108	10/08/2024	Area 4	09/24/2024	T-1136872	42,540	21.27	19.05%	4.05194		17.21807		Marathon September Invoice.pdf	Source load table; dry tons calculated from wet weight and source percent solids.
52108	10/08/2024	Area 4	09/25/2024	T-1136874	52,900	26.45	18.52%	4.89854		21.55146		Marathon September Invoice.pdf	Source load table; dry tons calculated from wet weight and source percent solids.
52108	10/08/2024	Area 4	09/25/2024	T-1136875	48,400	24.20	18.52%	4.48184		19.71816		Marathon September Invoice.pdf	Source load table; dry tons calculated from wet weight and source percent solids.
52108	10/08/2024	Area 4	09/26/2024	T-1136877	44,520	22.26	18.91%	4.20937		18.05063		Marathon September Invoice.pdf	Source load table; dry tons calculated from wet weight and source percent solids.
52108	10/08/2024	Area 4	09/26/2024	T-1136878	45,380	22.69	18.91%	4.29068		18.39932		Marathon September Invoice.pdf	Source load table; dry tons calculated from wet weight and source percent solids.
52108	10/08/2024	Area 4	09/27/2024	T-1126761	39,220	19.61	18.91%	3.70825		15.90175		Marathon September Invoice.pdf	Source load table; dry tons calculated from wet weight and source percent solids.
52108	10/08/2024	Area 4	09/27/2024	T-1136881	48,180	24.09	18.91%	4.55542		19.53458		Marathon September Invoice.pdf	Source load table; dry tons calculated from wet weight and source percent solids.
52717	11/01/2024	Area 4	09/30/2024	T-1136883	42,340	21.17	18.56%	3.92915		17.24085		Marathon October Invoice.pdf	Source load table; includes late September ticket.
52717	11/01/2024	Area 4	10/01/2024	T-1136885	50,680	25.34	18.72%	4.74365		20.59635		Marathon October Invoice.pdf	Source load table; includes late September ticket.
52717	11/01/2024	Area 4	10/01/2024	T-1136886	46,560	23.28	18.72%	4.35802		18.92198		Marathon October Invoice.pdf	Source load table; includes late September ticket.
52717	11/01/2024	Area 4	10/02/2024	T-1136888	46,740	23.37	18.77%	4.38655		18.98345		Marathon October Invoice.pdf	Source load table; includes late September ticket.
52717	11/01/2024	Area 4	10/02/2024	T-1136889	43,440	21.72	18.77%	4.07684		17.64316		Marathon October Invoice.pdf	Source load table; includes late September ticket.
52717	11/01/2024	Area 4	10/03/2024	T-1189702	49,440	24.72	20.11%	4.97119		19.74881		Marathon October Invoice.pdf	Source load table; includes late September ticket.
59055	07/01/2025	Area 4	05/30/2025	T-1191148	48,100	24.05	18.64%	4.48292	4.48292	19.56708	0.00000	Marathon June Invoice.pdf	Exact dry-ton billing quantity shown in Synagro load table.
59055	07/01/2025	Area 4	06/03/2025	T-1197176	46,440	23.22	19.09%	4.43270	4.43270	18.78730	0.00000	Marathon June Invoice.pdf	Exact dry-ton billing quantity shown in Synagro load table.
59055	07/01/2025	Area 4	06/03/2025	T-1191149	45,760	22.88	19.09%	4.36779	4.36779	18.51221	0.00000	Marathon June Invoice.pdf	Exact dry-ton billing quantity shown in Synagro load table.
59055	07/01/2025	Area 4	06/04/2025	T-1191157	44,440	22.22	19.34%	4.29735	4.29735	17.92265	0.00000	Marathon June Invoice.pdf	Exact dry-ton billing quantity shown in Synagro load table.
59055	07/01/2025	Area 4	06/04/2025	T-1191153	53,220	26.61	19.24%	5.11976	5.11976	21.49024	0.00000	Marathon June Invoice.pdf	Exact dry-ton billing quantity shown in Synagro load table.
59055	07/01/2025	Area 4	06/04/2025	T-1191154	57,040	28.52	19.24%	5.48725	5.48725	23.03275	0.00000	Marathon June Invoice.pdf	Exact dry-ton billing quantity shown in Synagro load table.
59055	07/01/2025	Area 4	06/05/2025	T-1191156	44,780	22.39	19.34%	4.33023	4.33023	18.05977	0.00000	Marathon June Invoice.pdf	Exact dry-ton billing quantity shown in Synagro load table.
59055	07/01/2025	Area 4	06/06/2025	T-1191162	50,940	25.47	19.67%	5.00995	5.00995	20.46005	0.00000	Marathon June Invoice.pdf	Exact dry-ton billing quantity shown in Synagro load table.
59055	07/01/2025	Area 4	06/09/2025	T-1191163	48,600	24.30	19.47%	4.73121	4.73121	19.56879	0.00000	Marathon June Invoice.pdf	Exact dry-ton billing quantity shown in Synagro load table.
59055	07/01/2025	Area 4	06/11/2025	T-1191165	50,680	25.34	20.01%	5.07053	5.07053	20.26947	0.00000	Marathon June Invoice.pdf	Exact dry-ton billing quantity shown in Synagro load table.
59055	07/01/2025	Area 4	06/11/2025	T-1191155	44,180	22.09	20.01%	4.42021	4.42021	17.66979	0.00000	Marathon June Invoice.pdf	Exact dry-ton billing quantity shown in Synagro load table.
59055	07/01/2025	Area 4	06/12/2025	T-1191167	53,700	26.85	20.01%	5.37269	5.37269	21.47732	0.00000	Marathon June Invoice.pdf	Exact dry-ton billing quantity shown in Synagro load table.
59055	07/01/2025	Area 4	06/13/2025	T-1191169	44,460	22.23	19.97%	4.43933	4.43933	17.79067	0.00000	Marathon June Invoice.pdf	Exact dry-ton billing quantity shown in Synagro load table.
Detailed Load Total / Weighted Average						**1,095.85**	**20.65%**	**226.32487**	**226.32487**	**869.52513**			

Observed Cake Solids by Detailed Record Period

Record Period	Loads	Wet Cake Tons	Billed Dry Tons	Weighted Cake TS	Design Interpretation
2019-2020 detailed Synagro records	18	408.16	94.61	23.18%	Historical centrifuge campaigns produced cake averaging above 20% TS.
2024-2025 detailed Synagro records	29	687.69	131.71	19.15%	Recent records average about 19.2% TS; a 20% design target is reasonable but should be verified by procurement guarantees. Use 19% to 20% for current hauling sensitivity; retain 20% as the design target.
All detailed records	47	1,095.85	226.32	20.65%	

Invoice Calibration of Sludge Feed, Wet Cake, and Sidestream Return

The 2019-2020 Synagro records contain both processed liquid gallons and dry-solids-equivalent billing quantities. Together with the detailed wet-cake tickets, they provide an empirical check on incoming sludge concentration, dewatered cake solids, and the water returned by thickening and dewatering.

Dry-Solids-Equivalent Billing Definition

Term	Calculation	Meaning
Wet cake tons	Net cake weight (lb) ÷ 2,000	Physical wet mass hauled
Billed dry-solids equivalent	Wet cake tons × measured cake TS	Equivalent dry-solids mass used for billing
Water in cake	Wet cake tons - dry-solids equivalent	Water that remains in the hauled cake
Example	20 wet tons × 20% TS = 4 DT	The load is still 20 wet tons, not 4 wet tons

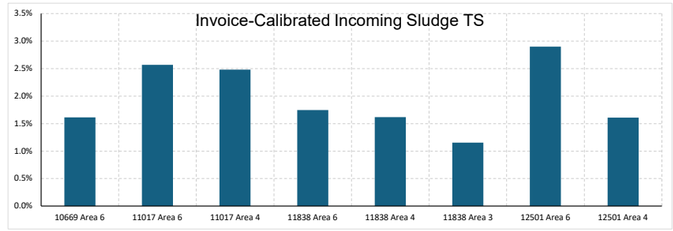
Invoice-Derived Feed and Cake Calibration

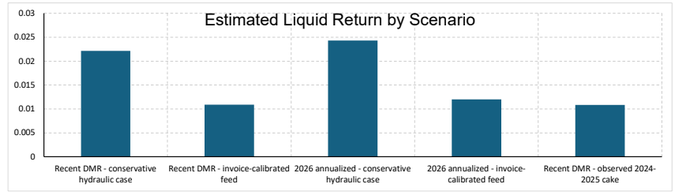
Invoice #	Invoice Date	Facility	Billed Dry-Solids Eq. (DT)	Processed Liquid (gal)	Implied Feed TS	Detailed Wet Cake (tons)	Cake TS	Source File
10669	10/31/2019	Area 6	15.13558	224,866	1.61%	66.12	22.89%	INV# 10669.pdf
11017	11/30/2019	Area 6	15.12663	141,233	2.57%	64.98	23.28%	INV# 11017.pdf
11017	11/30/2019	Area 4	17.44465	168,372	2.48%	80.61	21.64%	INV# 11017.pdf
11838	12/31/2019	Area 6	4.78101	65,602	1.75%	19.83	24.11%	INV# 11838.pdf
11838	12/31/2019	Area 4	11.40651	168,917	1.62%	48.09	23.72%	INV# 11838.pdf
11838	12/31/2019	Area 3	4.11714	85,408	1.16%	17.02	24.19%	INV# 11838.pdf
12501	**01/31/2020**	**Area 6**	**11.29600**	**93,435**	**2.90%**	**48.81**	**23.14%**	**INV# 12501.pdf**
12501	01/31/2020	Area 4	15.30345	227,993	1.61%	62.70	24.41%	INV# 12501.pdf
Invoice-Calibrated Total / Weighted Average			**94.61097**	**1,175,826**	**1.93%**	**408.16**	**23.18%**	

Hydraulic and Hauling Design Scenarios

Scenario	Annual Dry Solids	Feed TS	Cake TS	Incoming Sludge (gpd)	Cake Volume (gpd)	Liquid Return (gpd)	Return (MGD)	Return / Area 6 ADF	Annual Wet Cake Tons	20-ton Loads/Year	Contractor Cost at Current Rate
Recent DMR - conservative hydraulic case	354.80	1.00%	20.00%	23,311	1,166	22,145	0.022	18.8%	1,774	89	$669,985
Recent DMR - invoice-calibrated feed	354.80	1.93%	20.00%	12,081	1,166	10,915	0.011	9.3%	1,774	89	$669,985
2026 annualized - conservative hydraulic case	390.06	1.00%	20.00%	25,627	1,281	24,346	0.024	20.7%	1,950	98	$736,562
2026 annualized - invoice-calibrated feed	390.06	1.93%	20.00%	13,281	1,281	12,000	0.012	10.2%	1,950	98	$736,562
Recent DMR - observed 2024-2025 cake	354.80	1.93%	19.15%	12,081	1,217	10,864	0.011	9.2%	1,852	93	$669,985

Design interpretation: the invoice-calibrated feed concentration of approximately 1.93% is materially higher than the conservative 1.0% case. The 1.0% case therefore remains appropriate for conservative hydraulic sizing, while 1.93% is a defensible operating calibration. The detailed cake records support a 20% design target, but recent records average approximately 19.15%; equipment procurement should include a guaranteed cake-solids range and performance testing. These records do not establish sidestream BOD, ammonia, TKN, phosphorus, alkalinity, TSS, or temperature.





Campaign	Feed TS
10669 Area 6	0.016141326
11017 Area 6	0.025684431
11017 Area 4	0.024845992
11838 Area 6	0.017476985
11838 Area 4	0.016193599
11838 Area 3	0.011560085
12501 Area 6	0.028992058
12501 Area 4	0.016096512

Scenario	Return MGD
Recent DMR - conservative hydraulic case	0.02214533
Recent DMR - invoice-calibrated feed	0.010915269
2026 annualized - conservative hydraulic case	0.024345915
2026 annualized - invoice-calibrated feed	0.011999922
Recent DMR - observed 2024-2025 cake	0.010863732

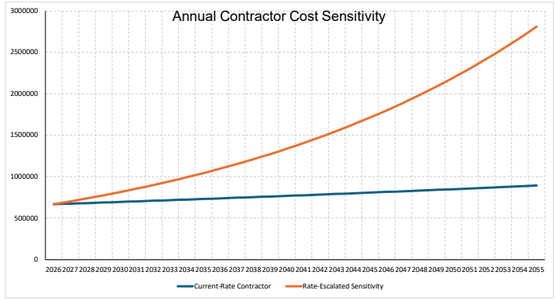
Mechanical Dewatering Economics and Break-Even Analysis

Synagro invoices provide an all-in dry-solids-equivalent service rate for dewatering biosolids and hauling wet cake to a composter. They do not identify a haul-only/composting rate. This sheet separates the documented contractor baseline from the preliminary capital allowance for City-owned mechanical dewatering and calculates the retained-cost rate that would produce break-even over 30 years.

Planning Inputs		
Input	Value	Unit / Source
Recent dry-solids basis	354.80	DT/year; Inputs
2026 annualized dry-solids indicator	390.06	DT/year; Inputs
Annual dry-solids growth	1.00%	fraction/year; editable sensitivity
Analysis period	30	years
Current all-in Synagro rate	$1,888.33	$/billed DT; latest invoices
Historical rate-escalation sensitivity	4.03%	fraction/year; not a contract forecast
Initial City-owned equipment allowance	$1,400,000	installed dollars; preliminary
Replacement interval	20	years; planning assumption
Replacement events within analysis	1	event after initial installation
Total City-owned equipment capital	$2,800,000.00	initial plus one replacement
Retained haul/disposal + City O&M rate		$/DT; CITY/VENDOR INPUT REQUIRED
Deferral period for purchase alternative	5	years; editable

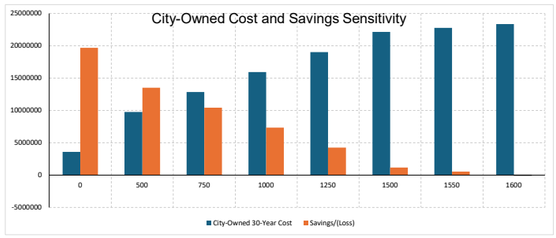
30-Year Cost Benchmarks				
Benchmark	No growth	1% dry-solids growth	Units	Interpretation
Total dry solids	10,644.09	12,341.79	DT	through 30 years
Current contractor cost at current rate	$20,099,563	$23,305,371	$	constant-dollar current-rate basis
City-owned equipment capital	$2,800,000	$2,800,000	$	initial allowance plus one replacement
Capital equivalent	$263.06	$226.87	$/DT	equipment capital only
Break-even retained-cost allowance	$1,625.27	$1,661.46	$/DT	haul/disposal + City O&M
Current annual contractor cost	$669,985.44	$736,562.00	$/year	recent basis / 2026 indicator

Break-even interpretation: under a constant current-rate comparison, a $1.8 million initial mechanical-dewatering allowance plus one equal replacement is equivalent to about $338/DT with no dry-solids growth, or about $292/DT with 1% growth. The remaining approximately $1,550-$1,597/DT is the maximum combined retained hauling/composting and City operating cost before the City-owned alternative reaches the current bundled Synagro cost. This is a screening calculation, not a final life-cycle estimate.



Retained-Cost Sensitivity (1% Dry-Solids Growth)				
Retained variable cost	30-year City-owned cost	30-year contractor cost	Estimated savings/(loss)	City-owned cost per DT
$0	$3,600,000	$23,305,371	$19,705,371	$292
$500	$9,770,895	$23,305,371	$13,534,476	$792
$750	$12,856,342	$23,305,371	$10,449,029	$1,042
$1,000	$15,941,789	$23,305,371	$7,363,582	$1,292
$1,250	$19,027,236	$23,305,371	$4,278,134	$1,542
$1,500	$22,112,684	$23,305,371	$1,192,687	$1,792
$1,550	$22,729,773	$23,305,371	$575,598	$1,842
$1,600	**$23,346,863**	**$23,305,371**	**-$41,492**	**$1,892**

Current and Historical Rate Context		
Rate evidence	$/DT	Change
2019-2020 invoices	$1,490.00	0.00%
2024-2025 invoices	$1,795.00	20.47%
Current invoices	$1,888.33	26.73%
Current vs. 2019		26.73%
Approximate annualized change		4.03%



Annual Projection and Cumulative Cost								
Year	Dry solids (DT)	Current bundled rate	Contractor annual cost	Escalated rate sensitivity	Escalated contractor cost	City capital event	Cumulative current-rate contractor	Cumulative City capital only
2026	354.80	$1,888.33	$669,985.44	$1,888.33	$669,985.44	$1,400,000	$669,985	$1,400,000
2027	358.35	$1,888.33	$676,685.29	$1,964.38	$703,939.51	$0	$1,346,671	$1,400,000
2028	361.93	$1,888.33	$683,452.14	$2,043.50	$739,614.33	$0	$2,030,123	$1,400,000
2029	365.55	$1,888.33	$690,286.66	$2,125.81	$777,097.11	$0	$2,720,410	$1,400,000
2030	369.21	$1,888.33	$697,189.53	$2,211.43	$816,479.48	$0	$3,417,599	$1,400,000
2031	372.90	$1,888.33	$704,161.43	$2,300.49	$857,857.69	$0	$4,121,760	$1,400,000
2032	376.63	$1,888.33	$711,203.04	$2,393.15	$901,332.91	$0	$4,832,964	$1,400,000
2033	380.40	$1,888.33	$718,315.07	$2,489.53	$947,011.40	$0	$5,551,279	$1,400,000
2034	384.20	$1,888.33	$725,498.22	$2,589.80	$995,004.82	$0	$6,276,777	$1,400,000
2035	388.04	$1,888.33	$732,753.20	$2,694.11	$1,045,430.49	$0	$7,009,530	$1,400,000
2036	391.92	$1,888.33	$740,080.74	$2,802.62	$1,098,411.67	$0	$7,749,611	$1,400,000
2037	395.84	$1,888.33	$747,481.54	$2,915.50	$1,154,077.88	$0	$8,497,092	$1,400,000
2038	399.80	$1,888.33	$754,956.36	$3,032.92	$1,212,565.19	$0	$9,252,049	$1,400,000
2039	403.80	$1,888.33	$762,505.92	$3,155.08	$1,274,016.56	$0	$10,014,555	$1,400,000
2040	407.84	$1,888.33	$770,130.98	$3,282.15	$1,338,582.22	$0	$10,784,686	$1,400,000
2041	411.92	$1,888.33	$777,832.29	$3,414.34	$1,406,419.99	$0	$11,562,518	$1,400,000
2042	416.03	$1,888.33	$785,610.61	$3,551.86	$1,477,695.69	$0	$12,348,128	$1,400,000
2043	420.19	$1,888.33	$793,466.72	$3,694.91	$1,552,583.57	$0	$13,141,595	$1,400,000
2044	424.40	$1,888.33	$801,401.39	$3,843.73	$1,631,266.67	$0	$13,942,997	$1,400,000
2045	428.64	$1,888.33	$809,415.40	$3,998.54	$1,713,937.34	$0	$14,752,412	$1,400,000
2046	432.93	$1,888.33	$817,509.55	$4,159.58	$1,800,797.66	$1,400,000	$15,569,922	$2,800,000
2047	437.26	$1,888.33	$825,684.65	$4,327.12	$1,892,059.97	$0	$16,395,606	$2,800,000
2048	441.63	$1,888.33	$833,941.50	$4,501.40	$1,987,947.33	$0	$17,229,548	$2,800,000
2049	446.05	$1,888.33	$842,280.91	$4,682.69	$2,088,694.16	$0	$18,071,829	$2,800,000
2050	450.51	$1,888.33	$850,703.72	$4,871.29	$2,194,546.72	$0	$18,922,532	$2,800,000
2051	455.01	$1,888.33	$859,210.76	$5,067.49	$2,305,763.75	$0	$19,781,743	$2,800,000
2052	459.56	$1,888.33	$867,802.87	$5,271.59	$2,422,617.14	$0	$20,649,546	$2,800,000
2053	464.16	$1,888.33	$876,480.89	$5,483.91	$2,545,392.52	$0	$21,526,027	$2,800,000
2054	468.80	$1,888.33	$885,245.70	$5,704.78	$2,674,390.01	$0	$22,411,273	$2,800,000
2055	473.49	$1,888.33	$894,098.16	$5,934.54	$2,809,924.94	$0	$23,305,371	$2,800,000

Critical remaining input: the invoice record demonstrates the current bundled contractor cost, but it does not separate cake transportation, composting/disposal, polymer, mobile equipment, labor, fuel, maintenance, or operator support. Before using the City-owned option as a final SRF life-cycle-cost result, obtain a haul-only/composting quote and an equipment-specific annual O&M estimate.

