CM/rrp
06/20/2025

RESOLUTION NO 2025-098

CITY OF LAKE CITY, FLORIDA

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF LAKE CITY, FLORIDA, APPROVING THE SECOND AMENDMENT TO THE STANDARD GRANT AGREEMENT NUMBER LP12031 WITH THE FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION FUNDING THE ICHETUCKNEE SPRINGS WATER QUALITY IMPROVEMENT PROJECT; MAKING CERTAIN FINDINGS OF FACT IN SUPPORT THEREOF; RECOGNIZING THE AUTHORITY OF THE MAYOR TO EXECUTE AND BIND THE CITY TO SAID AGREEMENT; DIRECTING THE MAYOR TO EXECUTE AND BIND THE CITY TO SAID AGREEMENT; AUTHORIZING THE MAYOR, AFTER CONSULTATION WITH THE CITY ATTORNEY, TO EXECUTE SUCH FUTURE AMENDMENTS TO THE STANDARD GRANT AGREEMENT WHICH AMENDMENTS ACCEPT ADDITIONAL GRANT FUNDS WITHOUT OTHERWISE EXPANDING THE SCOPE OF THE PROJECT FUNDED BY THE STANDARD GRANT AGREEMENT OR CREATING ADDITIONAL OBLIGATIONS OF THE CITY PURSUANT TO SUCH AGREEMENT, AS AMENDED; REPEALING ALL PRIOR RESOLUTIONS IN CONFLICT; AND PROVIDING AN EFFECTIVE DATE.

WHEREAS, on April 6, 2020, the City of Lake City, Florida (the "City") and the State of Florida, Department of Environmental Protection (the "Agency"), entered into a State of Florida Department of Environmental Protection Standard Grant Agreement LP12031 (the "Agreement") pursuant to City Council Resolution 2020-031 in furtherance of the Ichetucknee Springs water quality improvement project (the "Project"); and

WHEREAS, on January 18, 2022, the City approved and adopted Amendment No. 1 to Agreement No. LP12031 between the Agency and City of Lake City pursuant to City Council Resolution 2022-005, revising the scope of work of the Agreement and approving additional grant funds in the amount of $51,445.00; and

WHEREAS, the Agency has made available to the City additional grant funding which, if accepted by the City, would increase the original grant funds received by an additional

$168,470.00 (the "Additional Grant Funds"), for a total grant award amount of $785,390.00; and

WHEREAS, the Second Amendment also amends the scope of work for the Project and further incorporates additional provisions of relevant amendments to state statues; and

WHEREAS, the City desires to accept the Additional Grant Funds, changes to the scope of work for the Project, and incorporation of relevant amendments to state statue by adopting the second amendment to the Agreement in the form of the amendment attached hereto (the "Second Amendment"); and

WHEREAS, accepting the Additional Grant Funds, changes to the scope of work for the Project, and incorporation of relevant amendments to state statue by adopting the Second Amendment to the Agreement is in the public or community interest and for public welfare, now therefore,

BE IT RESOLVED by the City Council of the City of Lake City, Florida, as follows:

1. Approving Second Amendment is in the public or community interest and for public welfare; and

2. In furtherance thereof, the Second Amendment in the form attached hereto should be and is approved by the City Council of the City of Lake City; and

3. The Mayor of the City of Lake City is the officer of the City duly designated by the City's Code of Ordinances to enforce such rules and regulations as are adopted by the City Council of the City of Lake City; and

4. The Mayor of the City of Lake City is authorized and directed to execute on behalf of and bind the City to the terms of the Agreement; and

5. After consultation with the City Attorney, the Mayor of the City of Lake City is authorized to execute such future amendments to the Standard Grant Agreement which amendments accept additional grant funds without otherwise substantiallyexpanding the scope of the Project or creating substantial additional obligations of the City pursuant to such Agreement, as amended; and

6. All prior resolutions of the City Council of the City of Lake City in conflict with this resolution are hereby repealed to the extent of such conflict; and

7. This resolution shall become effective and enforceable upon final adoption by the City Council of the City of Lake City.

APPROVED AND ADOPTED, by an affirmative vote of a majority of a quorum present of the City Council of the City of Lake City, Florida, at a regular meeting, this ___ day of July, 2025.

BY THE MAYOR OF THE CITY OF LAKE CITY, FLORIDA

_____
Noah E. Walker, Mayor

ATTEST, BY THE CLERK OF THE CITY COUNCIL OF THE CITY OF LAKE CITY, FLORIDA:

_____
Audrey E. Sikes, City Clerk

APPROVED AS TO FORM AND LEGALITY:

_____
Clay Martin, City Attorney

6212 NW 43rd Street, Suite A
Gainesville, FL 32653
(386) 462-9286

SCOPE OF SERVICES

Ichetucknee Quality and Quantity Enhancement Project (IQ²EP) – Third Authorization

PREARED FOR: Cody Pridgeon - City of Lake City

DATE: June 18, 2025

Project Introduction

The Ichetucknee Springs Water Quality Improvement Project (ISWQIP) converted the largest of the City of Lake City's (City) sprayfields to a groundwater recharge wetland to improve water quality. The City now owns and operates the largest groundwater recharge wetland in North Florida, which provides substantial water quality improvement to Ichetucknee Springs. This project represented a new type of full-scale project for the region that benefits the City's and region's population. The Ichetucknee Quality and Quantity Enhancement Project (IQ²EP), expands those benefits by providing additional water quality improvement, enhanced wetland operations, and increased recharge to the Floridan Aquifer. Wetland Solutions, Inc. (WSI) worked with the City to develop the original ISWQIP and assisted the City with operations, water quality monitoring, and technical assistance since the project was constructed. The City and WSI also worked on the development of a funding application to the Florida Department of Environmental Protection (FDEP) to complete a subsequent phase of the initial project to improve treatment, operations, and disposal capacity of the original project.

This project includes two primary project components. The first project component is the design, permitting and construction of pipes and valves to allow treated effluent to flow to the wetland by gravity. This modification will result in more consistent flow to the wetland, improved treatment, increased reliability, and reduced operational costs. The second project component will be the design and permitting of a gravity recharge feature. This modification will provide increased disposal capacity, allowing more water to receive wetland treatment rather than being discharged to the remaining two sprayfields. In addition to increased water quality treatment, the recharge feature will reduce total evapotranspiration from the sprayfield, maximizing aquifer recharge. Finally, this modification will increase wetland effluent management capacity and improve wetland operation by allowing for improved management of stormwater during periods with high rainfall.