Year	Current-Rate Contractor	Rate-Escalated Sensitivity	Retained Cost	City-Owned 30-Year Cost	Savings/(Loss)
2026	669985.4351	669985.4351	0	3600000	19705370.69
2027	676685.2895	703939.5067	500	9770894.571	13534476.12
2028	683452.1423	739614.3306	750	12856341.86	10449028.83
2029	690286.6638	777097.1124	1000	15941789.14	7363581.548
2030	697189.5304	816479.4775	1250	19027236.43	4278134.262
2031	704161.4257	857857.6943	1500	22112683.71	1192686.977
2032	711203.04	901332.9104	1550	22729773.17	575597.5201
2033	718315.0704	947011.3991	1600	23346862.63	-41491.93694
2034	725498.2211	995004.8198			
2035	732753.2033	1045430.49			
2036	740080.7353	1098411.675			
2037	747481.5427	1154077.883			
2038	754956.3581	1212565.188			
2039	762505.9217	1274016.562			
2040	770130.9809	1338582.218			
2041	777832.2907	1406419.986			
2042	785610.6136	1477695.692			
2043	793466.7197	1552583.567			
2044	801401.3869	1631266.671			
2045	809415.4008	1713937.342			
2046	817509.5548	1800797.664			
2047	825684.6504	1892059.966			
2048	833941.4969	1987947.333			
2049	842280.9118	2088694.159			
2050	850703.721	2194546.716			
2051	859210.7582	2305763.755			
2052	867802.8658	2422617.142			
2053	876480.8944	2545392.521			
2054	885245.7034	2674390.012			
2055	894098.1604	2809924.943			

Area 6 Residuals Alternatives – Life-Cycle Cost Inputs

Blue/yellow cells are editable planning inputs. Green values are linked to the DMR/invoice workbook. Base case uses a 30-year operating period beginning in 2030, 3% present-worth discounting, and category-specific escalation. Local

Category	Input	Base	Low	High	Units	Source / Rationale	Review Status
ANALYSIS BASIS							
Analysis	Base price / present-worth year	2026			year	Current price basis for supplied invoices and planning costs.	Editable
Analysis	Initial capital expenditure year	2027			year	Planning timing; update to accepted implementation schedule.	Editable
Analysis	First full operating year	2030			year	Consistent with the 2023 planning document assessment period; editable.	Editable
Analysis	Operating analysis period	30			years	Facilities-plan life-cycle period.	Planning basis
Analysis	Present-worth discount rate	3.0%	0.0%	3.0%	fraction/year	3% sensitivity presented in addition to undiscounted constant-dollar totals.	Editable
Solids forecast	Dry-solids base year	2026			year	Base-year alignment for DMR production.	Formula basis
Solids forecast	Recent dry-solids planning basis	354.8			dry tons/year	Linked to 2023-2025 annualized system DMR average.	Linked
Solids forecast	Annual dry-solids growth – base case	1.0%	0.0%	1.5%	fraction/year	Base sensitivity; high case links to flow-proportional planning growth.	Editable
Solids forecast	Flow-proportional annual growth sensitivity	1.5%			fraction/year	Derived from Juturna 0.95-to-1.65 MGD planning flow increase.	Linked
CURRENT SYNAGRO BUNDLED SERVICE							
Synagro	Current rate year	2026			year	Latest supplied invoice period.	Source-backed
Synagro	Current bundled all-in rate	$1,888.33			$/billed dry-solids-equivalent ton	City invoices; includes dewatering and cake hauling/disposition.	Linked
Synagro	Contract minimum annual escalation	2.0%			fraction/year	City contract: CPI or 2%, whichever is greater.	Source-backed
Synagro	Expected annual escalation – base case	3.0%	2.0%	5.2%	fraction/year	Conservative planning value between the 2% floor and recent 5.2% adjustment.	Editable
Synagro	Historical invoice-rate CAGR	4.0%			fraction/year	Approximate 2019-current invoice rate change.	Linked sensitivity
Synagro	Recent documented annual adjustment	5.2%			fraction/year	City Resolution 2025-79 increased rate 5.2% to $1,888.33/DT.	Source-backed sensitivity
IDENTIFIED CAPITAL AND REPLACEMENT ASSUMPTIONS							
Capital	Identified common Area 6 residuals-processing equipment	$2,150,000			$ (2026)	Current Phase IVB estimate: $1.85 million membrane biothickening plus $0.30 million truck receiving and raw/sludge lift stations. Excludes City-owned mechanical dewatering and shared treatment, tank, building, site, and DIW infrastructure.	Source-backed minimum
Capital	Shared tank/building/site capital allocated to residuals alternatives	-	-		$ (2026)	Base ranking excludes shared DIW/Area 6 infrastructure; enter allocation for sensitivity.	CITY/APEX REVIEW
Capital	Permanent City-owned mechanical-dewatering system allowance	$1,400,000	$1,400,000	$1,800,000	$ (2026)	Planning allowance including equipment and immediate appurtenances; final vendor estimate required.	Editable
Capital	Liquid-sludge load-out allowance	$250,000	$100,000	$500,000	$ (2026)	Planning allowance for pumps, piping, controls, loading connection, and containment.	Editable
Capital	Distributed/mobile site and mobility allowance	$750,000	$500,000	$1,000,000	$ (2026)	Planning allowance for multiple plant connections, pads, utilities, transport, and setup.	Editable
Capital	City self-haul tractor/trailer/container allowance	$500,000	$350,000	$750,000	$ (2026)	Planning allowance; vendor/fleet quote required.	Editable
Replacement	Common process equipment replacement timing after startup	60.0%	40.0%	80.0%	fraction of initial common equipment	Captures MBT, blowers, pumps, I&C and related shorter-lived equipment.	Editable
Replacement	Liquid load-out replacement allowance	15			years	Planning useful-life midpoint for major mechanical renewal.	Editable
Replacement	Mechanical dewatering major overhaul allowance	50.0%	25.0%	100.0%	fraction of initial load-out	Pumps, controls, and loading equipment renewal.	Editable
Replacement	Mechanical dewatering overhaul timing	20.0%	10.0%	30.0%	fraction of initial dewatering capital	Planning overhaul reserve.	Editable
Replacement	Mechanical dewatering replacement allowance	10			years after startup	Planning assumption.	Editable
Replacement	Mechanical dewatering replacement timing	100.0%	75.0%	125.0%	fraction of initial dewatering capital	Full replacement within the 30-year period.	Editable
Replacement	Self-haul fleet replacement interval	20			years after startup	Planning assumption.	Editable
Capital	Future replacement capital escalation	10			years	Planning assumption.	Editable
Timing	Deferral period for permanent facility	2.5%	2.0%	4.0%	fraction/year	Nominal replacement-cost escalation.	Editable
Timing	Deferred remobilization/integration premium	5			years	Timing alternative retains Synagro before later construction.	Editable
		15.0%	10.0%	25.0%	fraction of deferred initial capital	Captures separate mobilization, retrofit, outage, and duplicate-construction exposure.	Editable
LIQUID-SLUDGE HAULING ASSUMPTIONS							
Liquid hauling	First-stage thickened sludge concentration	2.0%			fraction TS	Requested 2% hauling case.	Design basis
Liquid hauling	Second-stage thickened sludge concentration	3.0%			fraction TS	Requested 3% hauling case.	Design basis
Liquid hauling	Liquid/slurry density	8.34			lb/gal	Water-equivalent planning density.	Linked
Liquid hauling	Usable liquid tanker capacity	5,500.0	5,000.0	6,500.0	gal/load	Existing workbook planning basis; replace with hauler quote.	Linked/editable
Liquid hauling	Round-trip distance to accepting facility	300	150	400	miles/load	Planning placeholder; destination and route are not yet established.	CRITICAL LOCAL INPUT
Liquid hauling	Contracted liquid-tanker transportation rate	$5.50	$4.00	$7.00	$/mile	Planning placeholder reflecting specialized tanker and Keys logistics.	CRITICAL LOCAL INPUT
Liquid hauling	Fixed liquid load/manifest allowance	$100.00	-	$250.00	$/load	Planning allowance.	Editable
Liquid hauling	Liquid accepting-facility fee	$25.00	-	$75.00	$/1,000 gal	Planning placeholder; receiving facility must confirm acceptance and price.	CRITICAL LOCAL INPUT
Liquid hauling	Central receiving/thickening/loading O&M	$125.00	$75.00	$200.00	$/dry ton	Planning labor, power, chemicals, maintenance, testing, and loading O&M.	Editable
Liquid hauling	Central liquid-handling fixed O&M	$25,000	$10,000	$50,000	$/year	Planning annual fixed cost.	Editable
DEWATERED-CAKE HAULING AND DISPOSITION ASSUMPTIONS							
Cake hauling	Dewatered cake total solids – design basis	20.0%	19.2%	25.0%	fraction TS	20% target supported by detailed Synagro ticket history.	Linked/design
Cake hauling	Recent invoice-weighted cake solids	19.2%			fraction TS	2024-2025 detailed Synagro ticket basis.	Linked
Cake hauling	Usable cake payload	20.0	18.0	22.0	wet tons/load	Planning trailer payload; replace with hauler/fleet quote.	Linked/editable
Cake hauling	Public haul/disposition benchmark – low	$102.00			$/wet ton	Miami-Dade 2025 CompostUSA award; not a Marathon quote.	Benchmark
Cake hauling	Public haul/disposition benchmark – middle	$159.13			$/wet ton	Miami-Dade 2025 EPIC award; not a Marathon quote.	Benchmark
Cake hauling	Bundled contracted cake haul/disposition – base	$185.36	$102.00	$250.00	$/wet ton	Conservative high public benchmark; local quote required.	Editable benchmark
Cake hauling	Round-trip distance for haul-only contract	300	150	400	miles/load	Planning placeholder; use actual accepting-facility route.	CRITICAL LOCAL INPUT
Cake hauling	Contracted cake haul-only rate	$4.50	$3.50	$6.50	$/mile	Planning placeholder for tractor/trailer transport.	CRITICAL LOCAL INPUT
Cake hauling	Fixed cake load/manifest allowance	$100.00	-	$250.00	$/load	Planning allowance.	Editable
Cake hauling	City-direct accepting-facility tipping fee	$75.00	$50.00	$125.00	$/wet ton	Planning placeholder; direct facility agreement/quote required.	CRITICAL LOCAL INPUT
Cake hauling	Derived haul-only + direct-tip equivalent at full payload	$147.50			$/wet ton	Formula excludes partial-load effect; annual model uses rounded loads.	Formula
CITY-OWNED / CONTRACT-OPERATED DEWATERING ASSUMPTIONS							
Dewatering O&M	City-operated dewatering and residuals O&M	$350.00	$250.00	$550.00	$/dry ton	Planning labor, polymer, power, washwater, maintenance, testing, and consumables.	Editable
Dewatering O&M	City-operated fixed O&M	$25,000	$10,000	$50,000	$/year	Planning annual fixed maintenance/admin reserve.	Editable
Dewatering O&M	Contract operation of City-owned equipment	$450.00	$350.00	$650.00	$/dry ton	Planning benchmark informed by public dewatering contracts; local quote required.	CRITICAL LOCAL INPUT
Distributed/mobile	City-owned mobile/distributed dewatering O&M	$400.00	$300.00	$600.00	$/dry ton	Includes higher setup, travel, and multi-site handling burden.	Editable
Distributed/mobile	Annual mobile mobilization/site burden	$75,000	$50,000	$125,000	$/year	Planning allowance for repeated setup, cleaning, transport, and site coordination.	Editable
Self-haul	City fleet variable vehicle cost	$3.50	$2.75	$5.00	$/mile	Fuel, maintenance, tires, and operating reserve; excludes driver/admin.	Editable
Self-haul	City driver/admin allowance	$250.00	$150.00	$500.00	$/load	Loaded labor, manifests, washout, and incidentals.	Editable
Self-haul	City-direct tipping fee for self-haul	$75.00	$50.00	$125.00	$/wet ton	Planning placeholder; receiving-facility quote required.	CRITICAL LOCAL INPUT
Self-haul	Annual fleet fixed cost	$35,000	$20,000	$60,000	$/year	Insurance, registration, inspections, reserve unit/backup, and fixed maintenance.	Editable
O&M escalation	City/hauling/tipping annual escalation	2.5%	2.0%	4.0%	fraction/year	Applied consistently to City and third-party retained O&M costs.	Editable
ALTERNATIVES RANKING WEIGHTS							
Ranking	Life-cycle cost weight	50.0%			fraction	Combined cost/non-cost score; editable.	Editable
Ranking	Non-cost criteria weight	50.0%			fraction	Combined cost/non-cost score; editable.	Editable

PUBLIC CONTRACT / BENCHMARK SOURCE REGISTER

Source	Metric	Value	Units	Use in model	Comparability limitation	Official URL / File	Status
City of Marathon / Synagro 2024 contract	Bundled current-service structure	1,888.33	$/billed DT	Status-quo baseline	Current invoices establish price; contract bundles dewatering and cake hauling/disposition.	https://www.ci.marathon.fl.us/sites/default/files/fileattachments/ordinance/32738/resolution_2024-52.pdf	Official
City of Marathon 2025 renewal	Annual rate adjustment	0.05	fraction	High escalation sensitivity	Single-year adjustment; not guaranteed every year.	https://www.ci.marathon.fl.us/sites/default/files/fileattachments/city_council/meeting/32993/2025-79_resolution.pdf	Official
Miami-Dade 2025 biosolids contracts	Cake haul/disposition range	102.00 / 159.13 / 185.36	$/wet ton	Cake hauling/disposition benchmark	Large-volume mainland system; Marathon route and outlet economics may be higher.	https://www.miamidade.gov/govaction/legistarfiles/Matters/Y2025/251073.pdf	Official benchmark
Fort Worth / Synagro public contract	Processing rate before dryer	396.50	$/DT	Contract-operation context	Very large system; service scope and scale differ from Marathon.	https://fortworthgov.legistar.com/LegislationDetail.aspx?ID=6471606&GUID=51B07AC1-D069-43BA-AD4E-46724970729F	Official benchmark

Brunswick County public solicitation	Historical dewatering/removal/disposal	415.00	$/DT	Dewatering O&M context	Drinking-water residuals and larger volume; not directly comparable.	https://www.brunswickcountync.gov/DocumentCenter/View/5826/Addendum-No-1-for-Dewatering-Removal-and-Disposal-of-Water-Treatment-Residuals?bidId=315	Official benchmark
Cumberland County Utilities Authority 2026 award	Liquid sludge haul-only	0.08	$/gal	Lower-bound liquid-haul sensitivity	New Jersey haul-only award; excludes Marathon distance and may exclude accepting-facility charge.	https://www.ccua.info/wp-content/uploads/2026/02/C-H-RESOLUTION-02-26-2026.pdf	Official lower bound
Phase IVB Detailed Construction Costs.pdf	Digester/sludge processing equipment subtotal	2,150,000.00	$	Common identified residuals capital	Does not include permanent City-owned dewatering device or allocated shared tank/building/site costs.	Phase IVB Detailed Construction Costs.pdf	Project source
DIW SRF Appendices Combined 241205.pdf	Planning method	30.00	years	Analysis period and cost/non-cost screening context	The amendment model adds escalation and 3% present-worth sensitivity.	DIW SRF Appendices Combined 241205.pdf	Project source

Residuals Alternatives – Annual Cash Flow, Present Worth, and Constant-Dollar Mode

Annual model begins in the 2026 price/present-worth year and includes capital, 30 full operating years (2030-2059), dry-solids growth, integer truckloads, category-specific escalation, equipment overhaul/replacement, and a 3% present-worth calculation.

PHYSICAL LOADING AND HAULING								NOMINAL ESCALATED ANNUAL COST							PRESENT VALUE BY YEAR								CONSTANT 2026-DOLLAR ANNUAL COST								CUMULATIVE NOMINAL COST							
Year	Year Index	Operating Year	Discount Factor	Dry Solids (DT)	Wet Cake (wet ton)	Cake Loads	Liquid @2% (gal)	2% Tanker Loads	Liquid @3% (gal)	3% Tanker Loads	Synagro	Liquid 2%	Liquid 3%	City + bundled haul	City + direct tip	City self-haul	Contract operation	Deferred 5 yrs	Mobile/distributed	Synagro	Liquid 2%	Liquid 3%	City + bundled haul	City + direct tip	City self-haul	Contract operation	Deferred 5 yrs	Mobile/distributed	Synagro	Liquid 2%	Liquid 3%	City + bundled haul	City + direct tip	City self-haul	Contract operation	Deferred 5 yrs	Mobile/distributed
2,026	-	-	1.0000	354.8	1,774.0	89.0	4,254,234.4	774.0	2,836,156.3	516.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2,027	1	-	0.9709	358.4	1,791.8	90.0	4,296,776.8	782.0	2,864,517.8	521.0	-	$2,400,000	$2,400,000	$3,550,000	-	$4,050,000	$3,550,000	-	$2,150,000	-	$2,330,097	$2,330,097	$3,446,602	-	$3,932,039	$3,446,602	-	$2,087,379	-	$2,400,000	$2,400,000	$3,550,000	-	$4,050,000	$3,550,000	-	$2,150,000	-	$2,400,000	$2,400,000	$3,550,000	-	$4,050,000	$3,550,000	-	$2,150,000
2,028	2	-	0.9426	361.9	1,809.7	91.0	4,339,744.5	790.0	2,893,163.0	527.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	$2,400,000	$2,400,000	$3,550,000	$3,550,000	$4,050,000	$3,550,000	-	$2,150,000
2,029	3	-	0.9151	365.6	1,827.8	92.0	4,383,142.0	797.0	2,922,094.7	532.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	$2,400,000	$2,400,000	$3,550,000	$3,550,000	$4,050,000	$3,550,000	-	$2,150,000
2,030	4	1	0.8885	369.2	1,846.0	93.0	4,426,973.4	805.0	2,951,315.6	537.0	$784,693	$1,755,698	$1,197,288	$547,940	$471,911	$495,145	$485,088	$784,693	$623,508	$697,190	$1,559,915	$1,063,775	$486,838	$419,286	$439,930	$430,977	$697,190	$553,979	$697,190	$1,590,576	$1,084,684	$496,407	$427,527	$448,577	$439,448	$697,190	$564,867	$784,693	$4,155,698	$3,597,288	$4,097,940	$4,021,910	$4,545,145	$4,035,068	$784,693	$2,773,508
2,031	5	2	0.8626	372.9	1,864.5	94.0	4,471,243.1	813.0	2,980,828.4	542.0	$816,316	$1,817,204	$1,238,477	$566,972	$488,377	$512,023	$502,282	$816,316	$644,638	$704,161	$1,567,536	$1,068,321	$489,075	$421,278	$441,676	$433,273	$704,161	$556,070	$704,161	$1,606,144	$1,094,633	$501,121	$431,654	$452,554	$443,944	$704,161	$569,766	$1,601,009	$5,972,902	$4,835,766	$4,684,912	$4,510,286	$5,057,168	$4,537,350	$1,601,009	$3,418,146
2,032	6	3	0.8375	376.6	1,883.2	95.0	4,515,955.6	822.0	3,010,637.0	548.0	$849,214	$1,882,736	$1,283,021	$586,668	$505,403	$529,466	$520,088	$849,214	$666,492	$711,203	$1,576,762	$1,074,510	$491,325	$423,267	$443,420	$435,566	$711,203	$558,176	$711,203	$1,623,478	$1,106,345	$505,882	$435,807	$456,557	$448,470	$711,203	$574,714	$2,450,223	$7,855,638	$6,118,786	$5,251,581	$5,015,689	$5,586,634	$5,057,438	$2,450,223	$4,084,637
2,033	7	4	0.8131	380.4	1,902.0	96.0	4,561,115.1	830.0	3,040,743.4	553.0	$883,437	$1,948,348	$1,326,952	$607,051	$523,007	$547,494	$538,507	$883,437	$689,094	$718,315	$1,584,185	$1,078,933	$493,588	$425,253	$445,163	$437,856	$718,315	$560,296	$718,315	$1,639,078	$1,116,318	$510,691	$439,988	$460,588	$453,028	$718,315	$579,711	$3,333,660	$9,803,987	$7,445,738	$5,858,632	$5,538,696	$6,134,129	$5,595,945	$3,333,660	$4,773,731
2,034	8	5	0.7894	384.2	1,921.0	97.0	4,606,726.3	838.0	3,071,150.9	559.0	$919,039	$2,016,083	$1,374,424	$628,145	$541,209	$566,126	$557,560	$919,039	$712,471	$725,498	$1,591,515	$1,084,983	$495,863	$427,236	$446,905	$440,143	$725,498	$562,431	$725,498	$1,654,693	$1,128,054	$515,548	$444,196	$464,646	$457,616	$725,498	$584,758	$4,252,699	$11,820,070	$8,820,162	$6,486,777	$6,079,906	$6,700,254	$6,153,506	$4,252,699	$5,486,202
2,035	9	6	0.7664	388.0	1,940.2	98.0	4,652,793.5	846.0	3,101,862.4	564.0	$956,077	$2,086,007	$1,421,271	$649,975	$560,029	$585,381	$577,269	$5,534,159	$736,649	$732,753	$1,598,751	$1,089,286	$498,152	$429,216	$448,646	$442,428	$4,241,472	$564,580	$732,753	$1,670,325	$1,138,052	$520,453	$448,431	$468,731	$462,235	$4,530,931	$589,855	$5,208,776	$13,906,077	$10,241,433	$7,136,751	$6,639,935	$7,285,635	$6,730,775	$9,786,858	$6,222,850
2,036	10	7	0.7441	391.9	1,959.6	98.0	4,699,321.5	855.0	3,132,881.0	570.0	$994,607	$2,160,429	$1,471,857	$672,566	$577,631	$603,617	$595,798	$577,631	$761,655	$740,081	$1,607,562	$1,095,200	$500,453	$429,812	$449,148	$443,330	$429,812	$566,743	$740,081	$1,687,723	$1,149,812	$525,408	$451,244	$471,544	$465,437	$451,244	$595,004	$6,203,382	$16,066,506	$11,713,290	$7,809,318	$7,217,566	$7,889,252	$7,326,573	$10,364,489	$6,984,506
2,037	11	8	0.7224	395.8	1,979.2	99.0	4,746,314.7	863.0	3,164,259.8	576.0	$1,034,689	$2,234,993	$1,524,101	$695,946	$597,703	$624,141	$616,838	$597,703	$787,520	$747,482	$1,614,606	$1,101,043	$502,766	$431,793	$450,893	$445,617	$431,793	$568,921	$747,482	$1,703,388	$1,161,586	$530,412	$455,536	$475,686	$470,120	$455,536	$600,204	$7,238,072	$18,301,499	$13,237,391	$8,505,264	$7,815,268	$8,513,393	$7,943,412	$10,962,192	$7,772,025
2,038	12	9	0.7014	399.8	1,999.0	100.0	4,793,777.8	872.0	3,195,851.9	582.0	$1,076,387	$2,314,311	$1,578,054	$720,142	$618,455	$645,353	$638,601	$618,455	$814,271	$754,956	$1,623,211	$1,106,815	$505,093	$433,772	$452,637	$447,902	$433,772	$571,113	$754,956	$1,720,820	$1,173,371	$535,466	$459,856	$479,856	$474,836	$459,856	$605,456	$8,314,459	$20,615,810	$14,815,445	$9,225,406	$8,433,723	$9,158,746	$8,582,013	$11,580,647	$8,586,297
2,039	13	10	0.6810	403.8	2,019.0	101.0	4,841,715.6	881.0	3,227,810.4	587.0	$1,119,766	$2,396,221	$1,631,358	$745,183	$639,911	$667,274	$661,112	$639,911	$841,940	$762,506	$1,631,710	$1,110,875	$507,433	$435,748	$454,381	$450,185	$435,748	$573,320	$762,506	$1,738,268	$1,183,420	$540,571	$464,204	$484,054	$479,584	$464,204	$610,761	$9,434,225	$23,012,031	$16,446,803	$9,970,589	$9,073,634	$9,826,020	$9,243,125	$12,220,557	$9,428,237
2,040	14	11	0.6611	407.8	2,039.2	102.0	4,890,132.8	890.0	3,260,088.5	593.0	$1,164,892	$2,480,805	$1,688,831	$1,157,080	$1,048,077	$1,765,168	$1,070,379	$662,094	$1,256,542	$770,131	$1,640,104	$1,116,516	$764,966	$692,902	$1,166,984	$707,647	$437,722	$830,722	$770,131	$1,755,733	$1,195,232	$525,726	$748,582	$1,268,282	$764,366	$468,582	$896,118	$10,599,117	$25,492,836	$18,135,634	$11,127,669	$10,121,711	$11,591,188	$10,313,504	$12,882,651	$10,684,779
2,041	15	12	0.6419	411.9	2,059.6	103.0	4,939,034.1	899.0	3,292,689.4	599.0	$1,211,837	$2,568,144	$1,748,178	$797,916	$685,029	$713,343	$708,479	$685,029	$900,160	$777,832	$1,648,394	$1,122,089	$512,152	$439,694	$457,868	$454,746	$439,694	$577,778	$777,832	$1,773,215	$1,207,057	$550,934	$472,989	$492,539	$489,180	$472,989	$621,529	$11,810,954	$28,060,980	$19,883,812	$11,925,585	$10,806,740	$12,304,531	$11,021,983	$13,567,680	$11,584,939
2,042	16	13	0.6232	416.0	2,080.2	105.0	4,988,424.4	907.0	3,325,616.3	605.0	$1,260,674	$2,655,729	$1,809,456	$825,672	$710,893	$739,469	$735,541	$710,893	$930,777	$785,611	$1,654,962	$1,127,593	$514,531	$443,005	$460,813	$458,365	$443,005	$580,030	$785,611	$1,788,965	$1,218,895	$556,193	$478,875	$498,125	$495,479	$478,875	$626,995	$13,071,629	$30,716,709	$21,693,268	$12,751,257	$11,517,633	$13,044,001	$11,757,524	$14,278,573	$12,515,716
2,043	17	14	0.6050	420.2	2,101.0	106.0	5,038,308.7	917.0	3,358,872.5	611.0	$1,311,480	$2,751,439	$1,872,726	$854,396	$735,461	$764,524	$761,358	$735,461	$962,446	$793,467	$1,664,666	$1,133,030	$516,924	$444,966	$462,550	$460,634	$444,966	$582,296	$793,467	$1,808,232	$1,230,746	$561,505	$483,341	$502,441	$500,361	$483,341	$632,515	$14,383,108	$33,468,148	$23,565,994	$13,605,653	$12,253,094	$13,808,525	$12,518,882	$15,014,034	$13,478,162
2,044	18	15	0.5874	424.4	2,122.0	107.0	5,088,691.8	926.0	3,392,461.2	617.0	$1,364,332	$2,847,573	$1,938,049	$884,124	$760,860	$790,416	$788,060	$760,860	$995,202	$801,401	$1,672,649	$1,138,400	$519,329	$446,925	$464,286	$462,902	$446,925	$584,576	$801,401	$1,825,767	$1,242,611	$566,870	$487,838	$506,788	$505,277	$487,838	$638,090	$15,747,440	$36,315,721	$25,504,043	$14,489,777	$13,013,954	$14,598,941	$13,306,942	$15,774,894	$14,473,364
2,045	19	16	0.5703	428.6	2,143.2	108.0	5,139,578.7	935.0	3,426,385.8	623.0	$1,419,315	$5,153,740	$4,212,407	$2,926,849	$2,799,079	$2,829,133	$2,827,637	$1,223,823	$1,029,084	$809,415	$2,939,106	$2,402,277	$1,669,141	$1,596,275	$1,613,415	$1,612,562	$697,929	$586,872	$809,415	$3,258,320	$2,669,490	$1,862,289	$1,782,365	$1,801,165	$1,800,229	$772,365	$643,721	$17,166,755	$41,469,461	$29,716,451	$17,416,626	$15,813,033	$17,428,074	$16,134,579	$16,998,717	$15,502,448
2,046	20	17	0.5537	432.9	2,164.6	109.0	5,190,974.5	944.0	3,460,649.7	630.0	$1,476,513	$3,049,285	$2,077,982	$946,730	$814,265	$844,825	$844,240	$814,265	$1,064,130	$817,510	$1,688,315	$1,150,528	$524,181	$450,839	$467,759	$467,435	$450,839	$589,183	$817,510	$1,860,890	$1,268,132	$577,762	$496,922	$515,572	$515,215	$496,922	$649,408	$18,643,268	$44,518,746	$31,794,433	$18,363,355	$16,627,298	$18,272,899	$16,978,819	$17,812,982	$16,566,579
2,047	21	18	0.5375	437.3	2,186.3	110.0	5,242,884.2	954.0	3,495,256.1	636.0	$1,536,017	$3,157,999	$2,149,929	$979,682	$842,329	$873,401	$873,780	$842,329	$1,100,381	$825,685	$1,697,580	$1,155,693	$528,627	$452,793	$469,496	$469,700	$452,793	$591,509	$825,685	$1,880,229	$1,280,038	$583,289	$501,511	$520,011	$520,237	$501,511	$655,152	$20,179,285	$47,676,745	$33,944,362	$19,343,037	$17,469,626	$19,146,300	$17,852,599	$18,655,311	$17,666,960
2,048	22	19	0.5219	441.6	2,208.1	111.0	5,295,313.1	963.0	3,530,208.7	642.0	$1,597,918	$3,267,261	$2,224,199	$1,013,785	$871,341	$902,932	$904,331	$871,341	$1,137,879	$833,941	$1,705,159	$1,160,793	$529,087	$454,746	$471,233	$471,964	$454,746	$593,850	$833,941	$1,897,836	$1,291,959	$588,872	$506,131	$524,481	$525,294	$506,131	$660,954	$21,777,203	$50,944,006	$36,168,562	$20,356,823	$18,340,967	$20,049,232	$18,756,930	$19,526,652	$18,804,839
2,049	23	20	0.5067	446.0	2,230.2	112.0	5,348,266.2	973.0	3,565,510.8	649.0	$1,662,314	$3,383,133	$2,303,952	$1,049,080	$901,333	$933,449	$935,927	$901,333	$1,176,665	$842,281	$1,714,206	$1,167,394	$531,560	$456,698	$472,971	$474,227	$456,698	$596,207	$842,281	$1,917,212	$1,305,643	$594,511	$510,783	$528,983	$530,387	$510,783	$666,813	$23,439,517	$54,327,140	$38,472,514	$21,405,903	$19,242,300	$20,982,680	$19,692,858	$20,427,985	$19,981,504
2,050	24	21	0.4919	450.5	2,252.5	113.0	5,401,748.9	983.0	3,601,165.9	655.0	$1,729,306	$3,502,791	$2,383,164	$3,556,063	$3,402,793	$4,317,746	$3,439,059	$3,208,686	$3,687,241	$850,704	$1,723,141	$1,172,359	$1,749,347	$1,673,949	$2,124,045	$1,691,789	$1,578,461	$1,813,878	$850,704	$1,936,607	$1,317,592	$2,000,206	$1,915,467	$2,433,517	$1,935,517	$1,805,467	$2,072,731	$25,168,823	$57,829,931	$40,855,678	$24,961,966	$22,645,093	$25,300,426	$23,131,917	$23,636,671	$23,668,745
2,051	25	22	0.4776	455.0	2,275.1	114.0	5,455,766.3	992.0	3,637,177.6	662.0	$1,798,997	$3,623,108	$2,468,167	$1,123,412	$964,390	$997,576	$1,002,398	$964,390	$1,258,288	$859,211	$1,730,417	$1,178,810	$536,548	$460,598	$476,448	$478,751	$460,598	$600,965	$859,211	$1,954,271	$1,331,306	$605,958	$520,183	$538,083	$540,684	$520,183	$678,708	$26,967,819	$61,453,039	$43,323,844	$26,085,378	$23,609,483	$26,298,002	$24,134,314	$24,601,061	$24,927,033
2,052	26	23	0.4637	459.6	2,297.8	115.0	5,510,324.0	1,002.0	3,673,549.3	668.0	$1,871,496	$3,750,614	$2,552,633	$1,162,537	$997,524	$1,031,254	$1,037,347	$997,524	$1,301,217	$867,803	$1,739,140	$1,183,642	$539,062	$462,547	$478,187	$481,012	$462,547	$603,367	$867,803	$1,973,703	$1,343,284	$611,768	$524,932	$542,682	$545,888	$524,932	$684,746	$28,839,316	$65,203,653	$45,876,477	$27,247,915	$24,607,007	$27,329,256	$25,171,661	$25,598,585	$26,228,250
2,053	27	24	0.4502	464.2	2,320.9	117.0	5,565,427.3	1,012.0	3,710,284.8	675.0	$1,946,917	$3,882,268	$2,643,217	$1,203,030	$1,034,600	$1,068,589	$1,076,314	$1,034,600	$1,345,624	$876,481	$1,747,754	$1,189,947	$541,591	$465,766	$481,067	$484,545	$465,766	$605,785	$876,481	$1,993,155	$1,357,027	$617,635	$531,164	$548,614	$552,579	$531,164	$690,843	$30,786,233	$69,085,921	$48,519,693	$28,450,945	$25,641,608	$28,397,846	$26,247,975	$26,633,185	$27,573,874
2,054	28	25	0.4371	468.8	2,344.0	118.0	5,621,081.5	1,023.0	3,747,387.7	682.0	$2,025,378	$4,021,693	$2,736,764	$1,244,938	$1,070,079	$1,104,618	$1,113,762	$1,070,079	$1,391,560	$885,246	$1,757,789	$1,196,176	$544,133	$467,707	$482,803	$486,799	$467,707	$608,218	$885,246	$2,014,377	$1,370,784	$623,562	$535,979	$553,279	$557,859	$535,979	$697,001	$32,811,611	$73,107,614	$51,256,458	$29,695,882	$26,711,686	$29,502,464	$27,361,737	$27,703,264	$28,965,434
2,055	29	26	0.4243	473.5	2,367.4	119.0	5,677,292.3	1,033.0	3,784,861.6	689.0	$2,107,001	$4,162,123	$2,833,368	$1,288,310	$1,106,753	$1,141,849	$1,152,488	$3,901,846	$1,439,078	$894,098	$1,766,182	$1,202,330	$546,690	$469,647	$484,540	$489,054	$1,655,734	$610,667	$894,098	$2,033,868	$1,384,557	$629,547	$540,827	$557,977	$563,176	$1,940,827	$703,221	$34,918,612	$77,269,737	$54,089,826	$30,984,192	$27,818,440	$30,644,313	$28,514,224	$31,605,110	$30,404,512
2,056	30	27	0.4120	478.2	2,391.1	120.0	5,734,065.3	1,043.0	3,822,710.2	696.0	$2,191,913	$4,307,102	$2,933,124	$1,333,198	$1,144,664	$1,180,323	$1,192,535	$1,144,664	$1,488,232	$903,039	$1,774,469	$1,208,408	$549,260	$471,586	$486,277	$491,309	$471,586	$613,132	$903,039	$2,053,379	$1,398,345	$635,593	$545,710	$562,710	$568,532	$545,710	$709,504	$37,110,525	$81,576,839	$57,022,950	$32,317,391	$28,963,104	$31,824,636	$29,706,760	$32,749,774	$31,892,744
2,057	31	28	0.4000	483.0	2,415.0	121.0	5,791,405.9	1,053.0	3,860,937.3	702.0	$2,280,247	$4,456,772	$3,032,367	$1,379,656	$1,183,853	$1,220,080	$1,233,948	$1,183,853	$1,539,080	$912,070	$1,782,651	$1,212,908	$551,845	$473,526	$488,016	$493,563	$473,526	$615,612	$912,070	$2,072,911	$1,410,399	$641,699	$550,627	$567,477	$573,928	$550,627	$715,849	$39,390,772	$86,033,610	$60,055,317	$33,697,047	$30,146,956	$33,044,716	$30,940,708	$33,933,627	$33,431,823
2,058	32	29	0.3883	487.8	2,439.2	122.0	5,849,320.0	1,064.0	3,899,546.6	710.0	$2,372,141	$4,615,135	$3,142,486	$1,427,738	$1,224,361	$1,261,164	$1,276,774	$1,224,361	$1,591,679	$921,190	$1,792,228	$1,220,344	$554,444	$475,465	$489,757	$495,819	$475,465	$618,108	$921,190	$2,094,212	$1,425,968	$647,866	$555,579	$572,279	$579,362	$555,579	$722,257	$41,762,913	$90,648,745	$63,197,803	$35,124,785	$31,371,318	$34,305,880	$32,217,482	$35,157,988	$35,023,502
2,059	33	30	0.3770	492.7	2,463.6	124.0	5,907,813.2	1,075.0	3,938,542.1	717.0	$2,467,738	$4,778,676	$3,252,299	$1,477,501	$1,269,510	$1,306,555	$1,324,335	$1,269,510	$1,646,092	$930,402	$1,801,686	$1,226,202	$557,057	$478,639	$492,606	$499,309	$478,639	$620,620	$930,402	$2,115,534	$1,439,803	$654,094	$562,016	$578,416	$586,287	$562,016	$728,730	$44,230,651	$95,427,421	$66,450,103	$36,602,286	$32,640,828	$35,612,435	$33,541,817	$36,427,499	$36,669,594

Residuals Alternatives – Non-Cost Screening Matrix

Scores use a 1-to-5 scale, where 5 is most favorable. Weights and scores are editable. The matrix does not replace engineering judgment; it documents reliability, truck traffic, control, integration, staffing, outlet, and implementation considerations.

Alternative	Reliability / Equipment Availability	Truck Traffic / Spill Exposure	City Control / Schedule	Area 6 Integration / Avoided Duplication	Staffing / Fleet Burden	Receiving Outlet Flexibility	Implementation / Permit Risk	Weighted Score	Principal Rationale
Criterion Weight	**20.0%**	**15.0%**	**15.0%**	**15.0%**	**15.0%**	**10.0%**	**10.0%**		Weights sum to 100%.
Continue Synagro bundled mobile service	2.00	4.00	1.00	2.00	5.00	3.00	4.00	2.90	Low City staffing burden, but continued contractor-equipment availability, escalation, and limited City control.
Centralized liquid hauling after thickening to 2% TS	3.00	1.00	3.00	4.00	2.00	1.00	2.00	2.40	Very high tanker traffic and receiving-outlet dependency; low process-equipment capital.
Centralized liquid hauling after thickening to 3% TS	3.00	2.00	3.00	4.00	2.00	1.00	2.00	2.55	Lower traffic than 2% liquid but still hundreds of tanker movements and limited outlets.
City-owned fixed dewatering with bundled contracted cake haul/disposition	5.00	5.00	5.00	5.00	4.00	4.00	5.00	4.75	Reliable fixed equipment and integrated Area 6 operations; bundled transport/disposition retains less price transparency.
City-owned fixed dewatering with haul-only contractor and City-direct tipping	5.00	5.00	5.00	5.00	4.00	5.00	4.00	4.75	City controls dewatering and receiving-facility agreement while competitively procuring haul-only service.
City-owned fixed dewatering with City self-haul and direct tipping	4.00	5.00	5.00	5.00	2.00	4.00	3.00	4.05	High control and direct tipping, but underutilized fleet, CDL staffing, maintenance, and backup-hauler burden.
City-owned fixed equipment with contract operation, haul-only contractor, and direct tipping	4.00	5.00	3.00	5.00	5.00	5.00	4.00	4.40	Reduces City specialist staffing while preserving City equipment ownership; adds contract-operator cost/dependency.
Defer permanent Area 6 dewatering for five years	3.00	4.00	2.00	2.00	4.00	3.00	1.00	2.80	Retains near-term Synagro dependence and creates later remobilization, retrofit, schedule, and outage risk.
City-owned mobile/distributed dewatering rotated among plants	3.00	4.00	4.00	1.00	2.00	4.00	3.00	2.95	Avoids fixed central equipment but requires repeated mobilization and multiple-site connections and coordination.