Following FDEP approval of funding for this project, the City issued a competitive solicitation to choose a project team and selected the WSI Team (WSI, ASRus, Jones Edmunds, Hydrogeo Consulting, and GSE Engineering) to complete this project. This scope of services describes the work that will be a part of this contract and the level of effort associated with completion of the project. The City will, with assistance from the WSI Team, select a contractor to complete the construction phase activities with oversight from the WSI Team. Following project construction, professional services will continue until final permits are issued and the project becomes fully operational.

Tasks 1.1 through 1.6, and Task 3.4 were previously authorized by the City in March 2020. The second authorization included the bid and construction phase services associated with the gravity pipeline (Tasks 2.2, 3.2, and 3.3). In the original scope, the gravity pipeline component did not anticipate the need for new wetland inflow structures. While the City self-performed construction of the pipeline, a bid package was prepared for the wetland structures. Accordingly, a budget for Task 2.2 was developed and was included in the second authorization request. This third authorization includes Tasks 2.1 and 3.1 for bidding and construction of the recharge feature. Bolded sections of the text and tables represent the scope and budget for this authorization request.

Scope of Services

Task 1 – Preconstruction Activities (Previously Authorized)

Preconstruction activities for this project include wetland performance modeling, gravity flow modification design, gravity recharge well design, and associated permitting activities. Each of these tasks is further described in more detail in the following subtasks.

Subtask 1.1 – Preliminary Engineering (Previously Authorized)

Preliminary engineering will include data collection to complete the detailed design of the gravity flow modifications, recharge well, and the intake structure associated with the well. Data collection will include survey of existing infrastructure in the vicinity of the gravity line modifications to allow for detailed design and tie-in to existing piping. Geotechnical samples will be taken to evaluate subsurface conditions in the area where the intake structure for the well will be constructed.

This subtask will include review of existing data for the treatment features at the site including yard piping, reclaimed treatment infrastructure, existing wetland inflows and as-builts. This review will also include refinement of the initial gravity flow feasibility study completed by Jones Edmunds (under a previous contract) to further refine gravity flow modification needs relative to wetland cell inflow structures. This effort will also include review of applicable regulations to modify the existing facility permit.

Wetland modeling and performance will be evaluated relative to flow modifications and increased inflows. This will include assessment of the current performance of the system and wetland modeling under higher loading rates, between 3 and 4.5 MGD, anticipated as a part of this project. The initial wetland model will be enhanced based on the actual system performance. This evaluation will also consider water quality sampling that will be necessary to support recharge well permitting and development of a water quality database for the project.

To develop the recharge well design this subtask will include a well inventory within the area of review. This task will also include a review of applicable regulations and development of a permitting summary for the recharge well.

Deliverables

- Electronic copies (PDFs) and points file (.TXT or .XYZ) of any survey data collected.
- Electronic copy (PDF) of geotechnical engineering report.

- Electronic copy (PDF) of updated gravity flow technical memorandum.
- Electronic copy (PDF) of wetland performance technical memorandum.
- Electronic copy (PDF) of area-of-review and well inventory technical memorandum.
- Electronic copies (PDFs) of laboratory reports for water quality data.

Subtask 1.2 – FDEP Pre-Application Meeting (Previously Authorized)

This subtask is to complete the preparation for a pre-application meeting with the FDEP for permitting through the Underground Injection Control (UIC) Program and the Wastewater Program. The purposes of this meeting will be to establish requirements for the recharge well, sampling necessary to support permitting, and next steps in the permitting process. Presentation materials will be developed to address the following:

- The proposed well location.
- The proposed well construction details (depths, diameters, materials).
- Proposed target water quality improvements.

Deliverables

- Electronic copies (PDFs) of draft and final pre-application meeting presentation slides.
- Electronic copy (PDF) of pre-application meeting minutes.

Subtask 1.3 – UIC Permit Application (Previously Authorized)

Based on the FDEP pre-application meeting the UIC permit application will be developed. It is expected that this effort will involve development of a conceptual intake figure and draft permit application for a Class V well construction and testing permit. The well construction and testing permit will allow construction and operational testing of the well. The duration of the permit is anticipated to be five years. An operation permit application will be prepared under a future work authorization. The UIC Class V well construction and testing permit package is anticipated to include the following:

- Maps showing the proposed well location, improvements to divert water to the well, and monitoring well locations.
- Drawings showing construction details of the proposed well and monitoring wells.
- Area of review (AOR) for the proposed well based on analytical calculations of expected recharge well radius of influence of the recharge operations.
- Well inventory (prepared in task 1.1) and other AOR considerations.
- Characterization of ambient groundwater quality and surface water quality at the project area based on existing data gathered in 1.1.
- Description and cross-sections of local and regional geology.
- Drilling and testing plan.
- This task provides for a response to one FDEP request for additional information (RAI).

- This task includes collection and analysis of water quality data to support the permit application.

Deliverables

- Electronic copy (PDFs) of draft and final UIC permit application package.
- Electronic copy (PDF) of the RAI.

Subtask 1.4 – Recharge Well Design (Previously Authorized)

In conjunction with the permit being processed the recharge well design will begin. This effort will include design of the well and associated technical specifications. This subtask will also include design drawings and technical specifications for the well intake structure.

The final design for the recharge well will be developed as 60% and final design plans and technical specifications. The design will be summarized and explained in the basis of design report developed for the recharge well.

1.4.1 – 60% Design of Recharge Well and Intake

The project team will prepare two sets of technical specifications and drawings to the 60% level for City approval. One set will include drilling and testing of the recharge well and associated monitoring wells, and the other set will include the intake structure and associated surface facilities and appurtenances. The design will include an intake with coarse wire screen and adjustable weir to control a flow down the well. The intake design will operate by gravity and will not require the use of a pump. The intake design will not include telemetry controls on equipment, filtration will be limited to coarse wire screens, and there will be no pump, siphon, or chemical feed included in the design. The design is anticipated to include 10-15 sheets. Following submittal of the 60% design and technical specifications, a review meeting will be held with the City to review comments. The schedule includes two weeks for City review.

1.4.2 – Final Design of Recharge Well and Intake

The project team will incorporate the comments from the 60% design to produce the final plans and specifications. The basis of design report will also be finalized based on comments received during the 60% design review meeting. The final documents will form the basis of the bid package.

Deliverables

- Electronic copy (PDFs) of draft and final basis of design report.
- Electronic copy (PDFs) of 60% design drawings.
- Electronic copy (PDFs) of 60% design specifications.
- 60% Design Review Meeting
- Electronic copy (PDF) of 60% design review meeting minutes.
- Electronic copy (PDF and CAD) of final design drawings.
- Electronic copy (PDF) of final design specifications.

- Final Design Review Meeting

Subtask 1.5 – Gravity Pipeline Design (Previously Authorized)

This subtask will include development of the design and technical specifications associated with gravity pipeline modifications. This will include development of a basis of design report that describes the modifications and project goals. The design and technical specifications will be developed as 60% and final design plans and technical specifications.