Area 6 Residuals Management Alternatives – 30-Year Life-Cycle Cost Comparison

Base ranking uses 3% present worth of nominal escalated cash flows and a 50/50 cost/non-cost combined score. The model also reports constant 2026-dollar cost, total nominal cash outlay, truck activity, and sensitivity to the Synagro escalation, haul/disposition, and City O&M assumptions.

ID	Alternative	Initial / First Capital Event	First Operating-Year Cost	First-Year Truck Loads	30-Yr Constant 2026$	30-Yr Nominal Cash Outlay	3% Present Worth	Savings / (Loss) vs Synagro	PV Cost per Discounted DT	Cost Score (1-5)	Non-Cost Score (1-5)	Combined Score	Rank	Planning Disposition	Key Assumption / Limitation
A1	Synagro bundled service	-	$784,693	93	$24,251,662	$44,230,651	$24,251,662	-	$3,228.04	4.45	2.90	3.67	7	Not selected	Current $1,888.33/DT bundled rate; base 3% escalation, with 2%, 4.03%, and 5.2% sensitivity.
A2	Liquid haul at 2% TS	$2,400,000	$1,755,698	805	$59,042,909	$95,427,421	$53,926,449	($29,674,787)	$7,177.93	1.00	2.40	1.70	9	Not selected	Requires confirmed liquid accepting facility; 300-mile round trip and fee assumptions are placeholders.
A3	Liquid haul at 3% TS	$2,400,000	$1,197,288	537	$41,425,144	$66,450,103	$37,869,278	($13,617,616)	$5,040.63	2.87	2.55	2.71	8	Not selected	Fewer liquid loads than 2% alternative, but still outlet- and route-dependent.
A4	City dewatering + bundled cake haul	$3,550,000	$547,940	93	$23,667,834	$36,602,286	$21,695,665	$2,555,997	$2,887.82	4.75	4.75	4.75	2	Retain for comparison/sensitivity	Uses conservative $185.36/wet-ton public bundled haul/disposition benchmark; local quote required.
A5	City dewatering + haul-only/direct tip	$3,550,000	$471,910	93	$21,260,264	$32,640,828	$19,501,534	$4,750,129	$2,595.77	5.00	4.75	4.88	1	Preferred planning alternative	Separates haul-only contract and City-direct tipping; local destination, route, and fees are critical.
A6	City dewatering + City self-haul	$4,050,000	$495,145	93	$23,326,214	$35,612,435	$21,395,957	$2,855,705	$2,847.93	4.78	4.05	4.41	4	Retain for comparison/sensitivity	Potentially low variable haul cost, but requires fleet capital, CDL staffing, maintenance, and backup capacity.
A7	City equipment + contract operation	$3,550,000	$485,068	93	$21,794,555	$33,541,817	$19,986,010	$4,265,652	$2,660.26	4.94	4.40	4.67	3	Retain for comparison/sensitivity	City owns equipment but procures specialized operation; rate is planning benchmark pending quote.
A8	Deferred permanent facility (5 years)	$4,082,500	$784,693	93	$23,169,959	$36,427,499	$21,244,310	$3,007,353	$2,827.74	4.80	2.80	3.80	6	Not selected	Five years of Synagro plus later capital and 15% remobilization/integration premium.
A9	Mobile/distributed City dewatering	$2,150,000	$623,508	93	$23,119,980	$36,669,594	$21,146,387	$3,105,276	$2,814.71	4.81	2.95	3.88	5	Not selected	Avoids common central capital in the modeled scope but retains multi-site setup, mobilization, and coordination burden.

COST ALLOCATION VIEW – FULL IDENTIFIED PROGRAM VS. DEWATERING/HAULING DECISION

Alternative	Full 3% PV	Common Central Capital PV Removed	Decision-Specific 3% PV	Purpose	Interpretation
Liquid haul at 2% TS	$53,926,449	$3,234,771	$50,691,678	Technology/procurement comparison	Shows incremental load-out/transport decision assuming common central residuals equipment is required.
Liquid haul at 3% TS	$37,869,278	$3,234,771	$34,634,507	Technology/procurement comparison	Shows incremental load-out/transport decision assuming common central residuals equipment is required.
City dewatering + bundled cake haul	$21,695,665	$3,234,771	$18,460,894	Technology/procurement comparison	Shows dewatering/haul decision excluding common central equipment that overlaps alternatives.
City dewatering + haul-only/direct tip	$21,395,957	$3,234,771	$18,161,186	Technology/procurement comparison	Preferred technology/procurement decision view.
City dewatering + City self-haul	$21,395,957	$3,234,771	$18,161,186	Technology/procurement comparison	Separates fleet ownership from common central residuals equipment.
City equipment + contract operation	$19,986,010	$3,234,771	$16,751,239	Technology/procurement comparison	Separates contract-operation decision from common central equipment.
Deferred permanent facility	$21,244,310	$3,428,644	$17,815,666	Technology/procurement comparison	Removes deferred common central capital; retained cost includes delay/remobilization effects.

Common central capital PV	$3,234,771	$	Initial common equipment/shared allocation plus common replacement.
Deferred common central PV	$3,428,644	$	Deferred/premium common capital plus later replacement.
Discounted dry solids	$7,513	DT-PV	Denominator for PV $/DT.
Base direct-tip equivalent	$147.50	$/wet ton	Full-payload screening equivalent; annual model uses rounded loads.

BASE-CASE PLANNING CONCLUSIONS

Finding	Model Result	Units	Facilities-Plan Use
Highest combined score	City dewatering + haul-only/direct tip		Preferred alternative after cost and non-cost screening.
Base PV savings vs Synagro	$4,750,129	$	Expected 3% Synagro escalation case.
First-year liquid 2% vs cake loads	8.7x	ratio	Truck-traffic reduction achieved by mechanical dewatering.
First-year liquid 3% vs cake loads	5.8x	ratio	Truck-traffic reduction achieved by mechanical dewatering.
Direct-tip PV vs bundled cake-haul PV	$2,194,131	$ savings	Value of separating haul-only procurement and tipping agreement.

Residuals Alternatives – Life-Cycle Cost Sensitivity and Break-Even Analysis

Sensitivity tables isolate the assumptions most likely to affect the economic ranking: Synagro escalation, cake hauling/disposition, City O&M, liquid-haul all-in price, dry-solids growth, and cake solids. Public benchmarks are screening values and do not replace Marathon-specific quotations.

SYNAGRO ESCALATION SENSITIVITY

Case	Annual Escalation	Synagro 3% PV	City Direct-Tip 3% PV	Savings / (Loss)	Outcome	Basis	Use
Contract floor	2.00%	$20,171,917	$19,501,534	$670,383	City-owned/direct-tip lower PV	Contract minimum	Compare economic robustness.
Expected base	3.00%	$24,251,662	$19,501,534	$4,750,129	City-owned/direct-tip lower PV	Selected base case	Compare economic robustness.
Historical invoice CAGR	4.03%	$29,464,657	$19,501,534	$9,963,124	City-owned/direct-tip lower PV	2019-current sensitivity	Compare economic robustness.
Recent annual adjustment	5.20%	$37,028,921	$19,501,534	$17,527,387	City-owned/direct-tip lower PV	2025 documented adjustment	Compare economic robustness.

CAKE HAUL / DISPOSITION SENSITIVITY – CITY-OWNED DEWATERING

Case	All-In Cake Haul/Disposition	City Alternative 3% PV	Synagro Base 3% PV	Savings / (Loss)	Outcome	Source/Basis	Note
Public low	$102.00	$16,816,954	$24,251,662	$7,434,709	City-owned lower PV	Miami-Dade CompostUSA	Assumes City operation; annual wet cake from model.
Public middle	$159.13	$20,160,533	$24,251,662	$4,091,129	City-owned lower PV	Miami-Dade EPIC	Assumes City operation; annual wet cake from model.
Public high / bundled base	$185.36	$21,695,665	$24,251,662	$2,555,997	City-owned lower PV	Miami-Dade Merrell Bros.	Assumes City operation; annual wet cake from model.
Stress case	$225.00	$24,015,628	$24,251,662	$236,034	City-owned lower PV	Planning sensitivity	Assumes City operation; annual wet cake from model.
Upper stress case	$250.00	$25,478,773	$24,251,662	($1,227,111)	Synagro lower PV	Planning sensitivity	Assumes City operation; annual wet cake from model.

CITY DEWATERING O&M SENSITIVITY – DIRECT TIP / HAUL-ONLY CONTRACT

Case	City O&M	City Alternative 3% PV	Synagro Base 3% PV	Savings / (Loss)	Outcome	Basis	Note
Low	$250.00	$18,331,017	$24,251,662	$5,920,645	City-owned lower PV	Planning sensitivity	Includes labor, polymer, power, maintenance, testing, and consumables.
Base	$350.00	$19,501,534	$24,251,662	$4,750,129	City-owned lower PV	Planning sensitivity	Includes labor, polymer, power, maintenance, testing, and consumables.
Contract-operator context	$450.00	$20,672,050	$24,251,662	$3,579,613	City-owned lower PV	Planning sensitivity	Includes labor, polymer, power, maintenance, testing, and consumables.
High	$550.00	$21,842,566	$24,251,662	$2,409,096	City-owned lower PV	Planning sensitivity	Includes labor, polymer, power, maintenance, testing, and consumables.

PV SAVINGS VS. SYNAGRO – CITY O&M AND CAKE HAUL/DISPOSITION COMBINATIONS

Cake haul/disposition $/wet ton	250	350	450	550	Interpretation
$102.00	$8,605,225	$7,434,709	$6,264,192	$5,093,676	City-owned lower in all shown O&M cases
$159.13	$5,261,645	$4,091,129	$2,920,613	$1,750,097	City-owned lower in all shown O&M cases
$185.36	$3,726,513	$2,555,997	$1,385,481	$214,965	City-owned lower in all shown O&M cases
$225.00	$1,406,550	$236,034	($934,482)	($2,104,998)	Ranking changes by O&M
$250.00	($56,595)	($1,227,111)	($2,397,627)	($3,568,143)	Synagro lower in all shown O&M cases

LIQUID 3% HAULING – ALL-IN TRANSPORT / ACCEPTANCE PRICE SENSITIVITY

Case	All-In $/gal	Liquid 3% 3% PV	Synagro Base 3% PV	Savings / (Loss)	Outcome	Basis	Critical Limitation
Public haul-only lower bound	$0.079	$13,150,726	$24,251,662	$11,100,936	Liquid 3% lower PV	CCUA 2026 award	Liquid outlet capacity and acceptance terms must be confirmed.
Low complete-service screen	$0.150	$19,793,943	$24,251,662	$4,457,719	Liquid 3% lower PV	Planning sensitivity	Liquid outlet capacity and acceptance terms must be confirmed.
Moderate complete-service screen	$0.250	$29,150,587	$24,251,662	($4,898,925)	Synagro lower PV	Planning sensitivity	Liquid outlet capacity and acceptance terms must be confirmed.
Route-based Marathon planning case	$0.343	$37,869,278	$24,251,662	($13,617,616)	Synagro lower PV	300-mile route, tanker rate, load fee, acceptance fee	Liquid outlet capacity and acceptance terms must be confirmed.
High complete-service screen	$0.450	$47,863,875	$24,251,662	($23,612,212)	Synagro lower PV	Planning sensitivity	Liquid outlet capacity and acceptance terms must be confirmed.

BREAK-EVEN METRICS – BASE SYNAGRO EXPECTED ESCALATION

Metric	Value	Units	Interpretation
Maximum City O&M at base bundled cake-haul rate	$568.36	$/DT	Above this rate, City-owned bundled-haul alternative exceeds Synagro base PV.
Maximum bundled cake-haul/disposition rate at base City O&M	$229.03	$/wet ton	Above this rate, City-owned alternative exceeds Synagro base PV.
Maximum direct tipping fee at base haul-only route and City O&M	$156.16	$/wet ton	Direct-tipping threshold using rounded-load transport factors.
Maximum all-in liquid 3% haul/acceptance price	$0.198	$/gal	Threshold excludes outlet-capacity and non-cost risks.
Base direct-tip equivalent at full payload	$147.50	$/wet ton	Reference only; annual model uses integer loads.

Helper Factor	Value	Units	Definition
PV dry tons with City escalation	11,705.2	DT-PV	Supports variable City O&M sensitivity.
PV wet cake tons with City escalation	58,525.8	wet-ton-PV	Supports cake haul/tip sensitivity.
PV annual fixed-cost factor	27.4	year-PV	Supports fixed O&M sensitivity.
City direct-tip base capital PV	$6,064,475	$	Capital and replacements only.
Liquid 3% PV gallons with City escalation	$93,566,439	gal-PV	Supports all-in liquid-haul sensitivity.
Liquid 3% base capital PV	$3,609,792	$	Initial and replacement capital only.
Liquid 3% process O&M PV	$2,149,185	$	Dry-ton and fixed process O&M, excluding transport/acceptance.
Synagro base PV	$24,251,662	$	3% expected escalation case.

CITY OF MARATHON – AREA 6 RESIDUALS MANAGEMENT ALTERNATIVES

30-Year Life-Cycle Cost and Cost-Effectiveness Exhibit for Facilities Plan Amendment

BASE ANALYSIS ASSUMPTIONS

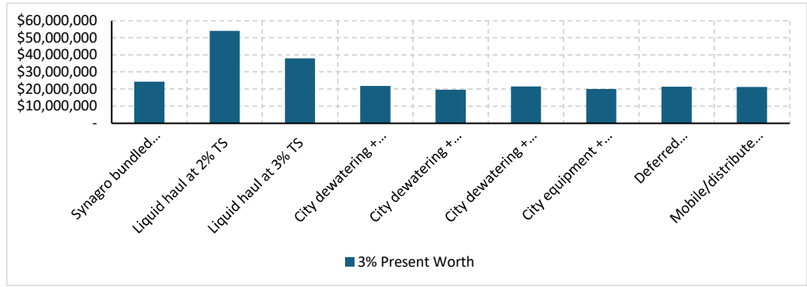
Input	Value	Units / Basis
Analysis period	30	30 operating years
Operations start	2030	year
Discount rate	3.0%	present worth
Dry-solids growth	1.0%	annual
Synagro escalation	3.0%	expected base
City cost escalation	2.5%	annual

KEY BASE-CASE RESULTS

Metric	Value	Interpretation
Preferred combined alternative	City dewatering + haul-only/direct tip	Cost and non-cost screening
Preferred 3% present worth	$19,501,534	Full identified residuals-program cost
PV savings vs Synagro	$4,750,129	Expected 3% Synagro escalation
First-year cake loads	93	20% cake, 20-wet-ton payload
First-year liquid 2% tanker loads	805	5,500-gallon tanker
First-year liquid 3% tanker loads	537	5,500-gallon tanker

ALTERNATIVES COMPARISON

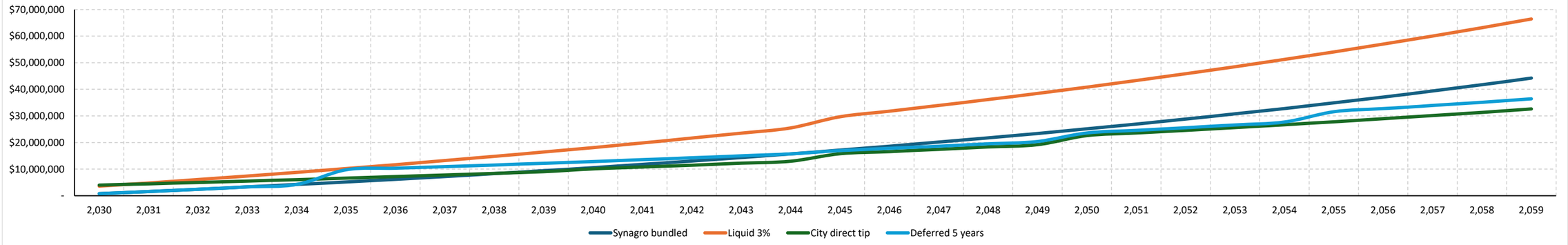
Alternative	Initial Capital	First-Year Loads	Constant 2026$	Nominal Cash Outlay	3% Present Worth	Savings vs Synagro	Combined Rank
Synagro bundled service	-	93	$24,251,662	$44,230,651	$24,251,662	-	7
Liquid haul at 2% TS	$2,400,000	805	$59,042,909	$95,427,421	$53,926,449	($29,674,787)	9
Liquid haul at 3% TS	$2,400,000	537	$41,425,144	$66,450,103	$37,869,278	($13,617,616)	8
City dewatering + bundled cake haul	$3,550,000	93	$23,667,834	$36,602,286	$21,695,665	$2,555,997	2
City dewatering + haul-only/direct tip	$3,550,000	93	$21,260,264	$32,640,828	$19,501,534	$4,750,129	1
City dewatering + City self-haul	$4,050,000	93	$23,326,214	$35,612,435	$21,395,957	$2,855,705	4
City equipment + contract operation	$3,550,000	93	$21,794,555	$33,541,817	$19,986,010	$4,265,652	3
Deferred permanent facility (5 years)	$4,082,500	93	$23,169,959	$36,427,499	$21,244,310	$3,007,353	6
Mobile/distributed City dewatering	$2,150,000	93	$23,119,980	$36,669,594	$21,146,387	$3,105,276	5



FACILITIES-PLAN INTERPRETATION

1. The base combined evaluation selects City-owned fixed dewatering with a separately procured haul-only contractor and a City-direct accepting-facility/tipping agreement. This structure provides the strongest price transparency and City control while avoiding a lightly utilized municipal haul fleet.
2. Mechanical dewatering reduces first-year outbound movements from approximately 805 tanker loads at 2% TS or 537 tanker loads at 3% TS to approximately 93 cake loads at 20% TS. The reduction materially lowers traffic, spill exposure, fuel use, and dependence on liquid-sludge receiving
3. Under the 3% expected Synagro escalation case, the selected direct-tip alternative has lower 3% present worth than continuing the bundled service. At the 2% contract-floor sensitivity the alternatives are close; at the historical 4.03% and recent 5.2% escalation sensitivities, the City-owned
4. Shared tank, building, site, and DIW-related costs are excluded from the base technology-ranking allocation unless entered on LCCA Inputs. The full identified program view includes the $2.2175 million residuals-processing equipment subtotal and the $1.8 million permanent dewatering
5. Liquid hauling can appear economical only under a very low all-in per-gallon rate with a dependable accepting facility. The public $0.079/gal value is a haul-only lower-bound benchmark from another state and does not represent Marathon distance, tipping, or guaranteed outlet capacity.
6. The final facilities-plan cost-effectiveness conclusion should be updated with Marathon-specific haul-only bids, accepting-facility tipping terms, City or contract-operator O&M quotes, and the final installed mechanical-dewatering cost.

CUMULATIVE NOMINAL COST – KEY ALTERNATIVES



Cumulative chart includes Synagro bundled service, liquid hauling at 3% TS, the selected City-owned direct-tip alternative, and the five-year deferral alternative.

Appendix D
Life Cycle Cost Analysis

Appendix - Component Life-Cycle Cost Analysis

City of Marathon Regional Deep Injection Well Project | CCC / storage, backup shallow wells and mudwell alternatives

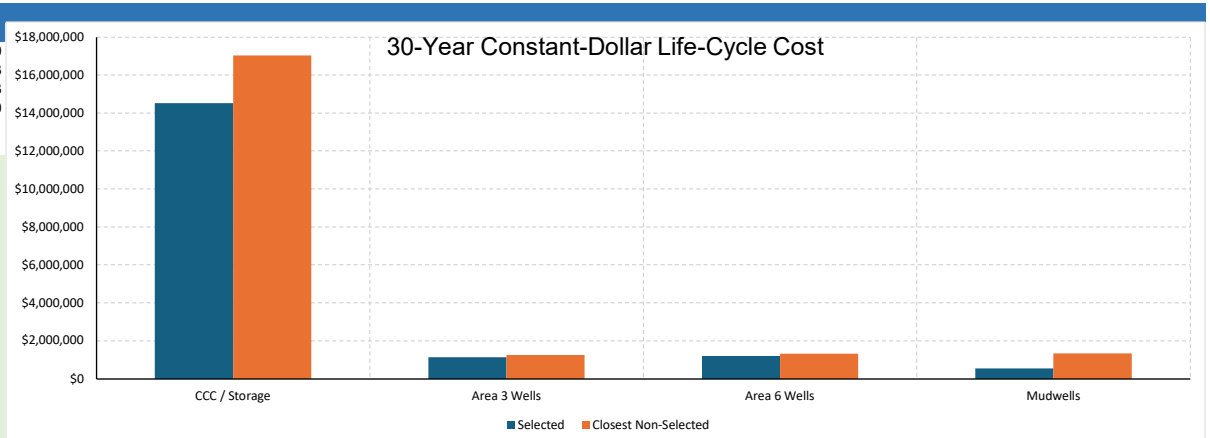
Purpose. Provide a formula-driven and traceable cost-effectiveness comparison for the Phase IVA and Area 6 component alternatives identified during detailed design. The analysis supplements the regional disposal alternatives evaluation and supports selection of integrated CCC/storage facilities, 18-inch backup wells, and 316 stainless-steel mudwells.

	Selected-Alternative Results						
Decision	Selected Alternative	Selected 30-Year LCC (0%)	Lowest Non-Selected LCC (0%)	30-Year Savings	Selected Present Worth (3%)	Lowest Non-Selected PW (3%)	Feasibility / Non-Cost Basis
CCC / Effluent Storage	**Integrated / site-specific CCC and holding configuration**	**$14,511,090**	$17,026,050	$2,514,960	**$13,718,149**	$15,006,283	Avoids intermediate transfer pumping, replaces aging steel CCC assets, preserves gravity hydraulics and reduces access/maintenance burden.
Area 3 Backup Wells	**Two new 18-inch wells; construct before conflicting demolition**	**$1,132,050**	$1,257,243	$125,193	**$1,027,742**	$1,052,288	Resolves tank-footprint conflict, maintains continuous backup disposal and permits use of the City's bucket auger.
Area 6 Backup Wells	**Two new 18-inch wells in compatible location**	**$1,203,000**	$1,328,193	$125,193	**$1,098,692**	$1,123,238	Existing wells conflict with the integrated Area 6 facility; selected wells standardize cleaning access and reliability.
Mudwell Structures	**New 316 stainless-steel mudwells at Areas 3, 4 and 7**	**$554,400**	$1,341,000	$786,600	**$523,201**	$1,210,662	Eliminates recurring corrosion coating, fits constrained sites and has a 50+ year structural life basis.

				Methodology			
Analysis Period	Start Year	Primary Basis	Sensitivity	Dollar Basis	Capital Treatment	O&M / R&R	Feasibility Screen
30 years	2030	0% real discount	3% real discount	Constant 2026 dollars	Selected costs tied to issued estimates; non-selected are screening allowances	Annual O&M plus timed repair/replacement events	Cost ranking supplemented by site, permit, schedule, reliability and operability constraints

Selected versus Closest Non-Selected Alternative - 30-Year LCC

Decision	Selected	Closest Non-Selected
CCC / Storage	$14,511,090	$17,026,050
Area 3 Wells	$1,132,050	$1,257,243
Area 6 Wells	$1,203,000	$1,328,193
Mudwells	$554,400	$1,341,000



Key findings

- **The integrated CCC/storage configuration is $2,514,960 lower than the closest non-selected configuration over 30 years.**
- **At a 0% discount rate, the selected 18-inch well alternative is $125,192.50 lower than the 12-inch alternative in both the Area 3 and Area 6 comparisons. At a 5% discount rate, the 12-inch alternative is lower by approximately $15,800 in present worth; however, the 18-inch wells remain recommended based on maintenance access and operational reliability.**
- **The selected 316SS mudwell alternative is $786,600 lower than concrete and $1,450,350 lower than retaining and recoating the existing mudwells.**
- **The integrated CCC/storage and 316SS mudwell alternatives remain the lowest-cost options throughout the 0% to 5% discount-rate range.**

IMPORTANT USE NOTE. The component analyses overlap and must not be added together as a project total. For example, the CCC / storage analysis uses the full Phase IVA selected capital estimate, which already includes selected well and mudwell work. Use the Phase IVA and Phase IVB engineer's estimates for total project cost and use these worksheets only to document the cost-effectiveness of individual design decisions.

Recommended facilities-plan finding. The integrated/site-specific CCC and storage configuration, two new 18-inch backup wells at Areas 3 and 6, and 316 stainless-steel mudwells at Areas 3, 4 and 7 are the cost-effective alternatives. They also best satisfy the hydraulic, footprint, continuous-operation, corrosion-resistance, maintenance-access and December 2028 implementation constraints.

Appendix - Component Life-Cycle Cost Analysis

City of Marathon Regional Deep Injection Well Project | Phase IVA and Area 6 backup components | Planning-level, formula-driven model

ID	Input / Assumption	Value	Unit	Source / Basis	Status
GEN_YRS	Analysis period	30.00	years	Consistent with the 2023 Wastewater Effluent Disposal Options Planning Document.	Source
GEN_START	Analysis start year	2,030.00	year	Consistent with the 2023 planning document.	Source
GEN_DR0	Primary real discount rate	0.0%	decimal	Primary comparison presents constant-dollar undiscounted costs, consistent with the 2023 planning document.	Method
GEN_DR3	Sensitivity real discount rate	3.0%	decimal	Sensitivity only; used to test whether discounting changes the selected alternative.	Method
GEN_CEI	Construction engineering / project management allowance	10.0%	fraction	Current Phase IVA Detailed Construction Costs / Facilities Plan Amendment Cost Estimate, August 2026	Source
GEN_CONT	Construction contingency allowance	10.0%	fraction	Current Phase IVA Detailed Construction Costs / Facilities Plan Amendment Cost Estimate, August 2026.	Source
GEN_ESC	Cost escalation in constant-dollar LCCA	0.0%	fraction/year	No general inflation in constant-dollar analysis.	Method
CCC_TOTAL_SEL	Selected Phase IVA total capital cost	$12,411,090.00	$	Current Phase IVA cost estimate; includes bonds and insurance, mobilization, construction contingency, and CEI/project management.	Source
CCC_A3_TANK	Area 3 integrated tank construction allowance	$959,000.00	$	Phase IVA Detailed Construction Costs.	Source
CCC_A3_COAT	Area 3 coatings allowance	$300,000.00	$	Phase IVA Detailed Construction Costs.	Source
CCC_A4_TANK	Area 4 integrated tank construction allowance	$919,000.00	$	Phase IVA Detailed Construction Costs.	Source
CCC_A7_TANK	Area 7 integrated tank construction allowance	$959,000.00	$	Phase IVA Detailed Construction Costs.	Source
CCC_A7_COAT	Area 7 coatings allowance	$300,000.00	$	Phase IVA Detailed Construction Costs.	Source
CCC_COMMON	Phase IVA capital common to all CCC alternatives	$7,590,360.00	$	Selected total less alternative-sensitive tank and coating scope, including proportional bonds, mobilization, contingency, and CEI/project management.	Calculated
CCC_ALT1_CAP	IVA-1 initial capital - retain existing CCCs and add transfer pumping	$10,966,050.00	$	Facilities Plan screening control total; to be refined with contractor/vendor pricing.	Planning
CCC_ALT2_CAP	IVA-2 initial capital - separate new CCC and holding structures	$14,176,050.00	$	Facilities Plan screening control total; to be refined with contractor/vendor pricing.	Planning
CCC_ALT3_CAP	IVA-3 initial capital - integrated/site-specific configuration	$12,411,090.00	$	Current Phase IVA all-in capital cost estimate.	Source
CCC_ALT1_OM	IVA-1 annual incremental O&M	$115,000.00	$/year	Transfer pumping energy/maintenance plus aging CCC inspection and corrosion control.	Planning
CCC_ALT2_OM	IVA-2 annual incremental O&M	$55,000.00	$/year	Separate structures and additional access, piping, and inspection burden.	Planning
CCC_ALT3_OM	IVA-3 annual incremental O&M	$35,000.00	$/year	Integrated gravity configuration with reduced intermediate pumping and corrosion burden.	Planning
CCC_A1_Y10	IVA-1 year 10 CCC major rehabilitation	$600,000.00	$	Rounded systemwide planning allowance.	Planning
CCC_A1_Y15	IVA-1 year 15 transfer-pump renewal	$900,000.00	$	Three intermediate transfer systems and associated controls/piping.	Planning
CCC_A1_Y20	IVA-1 year 20 CCC major rehabilitation	$600,000.00	$	Rounded systemwide planning allowance.	Planning
CCC_A1_Y25	IVA-1 year 25 CCC replacement/major structural renewal	$900,000.00	$	Aging steel CCC system allowance.	Planning
CCC_A2_Y15	IVA-2 year 15 mechanical/access renewal	$600,000.00	$	Planning allowance.	Planning
CCC_A2_Y20	IVA-2 year 20 coatings/joints renewal	$600,000.00	$	Planning allowance.	Planning
CCC_A3_Y15	IVA-3 year 15 valves/access/controls renewal	$450,000.00	$	Planning allowance.	Planning
CCC_A3_Y20	IVA-3 year 20 protective system/structural appurtenance renewal	$600,000.00	$	Planning allowance.	Planning
CCC_RECOAT_BENCH	Area 3 CCC coating benchmark	$209,277.42	$	Reynolds Construction 2025 proposal for complete CCC interior/exterior preparation and coating.	Source

WELL_A3_AADF	Area 3 average annual daily flow used for temporary-disposal screening	0.221	MGD	Hydraulic modeling / current facilities-plan basis.	Source
WELL_TEMP_DAYS	Temporary disposal duration	180.00	days	Planning assumption for tank/well construction sequence sensitivity.	Editable
WELL_TEMP_RATE	Temporary liquid disposal/hauling rate	$0.10	$/gallon	Planning screening allowance; obtain local quotation before final reliance.	Editable
WELL_TEMP_PIPE	Temporary pumping/piping and bypass allowance	$250,000.00	$	Planning allowance; existing repump force main may reduce piping cost but Area 4 lacks disposal capacity.	Planning
WELL_TEMP_PERMIT	Temporary permitting/coordination/contingency allowance	$150,000.00	$	Planning allowance.	Planning
WELL_LAND	Land/site-right acquisition allowance	$650,000.00	$	Planning allowance; no suitable adjacent site is currently identified.	Planning
WELL_RELOC_PREM	Tank relocation, added piping, civil and foundation premium	$650,000.00	$	Planning allowance.	Planning
WELL_RELOC_DES	Additional design, permitting, survey, legal and contingency	$300,000.00	$	Planning allowance.	Planning
WELL_18_UNIT	Installed 18-inch shallow well cost per well	$322,500.00	$/well	Bid-derived average based on a $645,000 total for two shallow injection wells. The source bid reportedly included abandonment; therefore, this value is used as a conservative screening unit rate rather than a pure well-construction price.	Source
WELL_12_FACTOR	12-inch well cost factor relative to 18-inch well	0.85	factor	Planning factor applied to the full bid-derived unit basis. Because the bid reportedly includes common abandonment costs, this treatment may overstate the potential capital savings associated with the 12-inch alternative.	Editable
WELL_NEW_OM	Annual inspection/testing O&M for a two-well backup system	$5,000.00	$/year	Planning allowance.	Planning
WELL_12_CLEAN	12-inch contracted cleaning/redevelopment per event, two wells	$50,000.00	$/event	Cannot use City's 18-inch bucket auger; planning allowance.	Planning
WELL_18_CLEAN	18-inch City cleaning/redevelopment per event, two wells	$20,000.00	$/event	18-inch diameter permits City bucket-auger maintenance; planning allowance.	Planning
WELL_12_MAJOR	12-inch major rehabilitation allowance	$150,000.00	$	Year 20 planning allowance.	Planning
WELL_18_HEAD	18-inch wellhead / appurtenance rehabilitation allowance	$50,000.00	$	Year 15 planning allowance.	Planning
WELL_RELOC_OM	Annual O&M for retained existing wells under relocation alternative	$10,000.00	$/year	Planning allowance for older wells.	Planning
WELL_RELOC_Y10	Relocation alternative - existing-well rehabilitation, year 10	$200,000.00	$	Planning allowance.	Planning
WELL_RELOC_Y20	Relocation alternative - major replacement/rehabilitation, year 20	$400,000.00	$	Planning allowance.	Planning
WELL_A6_REHAB	Area 6 retain/rehabilitate three existing wells - initial allowance	$300,000.00	$	Planning allowance; alternative is not physically compatible with final Area 6 footprint.	Planning
WELL_A6_OM	Area 6 retained-well annual O&M	$15,000.00	$/year	Planning allowance for three aging wells.	Planning
WELL_A6_Y10	Area 6 retained-well replacement/relocation, year 10	$700,000.00	$	Equivalent to two new 18-inch wells plus abandonment and related site work.	Planning
WELL_A6_Y20	Area 6 retained-well rehabilitation, year 20	$150,000.00	$	Planning allowance.	Planning
MW_SITES	Number of mudwell sites	3.00	sites	Areas 3, 4, and 7.	Source
MW_SS_COST	316 stainless-steel mudwell direct construction cost per site	$120,000.00	$/site	Site-specific structural total divided by three sites; excludes common initial pump costs.	Calculated
MW_CS_COST	New coated carbon-steel mudwell direct cost per site	$200,000.00	$/site	Project-team planning assumption.	Planning
MW_CONC_COST	New concrete mudwell direct cost per site	$250,000.00	$/site	Planning allowance reflecting new foundation, joints, sealing, and tight-site construction.	Planning

MW_RECOAT	Major carbon-steel recoating direct cost per site	$75,000.00	$/site/event	Facilities-plan project-team assumption; obtain current site-specific quote.	Planning
MW_OM1	Retain/recoat existing carbon steel - annual inspection/spot repair per site	$4,000.00	$/site/year	Planning allowance.	Planning
MW_OM2	New coated carbon steel - annual O&M per site	$3,000.00	$/site/year	Planning allowance.	Planning
MW_OM3	New concrete - annual O&M per site	$2,000.00	$/site/year	Planning allowance.	Planning
MW_OM4	316 stainless steel - annual O&M per site	$1,000.00	$/site/year	Inspection and general cleaning only; no corrosion coating program.	Planning
MW_CONC_SEAL	Concrete joint/seal rehabilitation direct cost per site	$25,000.00	$/site/event	Planning allowance at years 10 and 20.	Planning
MW_PUMP_COUNT	Mudwell pumps per site	2.00	pumps/site	Existing and proposed configurations.	Source
MW_PUMP_COST	Mudwell pump replacement cost	$20,000.00	$/pump	Planning allowance; common to all structural alternatives and excluded from comparative totals.	Planning
MW_PUMP_INT	Mudwell pump replacement interval	7.00	years	Project-team useful-life basis; common to all alternatives.	Planning
GEN_BOND	Bonds and insurance allowance	2.5%	fraction	Current Phase IVA cost estimate.	Source
GEN_MOB	Mobilization allowance	5%	fraction	Current Phase IVA cost estimate.	Source
GEN_ALLIN	All-in factor for direct construction costs	1.29	factor	Includes bonds, mobilization, contingency, and CEI/project management.	Calculated
CCC_A4_COAT	Area 4 coatings allowance	$300,000.00	$	Current Phase IVA cost estimate.	Source
WELL_A6_SITE	Area 6 site-specific allowance above two-well bid benchmark	$55,000.00	$	Difference between the $700,000 Area 6 planning allowance and the $645,000 bid-based benchmark for two wells. The source bid reportedly included abandonment. This amount represents rounding, Area 6 site conditions, and the additional third existing-well abandonment; it is not a documented bid-item split.	Planning
MW_A3_SS	Area 3 316SS mudwell structural direct cost	$100,000.00	$	Current Phase IVA cost estimate.	Source
MW_A4_TOTAL	Area 4 316SS mudwell system total	$150,000.00	$	Current Phase IVA estimate; includes tank, two return pumps, and appurtenances.	Source
MW_A4_PUMPS	Provisional Area 4 pump-equipment allocation within $150,000 system total	$40,000.00	$	Planning allocation based on two pumps at $20,000 each. The resulting $110,000 structural allowance is consistent with the $100,000 to $150,000 structural allowances used for Areas 3 and 7. Replace with a vendor or estimator breakdown when available.	Planning
MW_A4_STRUCT	Area 4 316SS mudwell structural direct cost	$110,000.00	$	Area 4 system total less two common return pumps.	Calculated
MW_A7_SS	Area 7 316SS mudwell structural direct cost	$150,000.00	$	Current Phase IVA cost estimate; tank and appurtenances.	Source
MW_SS_TOTAL	Total selected 316SS structural direct cost	$360,000.00	$	Excludes common initial pump costs from the structural comparison.	Calculated

Phase IVA CCC and Effluent-Storage Configuration LCCA

30-year constant-dollar analysis beginning in 2030; 0% primary comparison with 3% real-discount sensitivity

Purpose. Compare the facilities-plan alternatives for the remote-plant chlorine-contact and effluent-storage configuration. Costs common to every Phase IVA alternative are held constant. The selected configuration uses integrated/site-specific CCC and holding volumes to preserve gravity flow from post-equalization pumping, avoid intermediate transfer pumping, and replace aging steel CCC assets.