1.5.1 – 60% Design of Gravity Pipeline Modifications

The project team will prepare plans and technical specifications to the 60% level for City approval. The design will include the piping, valves, and appurtenances necessary to convey treated effluent from the existing gravity line that serves the filtration unit to the 24-inch main that feeds the wetlands and sprayfields. If determined feasible during the modeling update (Task 1.1), the design will also include the option to route effluent through the public access reuse (PAR) system disk filters and relocated chlorine contact chamber (future) prior to discharge to the wetlands. Also, if feasible, the design will include improvements to the wetland cell inflow piping to maximize gravity flow delivery. A basis of design report will be prepared summarizing the design development. The design is anticipated to include up to 10 sheets. Following submittal of the 60% design and specifications, a review meeting will be held with the City to review comments. The schedule includes two weeks for City review.

1.5.2 – Final Design of Gravity Pipeline Modifications

The project team will incorporate the comments from the 60% design to produce the final plans and specifications. The basis of design report will also be finalized based on comments received during the 60% design review meeting. The final documents will form the basis of the bid package, should the City elect to bid this component of the work.

Deliverables

- Electronic copies (PDFs) of draft and final basis of design report.
- Electronic copy (PDFs) of 60% design drawings.
- Electronic copy (PDFs) of 60% design specifications.
- 60% Design Review Meeting
- Electronic copy (PDF) of 60% design review meeting minutes.
- Electronic copy (PDF and CAD) of final design drawings.
- Electronic copy (PDF) of final design specifications.
- Final Design Review Meeting

Subtask 1.6 – Operational/Startup Technical Assistance (Previously Authorized)

This subtask will be used to develop the data record necessary to support recharge well permitting. This task will also be used to assist the City with operation before, during, and after construction through project completion. An updated operation and maintenance manual (OMM) will also be developed as part of this subtask. This document will describe the design, intended initial operation, as well as troubleshooting.

Deliverables

- Electronic copies (PDFs) of draft and final O&M manual.

Task 2 – Bidding and Contractor Selection

This task will be used to develop documents necessary for the City to issue a solicitation for construction, answer contractor questions, and assist the City in selection. This task is subdivided into separate subtasks for the two project components given the anticipated differences in project schedule.

Subtask 2.1 – Bidding and Contractor Selection (Recharge Feature)

This subtask covers bidding and drilling contractor selection for the gravity recharge feature. This task includes compiling of bid documents to be issued with the request for proposals (RFP). These documents will include the front-end documents provided by the City, final design plans, technical specifications, and wording to be included in the RFP. Following issuance of the RFP the WSI Team will attend a pre-bid meeting to discuss the project with potential contractors and a site visit to show the project site. During the proposal process the WSI Team will address bid addenda as needed.

Subtask 2.2 – Bidding and Contractor Selection (Previously Authorized)

This subtask covers bidding and contractor selection for the proposed wetland structures. Included in this task is compiling of front-end documents to be issued with the request for proposals (RFP). These documents will include the final design plans, technical specifications, and wording to be included in the RFP. Following issuance of the RFP the WSI Team will attend a pre-bid meeting to discuss the project with potential contractors and a site visit to show the project site. During the proposal process the WSI Team will address bid addenda as needed.

Task 3 – Project Management

The final project task will cover the project management, construction oversight for both project components, associated permit modifications, and construction certification. The following four subtasks are a part of this project.

Subtask 3.1 – Construction Oversight (Recharge Feature)

This subtask of the project will cover construction activities associated with the recharge feature. This will include oversight during construction as well as development of the completion documentation. Finally, this subtask will include certification of construction completion. Specific tasks provided will include the following:

- **Assist with one pre-construction meeting, attended by the contractor and City staff.**
- **Coordinate with City staff for construction observation during construction.**
- **Answer requests for information (RFIs) by the construction contractor.**
- **Facilitate inspections for certification of final completion of construction.**
- **Support the development and review of as-built record drawings.**
- **Pay application review and approval.**

Subtask 3.2 – Pipeline Permit Modification (Previously Authorized)

The WSI Team will modify the existing wastewater permit to include conveyance of water to the wetland by gravity. These permit modifications will be made prior to construction of the gravity pipeline modifications beginning.

Subtask 3.3 – Construction Oversight (Gravity Pipeline) (Previously Authorized)

The WSI Team will provide construction phase oversight of the gravity pipeline modifications. This will include construction administration and resident observation during construction. Following construction completion this will include certification of the construction. Specific tasks include the following:

- Coordinate with City staff for construction observation. Construction of the gravity pipeline modifications is assumed to take 6 weeks. Daily reports will be prepared for each site visit.
- Prepare design clarifications, as needed.
- Answer requests for information (RFIs) by the construction contractor (if bid) or City (if self-performed).
- Facilitate inspections for certification of final completion of construction.
- Support the development and review of as-built record drawings.

Subtask 3.4 – Project Management (Previously Authorized)

This subtask will include all project management activities related to the project. These are expected to include as-needed project meetings, regular progress meetings, attendance at meetings with the City and/or the FDEP, project management, and administration. This will also include developing and submitting supporting material for grant reporting for the City to provide to the FDEP.

Deliverables

- Electronic copies (PDFs) of minutes from progress meetings.
- Monthly invoicing reports including explanation of the work completed during the invoice period; an appraisal of the schedule; if behind schedule, a proposed recovery plan and revised schedule; and an outline of proposed activities during the next invoice period.

Assumptions

WSI has made the following assumptions in preparing this scope:

- The City is responsible for all permit application fees.
- The proposed recharge feature will not require pumps, electricity, fine filtration, or additional pre-treatment before injection by gravity flow.
- The UIC permit will not require analysis of additional treatment alternatives or other modifications to the proposed intake and well.

Fee

Exhibit 1 summarizes estimated costs for the tasks described above. Work will be billed and compensated on a time and materials basis, based on the attached rate schedule (**Exhibit 2**) and will be invoiced monthly. WSI will not work beyond the authorized amount without additional authorization from the City. The initial request for Commission approval was for Tasks 1.1 – 1.6 and Task 3.4, totaling $565,475. The second request for Commission approval was for Tasks 2.2, 3.2, and 3.3, totaling $51,445. The addition of fee for Task 2.2 resulted in a net overall project budget increase of $11,960. **This third authorization request is for Tasks 2.1 ($14,980) and 3.1 ($153,490), totaling $168,470.**

Schedule

The project was put on hold while waiting for additional funding to be secured for the companion project to construct additional wetlands at the Steedley Sprayfield. In addition, the concept of installing a UIC well was replaced in favor of a passive recharge feature. Bidding of the construction phase of this project is anticipated to occur in the 4th quarter of 2025, with construction commencing in early 2026. Construction should be completed by mid-2027. An expiration date for the authorization of December 31, 2027 is requested.

Exhibit 1. Estimated Time and Materials Costs

Task	Description	Hours	Cost	Expenses	Total
1.1	Preliminary Engineering	249	$32,200	$10,250[1]	$42,450
1.2	FDEP Pre-application Meeting	80	$11,615	$200	$11,815
1.3	UIC Permit Application	992	$120,820	$56,580[2]	$177,400
1.4	Recharge Well Design	576	$84,050	--	$84,050
1.5	Gravity Pipeline Design	480	$71,790	--	$71,790
1.6	Operation and Startup Technical Assistance	248	$31,220	--	$31,220
Grant Task 1 – Preconstruction Activities		2,625	$351,695	$67,030	$418,725
2.1	**Bidding and Contractor Selection (Recharge Feature)**	**109**	**$14,880**	**$100**	**$14,980**
2.2	Bidding and Contractor Selection (Pipeline)	80	$11,960	--	$11,960
Grant Task 2 – Bidding and Contractor Selection		189	$26,840	$100	$26,940
3.1	**Recharge Feature Construction Oversight**	**1,205**	**$153,490**	**--**	**$153,490**
3.2	Pipeline Permit Modification	97	$14,205	--	$14,205
3.3	Pipeline Construction Oversight	204	$25,280	--	$25,280
3.4	Project Management	1,045	$144,900	$1,850	$146,750
Grant Task 3 – Project Management		2,551	$337,875	$1,850	$339,725
Grand Total		5,285	$716,410	$68,980	$785,390

[1]Expense is allowance for surveying and geotechnical investigations

[2]Includes equipment and laboratory analysis for water quality investigations related to UIC permitting.

Exhibit 2. Labor Cost Schedule for Consulting Services

Firm	Staff	Role	Billing Rate ($/hr)
WSI	Chris Keller, PE	Project Manager - Senior Engineer	$150
	Ron Clarke	Senior Environmental Scientist	$115
	Scott Knight, PhD, PE	Project Engineer	$105
ASRus	Mark McNeal, PG	Professional Geologist	$180
	Pete Larkin, PG	Project Hydrogeologist	$150
	Romy Lahera, PG	Project Hydrogeologist	$120
	Mike Weatherby, PG	Project Hydrogeologist	$120
Jones Edmunds	Tom Friedrich, PE	Senior QC Engineer	$225
	Fred Hoyt, PE	PM Lead Engineer	$225
	John Horvath	Senior Engineer	$215
	Amy Goodden	Project Engineer	$170
	TBD	Construction Resident Observer	$155
	TBD	Quality Control Professional	$120
	TBD	Cad Designer	$115
	TBD	Editor	$85
	TBD	Administrative Assistant	$85

Effective Date of Authorization

This scope of work is effective on the date of execution and WSI is authorized to begin work upon receipt of written authorization from the City of Lake City.

In witness of this agreement, the parties below provide their approval.

Wetland Solutions, Inc.		**City of Lake City**	
By:	_____	By:	_____
Title:	_____	Title:	_____
Date:	_____	Date:	_____

Wetland Solutions Inc

5302 NW 156th Avenue
Gainesville, FL 32653
(386) 462-9286
(386) 462-3196 fax

SCOPE OF SERVICES

Ichetucknee Quality and Quantity Enhancement Project (IQ²EP) – Second Authorization

PREARED FOR: Cody Pridgeon - City of Lake City

DATE: January 3, 2022

Project Introduction

The Ichetucknee Springs Water Quality Improvement Project (ISWQIP) converted the largest of the City of Lake City's (City) sprayfields to a groundwater recharge wetland to improve water quality. The City now owns and operates the largest groundwater recharge wetland in North Florida, which provides substantial water quality improvement to Ichetucknee Springs. This project represented a new type of full-scale project for the region that benefits the City's and region's population. The Ichetucknee Quality and Quantity Enhancement Project (IQ²EP), expands those benefits by providing additional water quality improvement, enhanced wetland operations, and increased recharge to the Floridan Aquifer. Wetland Solutions, Inc. (WSI) worked with the City to develop the original ISWQIP and assisted the City with operations, water quality monitoring, and technical assistance since the project was constructed. The City and WSI also worked on the development of a funding application to the Florida Department of Environmental Protection (FDEP) to complete a subsequent phase of the initial project to improve treatment, operations, and disposal capacity of the original project.

This project includes two primary project components. The first project component is the design, permitting and construction of pipes and valves to allow treated effluent to flow to the wetland by gravity. This modification will result in more consistent flow to the wetland, improved treatment, increased reliability, and reduced operational costs. The second project component will be the design and permitting of a gravity recharge well. This modification will provide increased disposal capacity, allowing more water to receive wetland treatment rather than being discharged to the remaining two sprayfields. In addition to increased water quality treatment, the recharge well will reduce total evapotranspiration from the sprayfield, maximizing aquifer recharge. Finally, this modification will increase wetland effluent management capacity and improve wetland operation by allowing for improved management of stormwater during periods with high rainfall.

Following FDEP approval of funding for this project, the City issued a competitive solicitation to choose a project team and selected the WSI Team (WSI, ASRus, Jones Edmunds, Hydrogeo Consulting, and GSE Engineering) to complete this project. This scope of services describes the work that will be a part of this contract and the level of effort associated with completion of the project. This scope of services specifically covers Task 1 (Preconstruction Activities), Task 2 (Bidding and Contractor Selection), and Task 3 (Project Management) of the approved Grant Agreement. The City will, with assistance from the WSI Team, select a contractor to complete the construction phase activities with oversight from the WSI Team. Following project construction,

professional services will continue until final permits are issued and the project becomes fully operational.

Tasks 1.1 through 1.6 and Task 3.4 were previously authorized by the City in March 2020. This request is for authorization of the bid and construction phase services associated with the gravity pipeline (Tasks 2.2, 3.2, and 3.3). In the original scope, the gravity pipeline component did not anticipate the need for new wetland inflow structures. While the City still intends to self-perform construction of the pipeline, a bid package will need to be prepared for the wetland structures. Accordingly, a budget for Task 2.2 has been developed and is included in this authorization request. Bolded sections of the text and tables represent the scope and budget for this authorization request.

Scope of Services

Task 1 – Preconstruction Activities (Previously Authorized)

Preconstruction activities for this project include wetland performance modeling, gravity flow modification design, gravity recharge well design, and associated permitting activities. Each of these tasks is further described in more detail in the following subtasks.