Selected Configuration - Site Basis

Site	Selected Process Volume	Direct Tank / Coating Basis	Planning Note
Area 3	103,000 gal	$1,259,000	13,000-gal clearwell + 40,000-gal CCC + 50,000-gal holding
Area 4	77,000 gal	$1,219,000	17,000-gal CCC + 60,000-gal holding
Area 5	60,000 gal	$919,000	Holding only; existing CCCs remain and are not part of this CCC alternatives comparison
Area 7	36,000 gal	$1,259,000	8,000-gal CCC + 28,000-gal holding

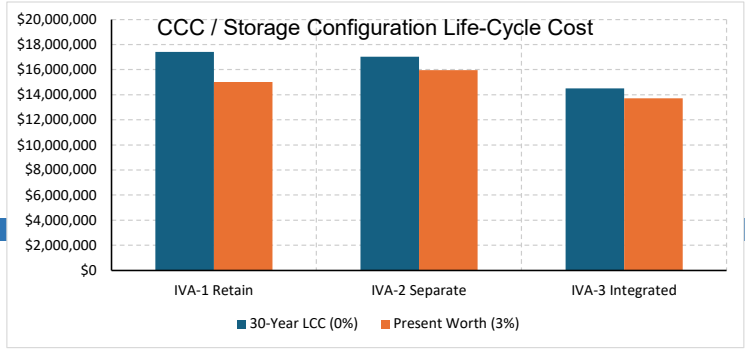
Life-Cycle Cost Comparison

Cost Element	IVA-1 Retain CCCs + Transfer Pumping	IVA-2 Separate New CCC + Holding	IVA-3 Integrated / Site-Specific (Selected)
Common Phase IVA capital unaffected by CCC alternative	$7,590,360	$7,590,360	$7,590,360
Alternative-sensitive capital allowance	$3,375,690	$6,585,690	$4,820,730
Initial capital cost	$10,966,050	$14,176,050	$12,411,090
Annual incremental O&M	$115,000	$55,000	$35,000
30-year O&M at 0% discount	$3,450,000	$1,650,000	$1,050,000
30-year repair / replacement events	$3,000,000	$1,200,000	$1,050,000
30-year life-cycle cost at 0%	**$17,416,050**	**$17,026,050**	**$14,511,090**
O&M present worth at 3%	**$2,254,051**	**$1,078,024**	**$686,015**
Repair / replacement present worth at 3%	**$1,786,183**	**$717,323**	**$621,043**
30-year present worth at 3%	**$15,006,283**	**$15,971,397**	**$13,718,149**
Savings versus IVA-1 at 0%	$0	$390,000	$2,904,960
Savings versus IVA-2 at 0%	($390,000)	$0	$2,514,960

Repair / Replacement Event Schedule

Event Year	IVA-1	IVA-2	IVA-3 Selected
10	$600,000	$0	$0
15	$900,000	$600,000	$450,000
20	$600,000	$600,000	$600,000
25	$900,000	$0	$0

Alternative	30-Year LCC (0%)	Present Worth (3%)
IVA-1 Retain	$17,416,050	$15,006,283
IVA-2 Separate	$17,026,050	$15,971,397
IVA-3 Integrated	$14,511,090	$13,718,149



Conclusion. The integrated/site-specific configuration has the lowest 30-year constant-dollar life-cycle cost and remains lowest under the 3% sensitivity. It also eliminates intermediate transfer pumping, reduces long-term corrosion exposure, preserves site access, and implements the hydraulic configuration required by detailed design.

Area 3 Backup-Well and Construction-Sequence LCCA

Compares site relocation, temporary disposal, 12-inch wells, and the selected two 18-inch backup wells

Project basis. The existing Area 3 backup wells conflict with the new integrated tank footprint. Continuous disposal capability must be maintained while the new tank is constructed. The existing repump force main can convey effluent toward Area 4, but Area 4 does not have spare disposal capacity for the Area 3 flow. The selected sequence constructs two new 18-inch backup wells first, keeps the existing treatment/disposal system available through cutover, and then abandons facilities that conflict with the new work.

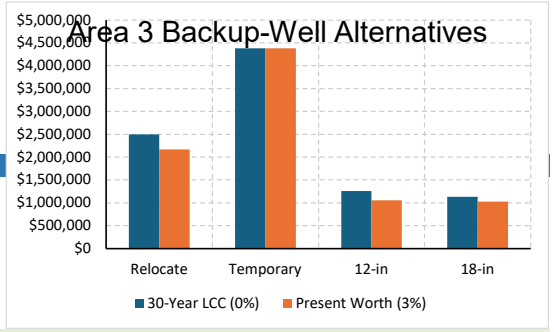
Capital Cost Build-Up

Cost Element	A3-1 Acquire Land /	A3-2 Repump +	A3-3 Two New 12-in	A3-4 Two New 18-in
Land / site-right acquisition	$650,000			
Tank relocation, added civil/piping/foundation premium	$650,000			
Additional design, permitting, survey and legal	$300,000			
Temporary pumping / piping / bypass		$400,000		
Temporary disposal volume		39,780,000 gal		
Temporary disposal cost		$3,978,000		
New shallow-well construction			$707,243	$832,050
Initial capital / implementation cost	$1,600,000	$4,378,000	$707,243	$832,050

30-Year Life-Cycle Cost Comparison

Cost Element	A3-1 Relocate	A3-2 Temporary	A3-3 12-in Wells	A3-4 18-in Wells
Initial capital / implementation cost	$1,600,000	$4,378,000	$707,243	$832,050
Annual O&M	$10,000	$0	$5,000	$5,000
30-year O&M at 0%	$300,000	$0	$150,000	$150,000
Repair / rehabilitation events	$600,000	$0	$400,000	$150,000
30-year life-cycle cost at 0%	**$2,500,000**	**$4,378,000**	**$1,257,243**	**$1,132,050**
O&M present worth at 3%	**$196,004**	**$0**	**$98,002**	**$98,002**
Repair / rehabilitation present worth at 3%	**$370,289**	**$0**	**$247,044**	**$97,690**
30-year present worth at 3%	**$2,166,293**	**$4,378,000**	**$1,052,288**	**$1,027,742**
Difference from selected at 0%	$1,367,950	$3,245,950	$125,193	$0
Feasibility / operational finding	No suitable adjacent	Not feasible without	Lower initial cost, but	Selected: maintains

Alternative	30-Year LCC	Present Worth
Relocate	$2,500,000	$2,166,293
Temporary	$4,378,000	$4,378,000
12-in	$1,257,243	$1,052,288
18-in	$1,132,050	$1,027,742



Repair / Maintenance Event Schedule

Event Year	Relocate	Temporary	12-in Wells	18-in Wells
5			$50,000	$20,000
10	$200,000		$50,000	$20,000
15			$50,000	$70,000
20	$400,000		$200,000	$20,000
25			$50,000	$20,000

Conclusion. Two new 18-inch wells have the lowest 30-year screening life-cycle cost and are the only alternative that directly resolves the tank-footprint conflict while maintaining continuous backup disposal. The 18-inch diameter is also economically justified over 12-inch wells because the City can use its bucket auger and avoid repeated specialty cleaning and earlier major rehabilitation.

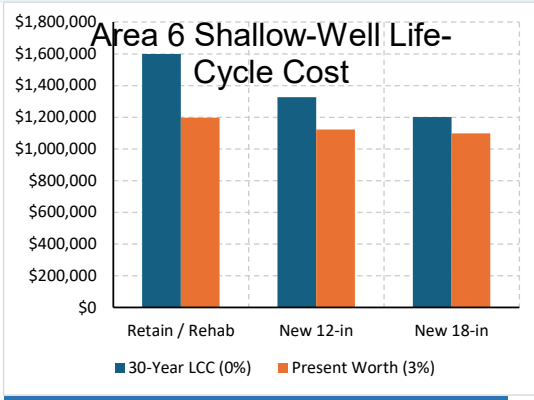
Area 6 Backup Shallow-Well LCCA

30-year comparison of retaining the existing wells, two new 12-inch wells, and the selected two new 18-inch wells

Project basis. The Phase IVB site plan requires removal and abandonment of the three existing Area 6 shallow injection wells because they conflict with the integrated receiving, storage, pumping, treatment-support and operations facility. Backup shallow-well capability must remain available after the regional DIW is placed in service. The selected alternative constructs two new 18-inch wells in a compatible location, improves cleaning access, and standardizes the well diameter with the City's bucket-auger maintenance practice.

Capital and Renewal Basis

Cost Element	A6-1 Retain / Rehabilitate Existing Wells	A6-2 Two New 12-in Wells	A6-3 Two New 18-in Wells (Selected)
Immediate rehabilitation / relocation allowance	$300,000		
New shallow-well construction		$778,193	**$903,000**
Initial capital cost	$300,000	$778,193	**$903,000**
Annual inspection and maintenance	$15,000	$5,000	**$5,000**
Year 10 renewal / replacement	$700,000	$50,000	**$20,000**
Year 20 major maintenance	$150,000	$200,000	**$20,000**
Feasibility finding	Not compatible with the final Area 6 facility footprint; would require redesign and later replacement.	Lower first cost, but specialty cleaning and smaller diameter do not meet the City's preferred maintenance standard.	**Selected: compatible with the site plan, standardized maintenance access, and improved long-term reliability.**



30-Year Life-Cycle Cost Comparison

Cost Element	A6-1 Retain / Rehab	A6-2 New 12-in	A6-3 New 18-in Selected
Initial capital cost	$300,000	$778,193	**$903,000**
Annual O&M	$15,000	$5,000	**$5,000**
30-year O&M at 0%	$450,000	$150,000	**$150,000**
Repair / rehabilitation events	$850,000	$400,000	**$150,000**
30-year life-cycle cost at 0%	$1,600,000	$1,328,193	**$1,203,000**
O&M present worth at 3%	$294,007	$98,002	**$98,002**
Repair / rehabilitation present worth at 3%	$603,917	$247,044	**$97,690**
30-year present worth at 3%	$1,197,924	$1,123,238	**$1,098,692**
Difference from selected at 0%	$397,000	$125,193	**$0**

Alternative	30-Year LCC (0%)	Present Worth (3%)
Retain / Rehab	$1,600,000	$1,197,924
New 12-in	$1,328,193	$1,123,238
New 18-in	$1,203,000	$1,098,692

Repair / Maintenance Event Schedule

Event Year	Retain / Rehab	New 12-in	New 18-in Selected
5	$0	$50,000	**$20,000**
10	$700,000	$50,000	**$20,000**
15	$0	$50,000	**$70,000**
20	$150,000	$200,000	**$20,000**
25	$0	$50,000	**$20,000**

Conclusion. Two new 18-inch backup wells are the lowest-cost feasible alternative over the 30-year analysis. Retaining the existing wells would conflict with the selected Area 6 facility layout and defer rather than avoid replacement. The 18-inch diameter also reduces specialty-cleaning risk and provides a common City maintenance standard.

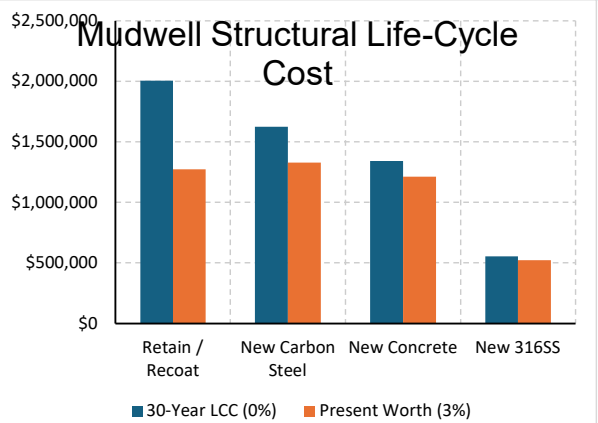
Areas 3, 4 and 7 Mudwell Life-Cycle Cost Analysis

Structural alternatives for three filter-backwash/reject-water mudwells; common pumps are shown separately

Project basis. The existing mudwells at Areas 3, 4 and 7 are coated carbon-steel assemblies connected to the existing CCC/filter units. They have experienced recurring corrosion and major recoating approximately every ten years. The Phase IVA configuration removes the existing connected units and creates tight sites where field assembly and reuse of existing foundations are advantageous. The selected alternative provides new 316 stainless-steel mudwells matching the existing volumes and avoids recurring corrosion-coating work.

Facility and Volume Basis

Facility	Existing / Selected Volume	Existing Material	Selected Material	Planning Note
Area 3	2,800 gal	Coated carbon steel	**316 stainless steel**	Receives disc-filter backwash and bypass reject; two return pumps
Area 4	2,800 gal	Coated carbon steel	**316 stainless steel**	Same-volume replacement; foundation reuse subject to structural confirmation
Area 7	5,300 gal	Coated carbon steel	**316 stainless steel**	Larger existing volume; two return pumps



30-Year Structural Life-Cycle Cost Comparison - All Three Sites

Cost Element	MW-1 Retain / Recoat Existing Carbon Steel	MW-2 New Coated Carbon Steel	MW-3 New Concrete	MW-4 New 316SS (Selected)
Initial structural capital / immediate work	$290,250	$774,000	$967,500	**$464,400**
Annual structural inspection / maintenance	$12,000	$9,000	$6,000	**$3,000**
30-year O&M at 0%	$360,000	$270,000	$180,000	**$90,000**
Year 10 renewal	$290,250	$290,250	$96,750	**$0**
Year 20 renewal	$290,250	$290,250	$96,750	**$0**
Year 25 replacement	$774,000	$0	$0	**$0**
30-year life-cycle cost at 0%	$2,004,750	$1,624,500	$1,341,000	**$554,400**
O&M present worth at 3%	$235,205	$176,404	$117,603	**$58,801**
Renewal / replacement present worth at 3%	$746,344	$376,678	$125,559	**$0**
30-year present worth at 3%	$1,271,800	$1,327,082	$1,210,662	**$523,201**

Alternative	30-Year LCC (0%)	Present Worth (3%)
Retain / Recoat	$2,004,750	$1,271,800
New Carbon Steel	$1,624,500	$1,327,082
New Concrete	$1,341,000	$1,210,662
New 316SS	$554,400	$523,201

Common Pump Replacement - Excluded from Structural Ranking

Common Item	Quantity	Unit Cost	Replacement Years	30-Year Undiscounted Common Cost
Mudwell return pumps	6	$20,000	7, 14, 21 and 28	$480,000

Common-cost treatment. Each mudwell requires two return pumps regardless of structural material. Pump maintenance and four nominal replacement cycles are therefore excluded from the structural ranking to avoid masking the material decision. The common 30-year pump replacement amount shown above should be included in the total project O&M and fiscal-sustainability planning.

Conclusion. New 316 stainless-steel mudwells have the lowest 30-year cost by a wide margin because the selected material eliminates recurring corrosion-coating work and avoids a structural replacement within the analysis period. The selected alternative also fits the constrained sites and can be assembled in place. Foundation reuse remains subject to structural verification during final design.

CCC / Effluent-Storage Annual Cash-Flow Workpaper

Annual constant-dollar cash flows and 3% present-worth calculations supporting A3 CCC LCCA

Year 0 contains initial capital. Years 1 through 30 contain annual O&M plus scheduled repair/replacement events. The cash-flow schedule is formula-linked to the assumptions and the summary LCCA.

Year	IVA-1 Cash Flow	IVA-2 Cash Flow	IVA-3 Selected Cash Flow	3% Discount Factor	IVA-1 Present Value	IVA-2 Present Value	IVA-3 Present Value
0	$10,966,050	$14,176,050	**$12,411,090**	1.0000	$10,966,050	$14,176,050	**$12,411,090**
1	$115,000	$55,000	**$35,000**	0.9709	$111,650	$53,398	**$33,981**
2	$115,000	$55,000	**$35,000**	0.9426	$108,399	$51,843	**$32,991**
3	$115,000	$55,000	**$35,000**	0.9151	$105,241	$50,333	**$32,030**
4	$115,000	$55,000	**$35,000**	0.8885	$102,176	$48,867	**$31,097**
5	$115,000	$55,000	**$35,000**	0.8626	$99,200	$47,443	**$30,191**
6	$115,000	$55,000	**$35,000**	0.8375	$96,311	$46,062	**$29,312**
7	$115,000	$55,000	**$35,000**	0.8131	$93,506	$44,720	**$28,458**
8	$115,000	$55,000	**$35,000**	0.7894	$90,782	$43,418	**$27,629**
9	$115,000	$55,000	**$35,000**	0.7664	$88,138	$42,153	**$26,825**
10	$715,000	$55,000	**$35,000**	0.7441	$532,027	$40,925	**$26,043**
11	$115,000	$55,000	**$35,000**	0.7224	$83,078	$39,733	**$25,285**
12	$115,000	$55,000	**$35,000**	0.7014	$80,659	$38,576	**$24,548**
13	$115,000	$55,000	**$35,000**	0.6810	$78,309	$37,452	**$23,833**
14	$115,000	$55,000	**$35,000**	0.6611	$76,029	$36,361	**$23,139**
15	$1,015,000	$655,000	**$485,000**	0.6419	$651,490	$420,420	**$311,303**
16	$115,000	$55,000	**$35,000**	0.6232	$71,664	$34,274	**$21,811**
17	$115,000	$55,000	**$35,000**	0.6050	$69,577	$33,276	**$21,176**
18	$115,000	$55,000	**$35,000**	0.5874	$67,550	$32,307	**$20,559**
19	$115,000	$55,000	**$35,000**	0.5703	$65,583	$31,366	**$19,960**
20	$715,000	$655,000	**$635,000**	0.5537	$395,878	$362,658	**$351,584**
21	$115,000	$55,000	**$35,000**	0.5375	$61,818	$29,565	**$18,814**
22	$115,000	$55,000	**$35,000**	0.5219	$60,018	$28,704	**$18,266**
23	$115,000	$55,000	**$35,000**	0.5067	$58,270	$27,868	**$17,734**
24	$115,000	$55,000	**$35,000**	0.4919	$56,572	$27,056	**$17,218**
25	$1,015,000	$55,000	**$35,000**	0.4776	$484,770	$26,268	**$16,716**
26	$115,000	$55,000	**$35,000**	0.4637	$53,325	$25,503	**$16,229**
27	$115,000	$55,000	**$35,000**	0.4502	$51,772	$24,760	**$15,757**
28	$115,000	$55,000	**$35,000**	0.4371	$50,264	$24,039	**$15,298**
29	$115,000	$55,000	**$35,000**	0.4243	$48,800	$23,339	**$14,852**
30	$115,000	$55,000	**$35,000**	0.4120	$47,378	$22,659	**$14,420**

Measure	IVA-1	IVA-2	IVA-3 Selected
Total undiscounted cash flow	$17,416,050	$17,026,050	**$14,511,090**
Total present value at 3%	$15,006,283	$15,971,397	**$13,718,149**

Check	Value
Matches summary 0%	$0
Matches summary 3%	$0

Area 3 Backup-Well Annual Cash-Flow Workpaper

Annual constant-dollar cash flows and 3% present-worth calculations supporting A4 A3 Wells

The temporary-disposal alternative is modeled as a Year 0 implementation cost because it would be incurred during the construction sequence. All well alternatives include recurring inspection/maintenance and scheduled cleaning or rehabilitation events.