Subtask 1.1 - Preliminary Engineering

Preliminary engineering will include data collection to complete the detailed design of the gravity flow modifications, recharge well, and the intake structure associated with the well. Data collection will include survey of existing infrastructure in the vicinity of the gravity line modifications to allow for detailed design and tie-in to existing piping. Geotechnical samples will be taken to evaluate subsurface conditions in the area where the intake structure for the well will be constructed.

This subtask will include review of existing data for the treatment features at the site including yard piping, reclaimed treatment infrastructure, existing wetland inflows and as-builts. This review will also include refinement of the initial gravity flow feasibility study completed by Jones Edmunds (under a previous contract) to further refine gravity flow modification needs relative to wetland cell inflow structures. This effort will also include review of applicable regulations to modify the existing facility permit.

Wetland modeling and performance will be evaluated relative to flow modifications and increased inflows. This will include assessment of the current performance of the system and wetland modeling under higher loading rates, between 3 and 4.5 MGD, anticipated as a part of this project. The initial wetland model will be enhanced based on the actual system performance. This evaluation will also consider water quality sampling that will be necessary to support recharge well permitting and development of a water quality database for the project.

To develop the recharge well design this subtask will include a well inventory within the area of review. This task will also include a review of applicable regulations and development of a permitting summary for the recharge well.

Deliverables

- Electronic copies (PDFs) and points file (.TXT or .XYZ) of any survey data collected.

- Electronic copy (PDF) of geotechnical engineering report.
- Electronic copy (PDF) of updated gravity flow technical memorandum.
- Electronic copy (PDF) of wetland performance technical memorandum.
- Electronic copy (PDF) of area-of-review and well inventory technical memorandum.
- Electronic copies (PDFs) of laboratory reports for water quality data.

Subtask 1.2 – FDEP Pre-Application Meeting

This subtask is to complete the preparation for a pre-application meeting with the FDEP for permitting through the Underground Injection Control (UIC) Program and the Wastewater Program. The purposes of this meeting will be to establish requirements for the recharge well, sampling necessary to support permitting, and next steps in the permitting process. Presentation materials will be developed to address the following:

- The proposed well location.
- The proposed well construction details (depths, diameters, materials).
- Proposed target water quality improvements.

Deliverables

- Electronic copies (PDFs) of draft and final pre-application meeting presentation slides.
- Electronic copy (PDF) of pre-application meeting minutes.

Subtask 1.3 – UIC Permit Application

Based on the FDEP pre-application meeting the UIC permit application will be developed. It is expected that this effort will involve development of a conceptual intake figure and draft permit application for a Class V well construction and testing permit. The well construction and testing permit will allow construction and operational testing of the well. The duration of the permit is anticipated to be five years. An operation permit application will be prepared under a future work authorization. The UIC Class V well construction and testing permit package is anticipated to include the following:

- Maps showing the proposed well location, improvements to divert water to the well, and monitoring well locations.
- Drawings showing construction details of the proposed well and monitoring wells.
- Area of review (AOR) for the proposed well based on analytical calculations of expected recharge well radius of influence of the recharge operations.
- Well inventory (prepared in task 1.1) and other AOR considerations.
- Characterization of ambient groundwater quality and surface water quality at the project area based on existing data gathered in 1.1.
- Description and cross-sections of local and regional geology.
- Drilling and testing plan.

- This task provides for a response to one FDEP request for additional information (RAI).
- This task includes collection and analysis of water quality data to support the permit application.

Deliverables

- Electronic copy (PDFs) of draft and final UIC permit application package.
- Electronic copy (PDF) of the RAI.

Subtask 1.4 – Recharge Well Design

In conjunction with the permit being processed the recharge well design will begin. This effort will include design of the well and associated technical specifications. This subtask will also include design drawings and technical specifications for the well intake structure.

The final design for the recharge well will be developed as 60% and final design plans and technical specifications. The design will be summarized and explained in the basis of design report developed for the recharge well.

1.4.1 – 60% Design of Recharge Well and Intake

The project team will prepare two sets of technical specifications and drawings to the 60% level for City approval. One set will include drilling and testing of the recharge well and associated monitoring wells, and the other set will include the intake structure and associated surface facilities and appurtenances. The design will include an intake with coarse wire screen and adjustable weir to control a flow down the well. The intake design will operate by gravity and will not require the use of a pump. The intake design will not include telemetry controls on equipment, filtration will be limited to coarse wire screens, and there will be no pump, siphon, or chemical feed included in the design. The design is anticipated to include 10-15 sheets. Following submittal of the 60% design and technical specifications, a review meeting will be held with the City to review comments. The schedule includes two weeks for City review.

1.4.2 – Final Design of Recharge Well and Intake

The project team will incorporate the comments from the 60% design to produce the final plans and specifications. The basis of design report will also be finalized based on comments received during the 60% design review meeting. The final documents will form the basis of the bid package.

Deliverables

- Electronic copy (PDFs) of draft and final basis of design report.
- Electronic copy (PDFs) of 60% design drawings.
- Electronic copy (PDFs) of 60% design specifications.
- 60% Design Review Meeting
- Electronic copy (PDF) of 60% design review meeting minutes.
- Electronic copy (PDF and CAD) of final design drawings.

- Electronic copy (PDF) of final design specifications.
- Final Design Review Meeting

Subtask 1.5 – Gravity Pipeline Design

This subtask will include development of the design and technical specifications associated with gravity pipeline modifications. This will include development of a basis of design report that describes the modifications and project goals. The design and technical specifications will be developed as 60% and final design plans and technical specifications.

1.5.1 – 60% Design of Gravity Pipeline Modifications

The project team will prepare plans and technical specifications to the 60% level for City approval. The design will include the piping, valves, and appurtenances necessary to convey treated effluent from the existing gravity line that serves the filtration unit to the 24-inch main that feeds the wetlands and sprayfields. If determined feasible during the modeling update (Task 1.1), the design will also include the option to route effluent through the public access reuse (PAR) system disk filters and relocated chlorine contact chamber (future) prior to discharge to the wetlands. Also, if feasible, the design will include improvements to the wetland cell inflow piping to maximize gravity flow delivery. A basis of design report will be prepared summarizing the design development. The design is anticipated to include up to 10 sheets. Following submittal of the 60% design and specifications, a review meeting will be held with the City to review comments. The schedule includes two weeks for City review.

1.5.2 – Final Design of Gravity Pipeline Modifications

The project team will incorporate the comments from the 60% design to produce the final plans and specifications. The basis of design report will also be finalized based on comments received during the 60% design review meeting. The final documents will form the basis of the bid package, should the City elect to bid this component of the work.

Deliverables

- Electronic copies (PDFs) of draft and final basis of design report.
- Electronic copy (PDFs) of 60% design drawings.
- Electronic copy (PDFs) of 60% design specifications.
- 60% Design Review Meeting
- Electronic copy (PDF) of 60% design review meeting minutes.
- Electronic copy (PDF and CAD) of final design drawings.
- Electronic copy (PDF) of final design specifications.
- Final Design Review Meeting

Subtask 1.6 – Operational/Startup Technical Assistance

This subtask will be used to develop the data record necessary to support recharge well permitting. This task will also be used to assist the City with operation before, during, and after construction through project completion. An updated operation and maintenance manual

(OMM) will also be developed as part of this subtask. This document will describe the design, intended initial operation, as well as troubleshooting.

Deliverables

- Electronic copies (PDFs) of draft and final O&M manual.

Task 2 – Bidding and Contractor Selection

This task will be used to develop documents necessary for the City to issue a solicitation for construction, answer contractor questions, and assist the City in selection. This task is subdivided into separate subtasks for the two project components given the anticipated differences in project schedule.

Subtask 2.1 – Bidding and Contractor Selection (Recharge Well)

This subtask covers bidding and drilling contractor selection for the gravity recharge well. This task includes compiling of bid documents to be issued with the request for proposals (RFP). These documents will include the front-end documents provided by the City, final design plans, technical specifications, and wording to be included in the RFP. Following issuance of the RFP the WSI Team will attend a pre-bid meeting to discuss the project with potential contractors and a site visit to show the project site. During the proposal process the WSI Team will address bid addenda as needed.

Subtask 2.2 – Bidding and Contractor Selection (Wetland Structures)

This subtask covers bidding and contractor selection for the proposed wetland structures. Included in this task is compiling of front-end documents to be issued with the request for proposals (RFP). These documents will include the final design plans, technical specifications, and wording to be included in the RFP. Following issuance of the RFP the WSI Team will attend a pre-bid meeting to discuss the project with potential contractors and a site visit to show the project site. During the proposal process the WSI Team will address bid addenda as needed.

Task 3 – Project Management

The final project task will cover the project management, construction oversight for both project components, associated permit modifications, and construction certification. The following four subtasks are a part of this project.

Subtask 3.1 – Construction Oversight (Recharge Well)

This subtask of the project will cover construction activities associated with the recharge well. This will include drilling oversight during well construction as well as development of the well completion report. The construction oversight will also include resident observation during construction of the intake diversion structure that will allow water to be conveyed to the gravity recharge well. Finally, this subtask will include certification of construction completion. Specific tasks provided will include the following:

- Assist with one pre-construction meeting, attended by the well drilling contractor and City staff.

- Coordinate with City staff for construction observation during drilling events. Construction of the recharge well and monitoring wells is assumed to take 10 weeks and will require nearly complete coverage by a qualified hydrogeologist due to FDEP UIC permit requirements. Daily drilling reports will be prepared for each site visit per permitting requirements.
- Prepare and submit to FDEP weekly summary reports as required by the UIC permit.
- Prepare and submit to FDEP casing seat requests based on review and interpretation of hydrogeologic data collected during well construction and testing.
- Provide review of well construction specifications and prepare design clarifications, as needed.
- Answer requests for information (RFIs) by the well construction contractor.
- Facilitate inspections for certification of final completion of construction.
- Support the development and review of as-built record drawings.
- Pay application review and approval.
- Prepare well testing procedures during drilling and review well performance testing documentation.

A well completion report will be prepared following construction activities. The report will be signed and sealed by a Florida-registered Professional Geologist. The City will be provided with one electronic copy of the report for submittal to FDEP as required by permit.

Subtask 3.2 – Pipeline Permit Modification

The WSI Team will modify the existing wastewater permit to include conveyance of water to the wetland by gravity. These permit modifications will be made prior to construction of the gravity pipeline modifications beginning.

Subtask 3.3 – Construction Oversight (Gravity Pipeline)

The WSI Team will provide construction phase oversight of the gravity pipeline modifications. This will include construction administration and resident observation during construction. Following construction completion this will include certification of the construction. Specific tasks include the following:

- **Coordinate with City staff for construction observation. Construction of the gravity pipeline modifications is assumed to take 6 weeks. Daily reports will be prepared for each site visit.**
- **Prepare design clarifications, as needed.**
- **Answer requests for information (RFIs) by the construction contractor (if bid) or City (if self-performed).**
- **Facilitate inspections for certification of final completion of construction.**
- **Support the development and review of as-built record drawings.**

Subtask 3.4 – Project Management (Previously Authorized)

This subtask will include all project management activities related to the project. These are expected to include as-needed project meetings, regular progress meetings, attendance at meetings with the City and/or the FDEP, project management, and administration. This will also include developing and submitting supporting material for grant reporting for the City to provide to the FDEP.

Deliverables

- Electronic copies (PDFs) of minutes from progress meetings.
- Monthly invoicing reports including explanation of the work completed during the invoice period; an appraisal of the schedule; if behind schedule, a proposed recovery plan and revised schedule; and an outline of proposed activities during the next invoice period.

Assumptions

WSI has made the following assumptions in preparing this scope:

- The City is responsible for all permit application fees.
- The proposed recharge well will not require pumps, electricity, fine filtration, or additional pre-treatment before injection by gravity flow.
- The UIC permit will not require analysis of additional treatment alternatives or other modifications to the proposed intake and well.

Fee

Exhibit 1 summarizes estimated costs for the tasks described above. Work will be billed and compensated on a time and materials basis, based on the attached rate schedule (**Exhibit 2**) and will be invoiced monthly. WSI will not work beyond the authorized amount without additional authorization from the City. The initial request for Commission approval was for Tasks 1.1 – 1.6 and Task 3.4, totaling $565,475. **This second request for Commission approval is for Tasks 2.2, 3.2, and 3.3, totaling $51,445. The addition of fee for Task 2.2 results in a net overall project budget increase of $11,960.**

Schedule

The project schedule is attached as Exhibit A. Preliminary engineering tasks are substantially complete. Gravity pipeline plans and specifications are complete. The FDEP preapplication meeting was held on July 21, 2020, and the final UIC permit was submitted on December 10, 2020. The City has received and responded to two (2) requests for additional information (RAIs), with the most recent response submitted on September 10, 2021. The FDEP has not yet indicated whether the recharge well construction permit will be issued. Accordingly, tasks related to the final design of the well and bidding and construction of the well have not commenced. The schedule for these tasks will be updated when the project team receives direction from the FDEP. The schedule below has been updated to reflect the current proposed schedule for the gravity pipeline bid and construction phases.