Year	Relocate Cash Flow	Temporary Disposal	12-in Wells	18-in Wells Selected	3% Factor	Relocate PV	Temporary PV	12-in PV	18-in PV
0	$1,600,000	$4,378,000	$707,243	**$832,050**	1.0000	$1,600,000	$4,378,000	$707,243	**$832,050**
1	$10,000	$0	$5,000	**$5,000**	0.9709	$9,709	$0	$4,854	**$4,854**
2	$10,000	$0	$5,000	**$5,000**	0.9426	$9,426	$0	$4,713	**$4,713**
3	$10,000	$0	$5,000	**$5,000**	0.9151	$9,151	$0	$4,576	**$4,576**
4	$10,000	$0	$5,000	**$5,000**	0.8885	$8,885	$0	$4,442	**$4,442**
5	$10,000	$0	$55,000	**$25,000**	0.8626	$8,626	$0	$47,443	**$21,565**
6	$10,000	$0	$5,000	**$5,000**	0.8375	$8,375	$0	$4,187	**$4,187**
7	$10,000	$0	$5,000	**$5,000**	0.8131	$8,131	$0	$4,065	**$4,065**
8	$10,000	$0	$5,000	**$5,000**	0.7894	$7,894	$0	$3,947	**$3,947**
9	$10,000	$0	$5,000	**$5,000**	0.7664	$7,664	$0	$3,832	**$3,832**
10	$210,000	$0	$55,000	**$25,000**	0.7441	$156,260	$0	$40,925	**$18,602**
11	$10,000	$0	$5,000	**$5,000**	0.7224	$7,224	$0	$3,612	**$3,612**
12	$10,000	$0	$5,000	**$5,000**	0.7014	$7,014	$0	$3,507	**$3,507**
13	$10,000	$0	$5,000	**$5,000**	0.6810	$6,810	$0	$3,405	**$3,405**
14	$10,000	$0	$5,000	**$5,000**	0.6611	$6,611	$0	$3,306	**$3,306**
15	$10,000	$0	$55,000	**$75,000**	0.6419	$6,419	$0	$35,302	**$48,140**
16	$10,000	$0	$5,000	**$5,000**	0.6232	$6,232	$0	$3,116	**$3,116**
17	$10,000	$0	$5,000	**$5,000**	0.6050	$6,050	$0	$3,025	**$3,025**
18	$10,000	$0	$5,000	**$5,000**	0.5874	$5,874	$0	$2,937	**$2,937**
19	$10,000	$0	$5,000	**$5,000**	0.5703	$5,703	$0	$2,851	**$2,851**
20	$410,000	$0	$205,000	**$25,000**	0.5537	$227,007	$0	$113,504	**$13,842**
21	$10,000	$0	$5,000	**$5,000**	0.5375	$5,375	$0	$2,688	**$2,688**
22	$10,000	$0	$5,000	**$5,000**	0.5219	$5,219	$0	$2,609	**$2,609**
23	$10,000	$0	$5,000	**$5,000**	0.5067	$5,067	$0	$2,533	**$2,533**
24	$10,000	$0	$5,000	**$5,000**	0.4919	$4,919	$0	$2,460	**$2,460**
25	$10,000	$0	$55,000	**$25,000**	0.4776	$4,776	$0	$26,268	**$11,940**
26	$10,000	$0	$5,000	**$5,000**	0.4637	$4,637	$0	$2,318	**$2,318**
27	$10,000	$0	$5,000	**$5,000**	0.4502	$4,502	$0	$2,251	**$2,251**
28	$10,000	$0	$5,000	**$5,000**	0.4371	$4,371	$0	$2,185	**$2,185**
29	$10,000	$0	$5,000	**$5,000**	0.4243	$4,243	$0	$2,122	**$2,122**
30	$10,000	$0	$5,000	**$5,000**	0.4120	$4,120	$0	$2,060	**$2,060**

Measure	Relocate	Temporary	12-in	18-in Selected	Relocate PV	Temporary PV	12-in PV	18-in PV
Total undiscounted	$2,500,000	$4,378,000	$1,257,243	**$1,132,050**				
Total present value					$2,166,293	$4,378,000	$1,052,288	**$1,027,742**

Area 6 Backup Shallow-Well Annual Cash-Flow Workpaper

Annual constant-dollar cash flows and 3% present-worth calculations supporting A5 A6 Wells

The retain/rehabilitate case includes immediate rehabilitation, higher annual maintenance, replacement/renewal at Year 10 and major maintenance at Year 20. New-well alternatives use the same cleaning and rehabilitation assumptions as the Area 3 analysis.

Year	Retain / Rehab Cash Flow	New 12-in Cash Flow	New 18-in Selected	3% Factor	Retain / Rehab PV	New 12-in PV	New 18-in PV
0	$300,000	$778,193	**$903,000**	1.0000	$300,000	$778,193	**$903,000**
1	$15,000	$5,000	**$5,000**	0.9709	$14,563	$4,854	**$4,854**
2	$15,000	$5,000	**$5,000**	0.9426	$14,139	$4,713	**$4,713**
3	$15,000	$5,000	**$5,000**	0.9151	$13,727	$4,576	**$4,576**
4	$15,000	$5,000	**$5,000**	0.8885	$13,327	$4,442	**$4,442**
5	$15,000	$55,000	**$25,000**	0.8626	$12,939	$47,443	**$21,565**
6	$15,000	$5,000	**$5,000**	0.8375	$12,562	$4,187	**$4,187**
7	$15,000	$5,000	**$5,000**	0.8131	$12,196	$4,065	**$4,065**
8	$15,000	$5,000	**$5,000**	0.7894	$11,841	$3,947	**$3,947**
9	$15,000	$5,000	**$5,000**	0.7664	$11,496	$3,832	**$3,832**
10	$715,000	$55,000	**$25,000**	0.7441	$532,027	$40,925	**$18,602**
11	$15,000	$5,000	**$5,000**	0.7224	$10,836	$3,612	**$3,612**
12	$15,000	$5,000	**$5,000**	0.7014	$10,521	$3,507	**$3,507**
13	$15,000	$5,000	**$5,000**	0.6810	$10,214	$3,405	**$3,405**
14	$15,000	$5,000	**$5,000**	0.6611	$9,917	$3,306	**$3,306**
15	$15,000	$55,000	**$75,000**	0.6419	$9,628	$35,302	**$48,140**
16	$15,000	$5,000	**$5,000**	0.6232	$9,348	$3,116	**$3,116**
17	$15,000	$5,000	**$5,000**	0.6050	$9,075	$3,025	**$3,025**
18	$15,000	$5,000	**$5,000**	0.5874	$8,811	$2,937	**$2,937**
19	$15,000	$5,000	**$5,000**	0.5703	$8,554	$2,851	**$2,851**
20	$165,000	$205,000	**$25,000**	0.5537	$91,356	$113,504	**$13,842**
21	$15,000	$5,000	**$5,000**	0.5375	$8,063	$2,688	**$2,688**
22	$15,000	$5,000	**$5,000**	0.5219	$7,828	$2,609	**$2,609**
23	$15,000	$5,000	**$5,000**	0.5067	$7,600	$2,533	**$2,533**
24	$15,000	$5,000	**$5,000**	0.4919	$7,379	$2,460	**$2,460**
25	$15,000	$55,000	**$25,000**	0.4776	$7,164	$26,268	**$11,940**
26	$15,000	$5,000	**$5,000**	0.4637	$6,955	$2,318	**$2,318**
27	$15,000	$5,000	**$5,000**	0.4502	$6,753	$2,251	**$2,251**
28	$15,000	$5,000	**$5,000**	0.4371	$6,556	$2,185	**$2,185**
29	$15,000	$5,000	**$5,000**	0.4243	$6,365	$2,122	**$2,122**
30	$15,000	$5,000	**$5,000**	0.4120	$6,180	$2,060	**$2,060**

Measure	Retain / Rehab	New 12-in	New 18-in Selected		Retain PV	12-in PV	18-in PV
Total undiscounted	$1,600,000	$1,328,193	**$1,203,000**				
Total present value					$1,197,924	$1,123,238	**$1,098,692**

Mudwell Structural Annual Cash-Flow Workpaper

Annual constant-dollar cash flows and 3% present-worth calculations supporting A6 Mudwells

Year 0 includes immediate recoating or new structural construction. Recurring pump replacements are common to all alternatives and are excluded from these structural cash flows; the common amount is reported on A6 Mudwells.

Year	Retain / Recoat	New Carbon Steel	New Concrete	New 316SS Selected	3% Factor	Retain PV	Carbon Steel PV	Concrete PV	316SS PV
0	$290,250	$774,000	$967,500	**$464,400**	1.0000	$290,250	$774,000	$967,500	**$464,400**
1	$12,000	$9,000	$6,000	**$3,000**	0.9709	$11,650	$8,738	$5,825	**$2,913**
2	$12,000	$9,000	$6,000	**$3,000**	0.9426	$11,311	$8,483	$5,656	**$2,828**
3	$12,000	$9,000	$6,000	**$3,000**	0.9151	$10,982	$8,236	$5,491	**$2,745**
4	$12,000	$9,000	$6,000	**$3,000**	0.8885	$10,662	$7,996	$5,331	**$2,665**
5	$12,000	$9,000	$6,000	**$3,000**	0.8626	$10,351	$7,763	$5,176	**$2,588**
6	$12,000	$9,000	$6,000	**$3,000**	0.8375	$10,050	$7,537	$5,025	**$2,512**
7	$12,000	$9,000	$6,000	**$3,000**	0.8131	$9,757	$7,318	$4,879	**$2,439**
8	$12,000	$9,000	$6,000	**$3,000**	0.7894	$9,473	$7,105	$4,736	**$2,368**
9	$12,000	$9,000	$6,000	**$3,000**	0.7664	$9,197	$6,898	$4,599	**$2,299**
10	$302,250	$299,250	$102,750	**$3,000**	0.7441	$224,902	$222,670	$76,456	**$2,232**
11	$12,000	$9,000	$6,000	**$3,000**	0.7224	$8,669	$6,502	$4,335	**$2,167**
12	$12,000	$9,000	$6,000	**$3,000**	0.7014	$8,417	$6,312	$4,208	**$2,104**
13	$12,000	$9,000	$6,000	**$3,000**	0.6810	$8,171	$6,129	$4,086	**$2,043**
14	$12,000	$9,000	$6,000	**$3,000**	0.6611	$7,933	$5,950	$3,967	**$1,983**
15	$12,000	$9,000	$6,000	**$3,000**	0.6419	$7,702	$5,777	$3,851	**$1,926**
16	$12,000	$9,000	$6,000	**$3,000**	0.6232	$7,478	$5,609	$3,739	**$1,870**
17	$12,000	$9,000	$6,000	**$3,000**	0.6050	$7,260	$5,445	$3,630	**$1,815**
18	$12,000	$9,000	$6,000	**$3,000**	0.5874	$7,049	$5,287	$3,524	**$1,762**
19	$12,000	$9,000	$6,000	**$3,000**	0.5703	$6,843	$5,133	$3,422	**$1,711**
20	$302,250	$299,250	$102,750	**$3,000**	0.5537	$167,348	$165,687	$56,890	**$1,661**
21	$12,000	$9,000	$6,000	**$3,000**	0.5375	$6,451	$4,838	$3,225	**$1,613**
22	$12,000	$9,000	$6,000	**$3,000**	0.5219	$6,263	$4,697	$3,131	**$1,566**
23	$12,000	$9,000	$6,000	**$3,000**	0.5067	$6,080	$4,560	$3,040	**$1,520**
24	$12,000	$9,000	$6,000	**$3,000**	0.4919	$5,903	$4,427	$2,952	**$1,476**
25	$786,000	$9,000	$6,000	**$3,000**	0.4776	$375,398	$4,298	$2,866	**$1,433**
26	$12,000	$9,000	$6,000	**$3,000**	0.4637	$5,564	$4,173	$2,782	**$1,391**
27	$12,000	$9,000	$6,000	**$3,000**	0.4502	$5,402	$4,052	$2,701	**$1,351**
28	$12,000	$9,000	$6,000	**$3,000**	0.4371	$5,245	$3,934	$2,622	**$1,311**
29	$12,000	$9,000	$6,000	**$3,000**	0.4243	$5,092	$3,819	$2,546	**$1,273**
30	$12,000	$9,000	$6,000	**$3,000**	0.4120	$4,944	$3,708	$2,472	**$1,236**

Measure	Retain / Recoat	New Carbon Steel	New Concrete	New 316SS Selected		Retain PV	Carbon PV	Concrete PV	316SS PV
Total undiscounted	$2,004,750	$1,624,500	$1,341,000	**$554,400**					
Total present value						$1,271,800	$1,327,082	$1,210,662	**$523,201**

Component LCCA Sensitivity and Break-Even Analysis

Tests whether the selected CCC, shallow-well and mudwell alternatives remain preferred under reasonable changes in financial and cost assumptions

The 0% comparison is retained for consistency with the 2023 planning document. The tables below test real discount rates from 0% to 5%, temporary-disposal duration/rate combinations, mudwell recoating cost, and shallow-well first-cost differences.

Real Discount-Rate Sensitivity - 30-Year Present Worth

Real Discount Rate	CCC IVA-1	CCC IVA-2	CCC IVA-3 Selected	A3 12-in Wells	A3 18-in Selected	Mudwell Concrete	Mudwell 316SS Selected
0.0%	$17,416,050	$17,026,050	**$14,511,090**	$1,257,243	**$1,132,050**	$1,341,000	**$554,400**
1.0%	$16,445,841	$16,604,010	**$14,193,694**	$1,175,083	**$1,090,504**	$1,289,224	**$541,823**
2.0%	$15,654,925	$16,257,447	**$13,933,105**	$1,107,750	**$1,056,215**	$1,246,357	**$531,589**
3.0%	$15,006,283	$15,971,397	**$13,718,149**	$1,052,288	**$1,027,742**	$1,210,662	**$523,201**
4.0%	$14,471,148	$15,734,103	**$13,540,012**	$1,006,374	**$1,003,959**	$1,180,768	**$516,276**
5.0%	$14,027,051	$15,536,279	**$13,391,717**	$968,171	**$983,976**	$1,155,595	**$510,517**

Area 3 Temporary-Disposal Sensitivity

Construction / Disposal Duration	$0.05 per gal	$0.10 per gal	$0.15 per gal	Temporary Volume at A3 AADF
90 days	$1,394,500	$2,389,000	$3,383,500	19,890,000 gal
180 days	$2,389,000	$4,378,000	$6,367,000	39,780,000 gal
365 days	$4,433,250	$8,466,500	$12,499,750	80,665,000 gal

Mudwell Recoating-Cost Sensitivity - 30-Year Undiscounted

Recoat Cost / Site / Event	Retain / Recoat Existing	New Coated Carbon Steel	New 316SS Selected	316SS Savings vs Retain
$50,000	$1,714,500	$1,431,000	**$554,400**	$1,160,100
$75,000	$2,004,750	$1,624,500	**$554,400**	$1,450,350
$100,000	$2,295,000	$1,818,000	**$554,400**	$1,740,600
$125,000	$2,585,250	$2,011,500	**$554,400**	$2,030,850

Key Break-Even Metrics

Metric	Formula Result	Current Assumption	Interpretation	Finding
12-in well capital factor that ties the 18-in 30-year LCC	69.95%	85.0%	The 12-in installed cost would need to be at or below this share of the 18-in cost to overcome higher specialty cleaning / rehabilitation.	Current 85% factor is above break-even; 18-in remains lower over 30 years.
316SS installed direct cost / site that ties concrete 30-year LCC	$323,256	$120,000	Maximum 316SS direct cost per site before its 30-year cost equals the concrete alternative.	Current $120,000/site average structural allowance is well below break-even.
CCC selected savings versus lowest non-selected 0% LCC	$2,514,960		Difference between the selected integrated configuration and the lower-cost non-selected CCC alternative.	Integrated configuration retains a substantial life-cycle advantage.

The integrated CCC/storage and 316SS mudwell alternatives remain the lowest-cost options throughout the 0% to 5% discount-rate range. The 18-inch well alternative remains lower in present worth through 4%. At 5%, the 12-inch alternative is lower by approximately $15,800. The 18-inch wells remain recommended because they satisfy the City's maintenance standard, permit use of the City's bucket auger, reduce specialty-cleaning risk, and provide greater operational reliability.

Component LCCA Source and Model-Basis Register

Traceability for capital costs, operating assumptions, useful-life assumptions and facilities-plan control totals

Source hierarchy. Issued project estimates and documented quotations are used where available. Non-selected alternatives are planning-level screening estimates because they were not advanced through final design. Every planning input is centralized on A2 Assumptions and can be replaced without rewriting the LCCA formulas.

ID	Source Document / Record	Key Data Used	Location / Reference	Use in Model	Basis Type
S-01	Wastewater Effluent Disposal Options Planning Document, November 9, 2023	30-year analysis period beginning in 2030; 0% discount rate	Planning methodology section	Primary constant-dollar comparison and analysis period	Issued source
S-02	Current Phase IVA Detailed Construction Costs / Facilities Plan Amendment Cost Estimate, August 2026	$12,411,090 all-in Phase IVA cost; includes current tank, coating, instrumentation, backup-well, and mudwell scope.	Phase 4A cost-estimate worksheet	Selected Phase IVA capital and current component costs	Issued source
S-03	Current Phase IVB Detailed Construction Costs / Facilities Plan Amendment Cost Estimate, August 2026	$700,000 Area 6 planning allowance for two new 18-inch backup wells and abandonment of three existing wells. The allowance was rounded from a $645,000 bid-based benchmark for two wells that reportedly included abandonment.	Phase 4B cost-estimate worksheet	Selected Area 6 backup-well capital cost, including abandonment	Issued source
S-04	Reynolds Construction Area 3 CCC Coating Proposal / Resolution 2025-09	$209,277.42 complete CCC interior/exterior surface preparation and coating	Proposal page labeled TOTAL COMPLETE	Benchmark for recurring CCC corrosion-rehabilitation costs	Quotation / contract
S-05	Area 3 Domestic Wastewater / UIC Permit Modification Package, June 25, 2026	Two new 18-in backup wells; 18-in diameter enables City bucket-auger cleaning	Cover memorandum, pages 1-2	Well-diameter maintenance and reliability basis	Permit application
S-06	DIW Modeling Report, February 19, 2025	Area 3 AADF of 0.221 MGD	Hydraulic model design-flow summary	Temporary-disposal volume and cost sensitivity	Engineering model
S-07	Phase IVA plans/specifications and project-team scope reconciliation	Integrated/site-specific CCC and holding volumes; gravity feed avoids intermediate transfer pumping	Areas 3, 4, 5 and 7 plan sets	CCC alternative definition and qualitative evaluation	Design basis
S-08	Project-team mudwell condition and useful-life record	Coated carbon steel; major corrosion; ~10-year recoating; 25-30-year replacement; 316SS 50+ year life; two pumps per mudwell	Facilities-plan response record	Mudwell material, maintenance and useful-life assumptions	Owner / engineer record
S-09	Current Facilities Plan Amendment progress set	CCC screening control totals and alternatives; shallow-well and mudwell alternatives	Alternatives and cost-effectiveness section	Non-selected capital and O&M control totals	Planning control
S-10	Consent Decree, November 30, 2023	Shallow wells retained only as backup after DIW startup; regional system deadline December 31, 2028	Paragraphs 6-7	Operational need and schedule/feasibility screen	Federal court order

Professional-use note. The workbook is a planning-level cost-effectiveness appendix. Selected-alternative costs are tied to issued estimates; non-selected costs are screening allowances and do not constitute contractor quotations. Update A2 Assumptions as bids, quotes or revised engineer's estimates become available.

Appendix E
Capital Financing Plan and Financial Feasibility

Financial Feasibility

Background

This section outlines the City's financial and rate plan related to the SRF financing of the deep injection well. The City's rate consultant, Raftelis, maintains a comprehensive multi-year utility financial forecast updated on an annual basis. The forecast includes all facets of the City's utility system financial operations including revenue, operating expenses, capital funding, cash reserves, debt service coverage, etc. The results of the financial forecast inclusive of SRF debt service for the deep injection well project are included in Exhibits 1 through 4 attached. The debt service coverage shown on Exhibit 1 assumes the continuation of pledged revenues to include wastewater fees, stormwater fees, and general revenue where appropriated for such purposes.

Proposed System of Charges, Rates, and Fees

The proposed system of charges, rates, and fees includes the implementation of rates adopted by the City pursuant to Resolution No. 2024-65 through October 2026 (beginning of Fiscal Year 2027) plus future rate increases to support the SRF debt service for the deep injection well. The following summarizes the adopted rates and projected future rates:

Description	Oct. 2026	Apr. 2027	Oct. 2027 (FY 2028)	Oct. 2028 (FY 2029)	Oct. 2029 (FY 2030)
Rate Adjustment:					
Adopted (Resolution No. 2024-65)	7.00%	N/A	N/A	N/A	N/A
Projected		16.00%	16.00%	8.00%	8.0%
Administrative Charge per Account	$20.58	$23.87	$27.69	$29.91	$32.30
Base Charge per EDU	$32.89	$38.15	$44.25	$47.79	$51.61
Usage Charge per 1,000 Gallons	$11.65	$13.51	$15.67	$16.92	$18.27

As shown above, the proposed wastewater rates to support the new SRF debt service reflects a series of rate increases beginning with 16% in April 2027. This is followed by another 16% in October 2027 at the beginning of FY 2028. Finally a 8% increase is projected in Oct. 2028 and Oct. 2029 to complete the revenue sufficiency. It should be noted that the City will consider alternative funding options such as non-ad valorem assessments on benefiting properties, similar to the property assessments imposed for the initial wastewater system construction. Such assessments would mitigate the rate increases after April 2027.