Exhibit 1. Estimated Time and Materials Costs

Task	Description	Hours	Cost	Expenses	Total
1.1	Preliminary Engineering	249	$32,200	$10,250[1]	$42,450
1.2	FDEP Pre-application Meeting	80	$11,615	$200	$11,815
1.3	UIC Permit Application	992	$120,820	$56,580[2]	$177,400
1.4	Recharge Well Design	576	$84,050	--	$84,050
1.5	Gravity Pipeline Design	480	$71,790	--	$71,790
1.6	Operation and Startup Technical Assistance	248	$31,220	--	$31,220
Grant Task 1 – Preconstruction Activities		2,625	$351,695	$67,030	$418,725
2.1	Bidding and Contractor Selection (Well)	109	$14,880	$100	$14,980
2.2	**Bidding and Contractor Selection (Pipeline)**	**80**	**$11,960**	--	**$11,960**
Grant Task 2 – Bidding and Contractor Selection		189	$26,840	$100	$26,940
3.1	Well Construction Oversight	1,205	$153,490	--	$153,490
3.2	**Pipeline Permit Modification**	**97**	**$14,205**	--	**$14,205**
3.3	**Pipeline Construction Oversight**	**204**	**$25,280**	--	**$25,280**
3.4	Project Management	1,045	$144,900	$1,850	$146,750
Grant Task 3 – Project Management		2,551	$337,875	$1,850	$339,725
Grand Total		5,285	$716,410	$68,980	$785,390

[1]Expense is allowance for surveying and geotechnical investigations

[2]Includes equipment and laboratory analysis for water quality investigations related to UIC permitting.

Exhibit 2. Labor Cost Schedule for Consulting Services

Firm	Staff	Role	Billing Rate ($/hr)
WSI	Chris Keller, PE	Project Manager - Senior Engineer	$150
	Ron Clarke	Senior Environmental Scientist	$115
	Scott Knight, PhD, PE	Project Engineer	$105
ASRus	Mark McNeal, PG	Professional Geologist	$180
	Pete Larkin, PG	Project Hydrogeologist	$150
	Romy Lahera, PG	Project Hydrogeologist	$120
	Mike Weatherby, PG	Project Hydrogeologist	$120
Jones Edmunds	Tom Friedrich, PE	Senior QC Engineer	$225
	Fred Hoyt, PE	PM Lead Engineer	$225
	John Horvath	Senior Engineer	$215
	Amy Goodden	Project Engineer	$170
	TBD	Construction Resident Observer	$155
	TBD	Quality Control Professional	$120
	TBD	Cad Designer	$115
	TBD	Editor	$85
	TBD	Administrative Assistant	$85

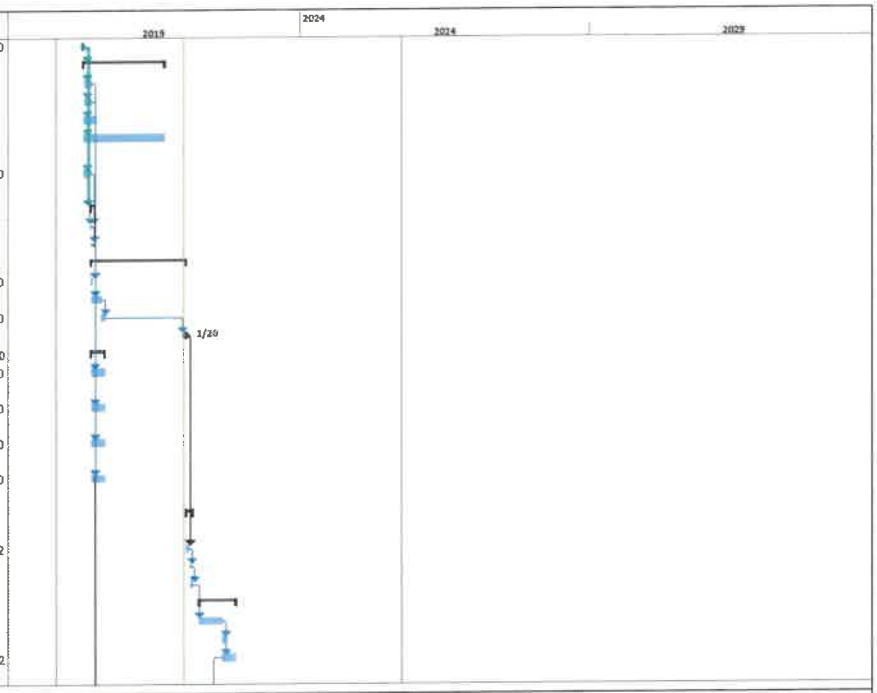
Effective Date of Authorization

This scope of work is effective on the date of execution and WSI is authorized to begin work upon receipt of written authorization from the City of Lake City.

In witness of this agreement, the parties below provide their approval.

Wetland Solutions, Inc.		**City of Lake City**	
By:	_____	By:	_____
Title:	_____	Title:	_____
Date:	_____	Date:	_____

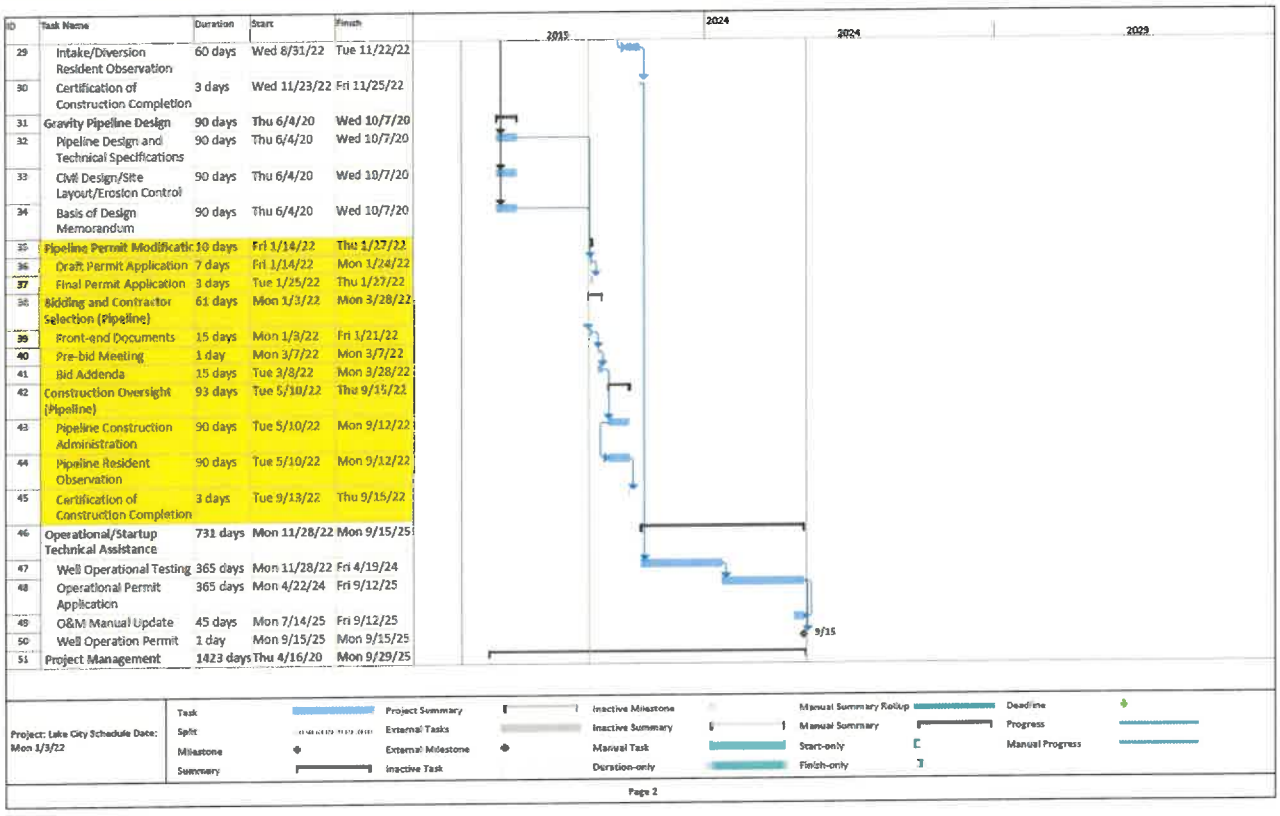
ID	Task Name	Duration	Start	Finish
1	Notice to Proceed	1 day	Wed 4/15/20	Wed 4/15/20
2	Preliminary Engineering	365 days	Thu 4/16/20	Wed 9/8/21
3	Survey	30 days	Thu 4/23/20	Wed 6/3/20
4	Geotechnical Investigatio	30 days	Thu 4/23/20	Wed 6/3/20
5	Data Review and Evaluati	60 days	Thu 4/16/20	Wed 7/8/20
6	Wetland Water Quality Evaluation	365 days	Thu 4/16/20	Wed 9/8/21
7	Well Inventory/Area of Review	30 days	Thu 4/16/20	Wed 5/27/20
8	FDEP Pre-Application Meet	5 days	Thu 5/28/20	Wed 6/3/20
9	Presentation Preparation	2 days	Thu 5/28/20	Fri 5/29/20
10	FDEP Meeting	1 day	Wed 6/3/20	Wed 6/3/20
11	UIC Permit Application	426 days	Thu 6/4/20	Thu 1/20/22
12	Conceptual Intake Figure	5 days	Thu 6/4/20	Wed 6/10/20
13	Draft Permit Application	45 days	Thu 6/4/20	Wed 8/5/20
14	Final Permit Application	15 days	Thu 8/6/20	Wed 8/26/20
15	Well Construction Permit	1 day	Thu 1/20/22	Thu 1/20/22
16	Recharge Well Design	60 days	Thu 6/4/20	Wed 8/26/20
17	Well Design and Technical Specifications	60 days	Thu 6/4/20	Wed 8/26/20
18	Surface Facility Design and Technical	60 days	Thu 6/4/20	Wed 8/26/20
19	Civil Design/Site Layout/Erosion Control	60 days	Thu 6/4/20	Wed 8/26/20
20	Basis of Design Memorandum	60 days	Thu 6/4/20	Wed 8/26/20
21	Bidding and Contractor Selection (Well)	28 days	Fri 1/21/22	Tue 3/1/22
22	Front-end Documents	7 days	Fri 1/21/22	Mon 1/31/22
23	Pre-bid Meeting	1 day	Tue 2/15/22	Tue 2/15/22
24	Bid Addenda	10 days	Wed 2/16/22	Tue 3/1/22
25	Construction Oversight (Wi	163 days	Wed 4/13/22	Fri 11/25/22
26	Drilling Oversight	100 days	Wed 4/13/22	Tue 8/30/22
27	Well Completion Report	15 days	Wed 8/31/22	Tue 9/20/22
28	Intake/Diversion Construction Oversight	60 days	Wed 8/31/22	Tue 11/22/22



Project: Lake City Schedule Date: Mon 1/3/22

Task | Split | Milestone | Summary | Project Summary | External Tasks | External Milestone | Inactive Task | Inactive Milestone | Inactive Summary | Manual Task | Duration-only | Manual Summary Rollup | Manual Summary | Start-only | Finish-only | Deadline | Progress | Manual Progress

Page 1



ID	Task Name	Duration	Start	Finish
29	Intake/Diversion Resident Observation	60 days	Wed 8/31/22	Tue 11/22/22
30	Certification of Construction Completion	3 days	Wed 11/23/22	Fri 11/25/22
31	**Gravity Pipeline Design**	**90 days**	**Thu 6/4/20**	**Wed 10/7/20**
32	Pipeline Design and Technical Specifications	90 days	Thu 6/4/20	Wed 10/7/20
33	Civil Design/Site Layout/Erosion Control	90 days	Thu 6/4/20	Wed 10/7/20
34	Basis of Design Memorandum	90 days	Thu 6/4/20	Wed 10/7/20
35	**Pipeline Permit Modificatic**	**10 days**	**Fri 1/14/22**	**Thu 1/27/22**
36	Draft Permit Application	7 days	Fri 1/14/22	Mon 1/24/22
37	Final Permit Application	3 days	Tue 1/25/22	Thu 1/27/22
38	**Bidding and Contractor Selection (Pipeline)**	**61 days**	**Mon 1/3/22**	**Mon 3/28/22**
39	Front-end Documents	15 days	Mon 1/3/22	Fri 1/21/22
40	Pre-bid Meeting	1 day	Mon 3/7/22	Mon 3/7/22
41	Bid Addenda	15 days	Tue 3/8/22	Mon 3/28/22
42	**Construction Oversight (Pipeline)**	**93 days**	**Tue 5/10/22**	**Thu 9/15/22**
43	Pipeline Construction Administration	90 days	Tue 5/10/22	Mon 9/12/22
44	Pipeline Resident Observation	90 days	Tue 5/10/22	Mon 9/12/22
45	Certification of Construction Completion	3 days	Tue 9/13/22	Thu 9/15/22
46	**Operational/Startup Technical Assistance**	**731 days**	**Mon 11/28/22**	**Mon 9/15/25**
47	Well Operational Testing	365 days	Mon 11/28/22	Fri 4/19/24
48	Operational Permit Application	365 days	Mon 4/22/24	Fri 9/12/25
49	O&M Manual Update	45 days	Mon 7/14/25	Fri 9/12/25
50	Well Operation Permit	1 day	Mon 9/15/25	Mon 9/15/25
51	**Project Management**	**1423 days**	**Thu 4/16/20**	**Mon 9/29/25**