CAPITAL FINANCING PLAN

City of Marathon
(Project Sponsor)
Steve Williams, Interim City Manager
(Authorized Representative and Title)
Marathon, FL 33050
(City, State, and Zip Code)

Jennifer Johnson, Finance Director, (305) 743-6586
(Capital Financing Plan Contact, Title and Telephone Number)

8085 Overseas Hwy
(Mailing Address)

Marathon, FL 33050
(City, State, and Zip Code)

The Department needs to know about the financial capabilities of potential State Revolving Fund (SRF) loan applicants. Therefore, a financial capability demonstration (and certification) is required well before the evaluation of the actual loan application.

The sources of revenues being dedicated to repayment of the SRF loan are Wastewater rates, wastewater assessments, stormwater assessments and infrastructure sales tax

(Note: Projects pledging utility operating revenues should attach a copy of the existing/proposed rate ordinance)

Estimate of Proposed SRF Loan Debt Service

Capital Cost*	**60,000,000**
Loan Service Fee (2% of capital cost)	**$1,200,000**
Subtotal	**$61,200,000**
Capitalized Interest**	**$2,359,260**
Total Cost to be Amortized	**$63,559,260**
Interest Rate***	**2.57%**
Annual Debt Service	**$4,104,200**
Annual Debt Service Including Coverage Factor****	**$4,719,830**

* Capital Cost = Allowance + Construction Cost (including a 10% contingency) + Technical Services after Bid Opening.
** Estimated Capitalized Interest = Subtotal times Interest Rate times construction time in years divided by two.
***20 GO Bond Rate times Affordability Index divided by 200.
**** Coverage Factor is generally 15%. However, it may be higher if other than utility operating revenues are pledged.

SCHEDULE OF PRIOR AND PARITY LIENS

List annual debt service beginning two years before the anticipated loan agreement date and continuing at least fifteen fiscal years. Use additional pages as necessary.

IDENTIFY EACH OBLIGATION

#1 SRF WW63702P **Coverage % 115** **Insured (Yes/No) No**	**#2SRF WW637020** **Coverage % 115** **Insured (Yes/No) No**	**#3SRF WW63706** **Coverage % 115** **Insured (Yes/No) No**
#4 **Coverage %** **Insured (Yes/No)**	**#5** **Coverage %** **Insured (Yes/No)**	**#6** **Coverage %** **Insured (Yes/No)**

Fiscal Year	Annual Debt Service (Principal + Interest)						Total Non-SRF Debt Service w/coverage	Total SRF Debt Service w/coverage
	#1	#2	#3	#4	#5	#6		
2025	**$2,024,608**	**$1,214,570**	**$1,420,505**				**$0**	**$5,358,635**
2026	**$2,024,608**	**$1,214,570**	**$1,420,505**				**$0**	**$5,358,635**
2027	**$2,024,608**	**$1,214,570**	**$1,420,505**				**$0**	**$5,358,635**
2028	**$2,024,608**	**$1,214,570**	**$1,420,505**				**$0**	**$5,358,635**
2029	**$2,024,608**	**$1,214,570**	**$1,420,505**				**$0**	**$5,358,635**
2030	**$0**	**$607,285**	**$1,420,505**				**$0**	**$5,358,635**
2031	**$0**	**$0**	**$1,420,505**				**$0**	**$1,633,581**
2032	**$0**	**$0**	**$710,253**				**$0**	**$816,791**
2033	**$0**	**$0**	**$0**				**$0**	**$0**

SCHEDULE OF ACTUAL REVENUES AND DEBT COVERAGE FOR PLEDGED REVENUE

(Provide information for the two fiscal years preceding the anticipated date of the SRF loan agreement)

		FY2024	FY2025
(a)	Operating Revenues (Identify)		
	Charges for Services	$8,351,339	$9,653,178
(b)	Interest Income	$273,501	$42,454
(c)	Other Incomes or Revenues (Identify)		
	Special Assessments	$4,336,715	$4,534,763
	Transfers In (Infrastructure Tax Revenue)	$650,000	$650,000
(d)	Total Revenues	**$13,611,555**	**$14,880,395**
(e)	Operating Expenses (excluding interest on debt, depreciation, and other non-cash items)	$9,838,463	$8,274,328
(f)	**Net Revenues (f = d – e)**	**$3,773,092**	**$6,606,067**
(g)	Debt Service (including coverage) Excluding SRF Loans	$0	$0
(h)	Debt Service (including coverage) for Outstanding SRF Loans	$5,354,944	$5,354,944
(i)	**Net Revenues After Debt Service (i = f – g – h)**	**($1,581,852)**	**$1,251,123**

Source: Per City of Marathon 2024 and 2025 Annual Comprehensive Financial Reports.

Notes:

SCHEDULE OF PROJECTED REVENUES AND DEBT COVERAGE
FOR PLEDGED REVENUE
(Begin with the fiscal year preceding first anticipated semiannual loan payment)

		FY 2028	FY 2029	FY 2030	FY 2031	FY 2032
(a)	Operating Revenues (Identify)					
	Charges for Service [1]	$14,815,100	$16,000,300	$17,280,300	$17,625,900	$17,978,400
(b)	Interest Income	$112,000	$206,000	$267,000	$274,000	$296,000
(c)	Other Incomes or Revenues (Identify)					
	Special Assessments	$3,946,700	$3,094,300	$1,018,300	$1,020,300	$710,253
	Transfers In (Infrastructure Tax Revenue)	$650,000	$650,000	$650,000	$650,000	$650,000
(d)	Total Revenues	**$19,5236,800**	**$19,950,600**	**$19,215,600**	**$19,570,200**	**$19,634,653**
(e)	Operating Expenses[1]	$11,223,400	$11,536,640	$11,858,936	$12,190,605	$12,531,464
(f)	**Net Revenues (f = d - e)**	**$8,300,400**	**$8,413,960**	**$7,356,664**	**$7,379,595**	**$7,103,189**
(g)	Existing Debt Service on Non-SRF Projects (including coverage)	$0	$0	$0	$0	$0
(h)	Existing SRF Loan Debt Service (including coverage)	$5,354,944	$5,354,945	$2,331,959	$1,633,581	$816,791
(i)	**Total Existing Debt Service (i = g + h)**	**$5,354,944**	**$5,354,945**	**$2,331,959**	**$1,633,581**	**$816,791**
(j)	Projected Debt Service on Non-SRF Future Projects (including coverage)	$0	$0	$0	$0	$0
(k)	Projected SRF Loan Debt Service (including coverage)	$0	$1,180,015	$4,719,830	$4,719,830	$4,719,830
(l)	**Total Debt Service (Existing and Projected) (l = i + j + k)**	**$5,354,944**	**$6,534,959**	**$7,051,789**	**$6,353,411**	**$5,536,621**
(m)	**Net Revenues After Debt Service (m = f – l)**	**$2,945,456**	**$1,879,001**	**$304,875**	**$1,026,184**	**$1,566,568**

Source: Refer to Exhibits 1, 2, 3, and 4 for detailed projections.

Notes: (i.e. rate increases, explanations, etc.)
1. For existing and proposed facilities, excluding interest on debt, depreciation, and other non-cash items.

[1] Based on wastewater rate increases as follows: April 2027: 16%; Oct. 2027: 16%; Oct. 2028: 8%; Oct. 2029: 8%; CPI inflationary adjustments Oct. 2030 and thereafter.

CERTIFICATION

I, Jennifer Johnson , certify that I have reviewed the information
Chief Financial Officer (please print)

included in the preceding capital financing plan worksheets, and to the best of my knowledge, this information accurately reflects the financial capability of City of Marathon
Project Sponsor

I further certify that City of Marathon has the financial capability to ensure
Project Sponsor

adequate construction, operation, and maintenance of the system, including this SRF project.

Jennifer Johnson
Signature

9/3/2026
Date

City of Marathon
Wastewater and Stormwater Financial Forecast

Exhibit 1
Combined Wastewater and Stormwater Debt Service Coverage

Description	2027	2028	2029	2030	2031	2032
System Revenues						
Wastewater Rate Revenue 2027 Rates [1]	$11,010,000	$11,010,000	$11,010,000	$11,010,000	$11,010,000	$11,010,000
Revenue from Rate Adjustments/Index [2]	880,800	3,805,100	4,990,300	6,270,300	6,615,900	6,968,400
Wastewater Assessment Revenue	2,952,700	2,932,600	2,078,100	0	0	0
DIW Assessment Revenue	0	0	0	0	0	0
Wastewater Connection Fee Revenue	50,000	50,000	50,000	0	0	0
Stormwater Assessment Revenue	1,012,000	1,014,100	1,016,200	1,018,300	1,020,300	710,253
Revenue from Rate Adjustments/Index [2]	0	0	0	0	0	0
Other Misc. Revenues	0	0	0	0	0	0
Total Rate and Assessment Revenues	$15,905,500	$18,811,800	$19,144,600	$18,298,600	$18,646,200	$18,688,653
Infrastructure Sales Tax Revenue	$650,000	$650,000	$650,000	$650,000	$650,000	$650,000
Unrestricted Interest Income	98,000	112,000	206,000	267,000	274,000	296,000
Total System Revenues	$16,653,500	$19,573,800	$20,000,600	$19,215,600	$19,570,200	$19,634,653
Operating Expenses						
Wastewater less Legal Services / Extraordinary Circu	$9,457,936	$9,719,500	$10,588,500	$10,883,300	$11,186,440	$11,498,236
Stormwater	311,600	321,000	330,500	340,100	350,200	360,700
Total Operating Expenses	$9,769,536	$10,040,500	$10,919,000	$11,223,400	$11,536,640	$11,858,936
Net Revenues						
Without Infrastructure Tax	$6,233,964	$8,883,300	$8,431,600	$7,342,200	$7,383,560	$7,125,717
With Infrastructure Tax	$6,883,964	$9,533,300	$9,081,600	$7,992,200	$8,033,560	$7,775,717
Wastewater and Stormwater Debt Service						
Existing Debt Service	$4,656,473	$4,656,473	$4,656,473	$2,027,790	$1,420,505	$710,253
LOC	$400,000	$400,000	$0	$0	$0	$0
SRF 44040	$0	$0	$1,026,100	$4,104,200	$4,104,200	$4,104,200
Total Debt Service	$5,056,473	$5,056,473	$5,682,573	$6,131,990	$5,524,705	$4,814,453
Debt Service Coverage						
Coverage Ratio Calculated	1.36	1.89	1.60	1.30	1.45	1.62
Coverage Ratio Target (Minimum)	1.20	1.20	1.20	1.20	1.20	1.20
Net Revenues Less Debt Service	$1,827,491	$4,476,827	$3,399,027	$1,860,210	$2,508,855	$2,961,264

Footnotes:
[1] Wastewater rate revenue is based on rates adopted in 2024 and being implemeted through Oct. 2026 (FY 2027), with additional rate
[2] Revenue from Rate Adjustments and Indexing is based on the following future wastewater rate adjustments:

	2027	2028	2029	2030	2031	2032
Adopted rate increases	7.00%	7.00%	7.00%	1.00%	N/A	N/A
Additional rate increases (beyond Reso. 2024-65)	16.00%	16.00%	8.00%	8.00%	2.00%	2.00%
	Projected	Projected	Projected	Projected	Projected	Projected
Administrative Charge (per Account)	$23.87	$27.69	$29.91	$32.30	$32.95	$33.61
Base Charge (per EDU)	$38.15	$44.25	$47.79	$51.61	$52.64	$53.69
Usage Charge (per 1,000 Gallons)	$13.51	$15.67	$16.92	$18.27	$18.64	$19.01
Residential Bill @ 4,000 Gallons	$116.06	$134.62	$145.38	$156.99	$160.15	$163.34
Increase	$15.99	$18.56	$10.76	$11.61	$3.16	$3.19

City of Marathon
Wastewater and Stormwater Financial Forecast

Exhibit 2
Projected Wastewater Revenue Requirements

Description	2027	2028	2029	2030	2031	2032
Operating Expenses	$9,457,936	$9,719,500	$10,588,500	$10,883,300	$11,186,440	$11,498,236
Other Revenue Requirements						
Existing Debt Service	3,492,355	3,492,355	3,492,355	1,520,843	1,065,379	532,690
Proposed Debt Service						
LOC	400,000	400,000	0	0	0	0
SRF 44040	0	0	1,026,100	4,104,200	4,104,200	4,104,200
Total Debt Service	$3,892,355	$3,892,355	$4,518,455	$5,625,043	$5,169,579	$4,636,890
Capital Expenditures Funded From Rates	$250,000	$250,000	$250,000	$250,000	$250,000	$250,000
Renewal and Replacement Transfer	550,609	564,400	578,600	593,100	608,000	623,200
Transfers to General Fund	335,000	343,400	352,000	360,800	369,900	379,200
Transfers to Vehicle Replacement Fund	0	0	0	0	0	0
Transfers to Operating Account	0	0	0	0	0	0
Total Other Revenue Requirements	$ 1,135,609	$ 1,157,800	$ 1,180,600	$ 1,203,900	$ 1,227,900	$ 1,252,400
Total Gross Revenue Requirements	$ 14,485,900	$ 14,769,655	$ 16,287,555	$ 17,712,243	$ 17,583,919	$ 17,387,526
Less Revenues from Other Sources						
Miscellaneous Revenues (Initiation of Service)	$0	$0	$0	$0	$0	$0
Interest Income	88,000	103,000	196,000	256,000	252,000	261,000
Infrastructure Funds Transfer	0	0	0	0	0	0
Utilization of Original Assessment Revenue for Debt	2,952,700	2,932,600	2,078,100	0	0	0
DIW Assessment	0	0	0	0	0	0
Transfers from/(to) the Stormwater Fund	0	0	0	0	0	0
Transfers From Operating Account	0	0	0	0	0	0
Net Revenue Requirements	$ 11,445,200	$ 11,734,055	$ 14,013,455	$ 17,456,243	$ 17,331,919	$ 17,126,526
Sales Revenues from Rates						
Projected Revenue from Existing Rates (Oct. 2026)	$11,010,000	$11,010,000	$11,010,000	$11,010,000	$11,010,000	$11,010,000
Rate Adjustments and Resulting Revenue						
Effective Month	Apr.	Oct.	Oct.	Oct.	Oct.	Oct.
Effective Month Adjustment	50.00%	100.00%	100.00%	100.00%	100.00%	100.00%
Current Year Rate Adjustment	16.0%	16.00%	8.00%	8.00%	2.00%	2.00%
Additional Revenue from Rate Adjustments	$880,800	$3,805,100	$4,990,300	$6,270,300	$6,615,900	$6,968,400
Annual Wastewater Rate Revenue	$ 11,890,800	$ 14,815,100	$ 16,000,300	$ 17,280,300	$ 17,625,900	$ 17,978,400
Net Revenue Surplus/Deficiency	**445,600**	**3,081,045**	**1,986,845**	**(175,943)**	**293,981**	**851,874**

City of Marathon
Wastewater and Stormwater Financial Forecast

Exhibit 3
Projected Stormwater Revenue Requirements

Description	2027	2028	2029	2030	2031	2032
Operating Expenses	$311,600	$321,000	$330,500	$340,100	$350,200	$360,700
Other Revenue Requirements						
Existing Debt Service	1,164,118	1,164,118	1,164,118	506,948	355,126	177,563
Proposed Debt Service						
SW SRF Loan 1	0	0	0	0	0	0
Total Debt Service	$1,164,118	$1,164,118	$1,164,118	$506,948	$355,126	$177,563
Capital Expenditures from Assessments [2]	$250,000	$100,000	$75,000	$75,000	$75,000	$75,000
Transfer to Vehicle Replacement Fund	0	0	0	0	0	0
Transfers to General Fund	25,700	26,400	27,100	27,800	28,500	29,300
Transfers to Operating Account	0	0	0	0	0	0
Total Other Revenue Requirements	$275,700	$126,400	$102,100	$102,800	$103,500	$104,300
Total Gross Revenue Requirements	$1,751,418	$1,611,518	$1,596,718	$949,848	$808,826	$642,563
Less Revenues from Other Sources						
Miscellaneous Revenues	$0	$0	$0	$0	$0	$0
Interest Income	10,000	9,000	10,000	11,000	22,000	35,000
Transfers from Operating Account	0	0	0	0	0	0
Net Revenue Requirements	$ 1,741,418	$ 1,602,518	$ 1,586,718	$ 938,848	$ 786,826	$ 607,563
Annual Revenues from Assessments						
Existing Annual Assessment Revenue	$ 1,012,000	$ 1,014,100	$ 1,016,200	$ 1,018,300	$ 1,020,300	$ 1,022,400
Rate Adjustments and Resulting Revenue						
Current Year Rate Adjustment	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Additional Revenue from Rate Adjustments	$ -	$ -	$ -	$ -	$ -	$ -
Annual Assessment Revenue after Adj.	$ 1,012,000	$ 1,014,100	$ 1,016,200	$ 1,018,300	$ 1,020,300	$ 1,022,400
Revenue Surplus/Deficiency	$ (729,418)	$ (588,418)	$ (570,518)	$ 79,453	$ 233,474	$ 414,837
Transfers from Wastewater Fund	0	0	0	0	0	0
Infrastructure Funds Transfer	650,000	650,000	650,000	650,000	650,000	650,000
Adjusted Revenue Surplus/Deficiency	**$ (79,418)**	**$ 61,582**	**$ 79,482**	**$ 729,453**	**$ 883,474**	**$ 1,064,837**

City of Marathon
Wastewater and Stormwater Financial Forecast

Exhibit 4
Wastewater Projected Fund Balances

Description	2027	2028	2029	2030	2031	2032
Interest Earnings Rate	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%
Operating Account						
Beginning Balance [1]	$2,940,000	$3,385,600	$6,466,646	$8,453,491	$8,277,548	$8,571,530
Transfers In - Revenue Requirements	445,600	3,081,045	1,986,845	0	293,981	851,874
Transfers In - Debt Service Reserve Fund	0	0	0	0	0	0
Transfers In - Other	0	0	0	0	0	0
Transfers Out - Revenue Requirements	0	0	0	175,943	0	0
Transfers Out - CIP	0	0	0	0	0	0
Transfers Out - SRF Payoff	0	0	0	0	0	0
Ending Balance	$3,385,600	$6,466,646	$8,453,491	$8,277,548	$8,571,530	$9,423,404
Estimated No. of Days of O&M Expenses (Target = 365)	254	243	291	278	280	299
Target Amount (365 days O&M)	$9,457,936	$9,719,500	$10,588,500	$10,883,300	$11,186,440	$11,498,236
Renewal and Replacement Account						
Beginning Balance	$0	$50,609	$65,009	$93,609	$136,709	$144,709
Deposits to Fund:						
From Current Operations	550,609	564,400	578,600	593,100	608,000	623,200
Uses of Funds:						
Capital Improvements	500,000	550,000	550,000	550,000	600,000	600,000
Ending Balance	$50,609	$65,009	$93,609	$136,709	$144,709	$167,909
Assessment/Connection Fee Charges						
Beginning Balance	$0	$0	$0	$0	$0	$0
Deposits to Fund:						
From Assessments	2,902,700	2,882,600	2,028,100	0	0	0
From Connection Fees [2]	50,000	50,000	50,000	0	0	0
Uses of Funds:						
Capital Improvements	0	0	0	0	0	0
Payment of Debt Service	2,952,700	2,932,600	2,078,100	0	0	0
Ending Balance Before Interest Income	$0	$0	$0	$0	$0	$0
Interest Earnings Recognized	0	0	0	0	0	0
Ending Balance	$0	$0	$0	$0	$0	$0
Total Interest Income - Unrestricted Funds						
% of Beginning Balance Assumed for Interest Income	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Unrestricted Earnings	$88,000	$103,000	$196,000	$256,000	$252,000	$261,000

[1] Estimated beginning cash on hand based on City's FY 2025/26 trial balance.

Appendix F
City Council Adoption of Facilities Plan Amendment No. 1