



CLEAN WATER REQUEST FOR FUNDING

TO: Ethan Morrow

THROUGH: Mike Chase Michael Chase Digitally signed by Michael Chase
Date: 2024.07.25 09:27:08 -04'00'

Project Cost Worksheet Attached as PDF

FROM: Catherine Murray Digitally signed by Catherine Murray
Date: 2024.07.24 15:28:20 -04'00'

Priority Score Entered in Database

DATE: 07/24/24

Met Deadlines

PROJECT WW 10042 - Green Cove Springs

DESCRIPTION Harbor Road WWTF Expansion, Phase 2

The applicant has requested that the project be placed on the fundable portion of the priority list on 08/14/24. The project meets requirements for funding as evidenced by completion of the following criteria:

Affordability Index:	<u>101.58</u>	Priority Score:	<u>459.84</u>
Service Area Population:	<u>6984</u>	Principal Forgiveness/Grant %:	<u>0</u>

Preconstruction Funding Loan Type: Planning: Design: Rollover to Design:

RFI Complete/Updated	Date	_____
Planning Documents Complete	Date	_____
Consultant Contract Received? yes or no		_____
Rollover to Design? yes or no		_____
(If yes, complete loan increase below)		
Principal Forgiveness <input type="checkbox"/> or Grant <input type="checkbox"/>	Listing Amount	_____
Loan Listing Amount (this only includes loan to be repaid)		_____
Other Funding Amount		_____
<u>Total Authorized SRF Loan Amount</u>		<u>0</u>

Construction Funding

Segment Cap Project

RFI Complete/Updated	Date	_____
Planning Documents Complete	Date	_____
Biddable Plans/Specs or RFP/RFQ Complete	Date	_____
Construction Permit Issued/Intent to Issue	Date	_____
Site Certification	Date	_____
Principal Forgiveness <input type="checkbox"/> or Grant <input type="checkbox"/>	Listing Amount	_____
Loan Listing Amount (this only includes loan to be repaid)		_____
Other Funding Amount		_____
<u>Total Authorized SRF Loan Amount</u>		<u>0</u>

No. of Contracts _____
Contract Title(s) _____

Project Funding Increase

Justification for Increase Attached? yes or no	<u>yes</u>
Principal Forgiveness <input type="checkbox"/> or Grant <input type="checkbox"/>	Listing Amount <u>0</u>
Loan Listing Amount (this only includes loan to be repaid)	<u>953000</u>
Other Funding Amount	<u>1500000</u>
Principal Forgiveness <input type="checkbox"/> or Grant <input checked="" type="checkbox"/>	Amount Previously Awarded <u>4452835</u>
Loan Amount Previously Awarded (this only includes loan to be repaid)	<u>13733665</u>
<u>Total Authorized SRF Loan Amount</u>	<u>19139500</u>

Comments: _____

Enter Census Place Number below

(a list of census place numbers and names is found on Census Place tab)

DATE:	7/24/24	Calculated Field	Data Entry Field	
Project Sponsor	Green Cove Springs			
Project Number for Planning/Design				
Project Number for Construction	WW100420			
Number	Census Place Number	Census Place Name	Index Number	Population
1	27400	Green Cove Springs	102	6,984
2	0	0	0	0
3	0	0	0	0
4	0	0	0	0
5	0	0	0	0
6	0	0	0	0
7	0	0	0	0
8	0	0	0	0
9	0	0	0	0
10	0	0	0	0
11	0	0	0	0
12	0	0	0	0
13	0	0	0	0
14	0	0	0	0
15	0	0	0	0
16	0	0	0	0
17	0	0	0	0
18	0	0	0	0
19	0	0	0	0
20	0	0	0	0
21	0	0	0	0
22	0	0	0	0
23	0	0	0	0
24	0	0	0	0
25	0	0	0	0
Summary			102	6,984
Quarter	Fiscal Year			
1st	2025	Bond Buyer 20-Bond GO Index Rate =	3.95%	
		Financing Rate for Planning/Design =	not calculated	
		Financing Rate for Construction =	0.64%	

Construction Cost Increase Calculation

Green Cove Springs

WW100420

DATE: 7/24/24

Comments: All applicable questions below must be answered before the calculation fields will populate. The \$ amount of principal forgiveness/grant awarded for an increase must be entered into the appropriate field below before the principal forgiveness/grant calculation fields will populate. Contingency from original construction cost sheet will be reduced from 10% to 5% of bid costs, and will be reflected in contingency of cost increase as a positive or negative value; but the original \$ amount of principal forgiveness/grant awarded does not change.

Increase Number:	1	2	3
Enter 'yes' for each increase as they apply	Yes		
Increase qualifies for principal forgiveness? (yes or no)	No		
Increase within the original scope of work? (yes or no)	Yes		
		PF/Grant %	70%

Cost Increase #1							
Original Cost		Cost Increase #1		Revised Costs		Revised PF/Grant	
Construction	\$17,213,000	Construction	\$953,000	Construction	\$18,166,000	Construction	\$12,049,100
Eligible Land	\$0	Eligible Land		Eligible Land	\$0	Eligible Land	\$0
Contingency	\$1,721,300	Contingency	\$0	Contingency	\$1,721,300	Contingency	\$1,204,910
Tech.Ser.	\$752,200	Tech.Ser.		Tech.Ser.	\$752,200	Tech.Ser.	\$526,540
AMP	\$0	AMP		AMP	\$0	AMP	\$0
Misc./	\$0	Misc./		Misc./	\$0	Misc./	\$0
Total =	\$19,686,500	Total #1 =	\$953,000	Total =	\$20,639,500	Total =	\$13,780,550

	PF #1 =	\$0
	Adjusted PF#1	\$0

Cost Increase #2							
Original + Increase #1		Cost Increase #2		Revised Costs		Revised PF/Grant	
Construction	\$0	Construction		Construction	\$0	Construction	\$0
Eligible Land	\$0	Eligible Land		Eligible Land	\$0	Eligible Land	\$0
Contingency	\$0	Contingency	\$0	Contingency	\$0	Contingency	\$0
Tech.Ser.	\$0	Tech.Ser.		Tech.Ser.	\$0	Tech.Ser.	\$0
AMP	\$0	AMP		AMP	\$0	AMP	\$0
Misc./	\$0	Misc./		Misc./	\$0	Misc./	\$0
Total =	\$0	Total #2 =	\$0	Total =	\$0	Total =	\$0

	PF #2 =	\$0
	Adjusted PF#2	\$0

Cost Increase #3							
Original + Increase #1 & #2		Cost Increase #3		Revised Costs		Revised PF/Grant	
Construction	\$0	Construction		Construction	\$0	Construction	\$0
Eligible Land	\$0	Eligible Land		Eligible Land	\$0	Eligible Land	\$0
Contingency	\$0	Contingency	\$0	Contingency	\$0	Contingency	\$0
Tech.Ser.	\$0	Tech.Ser.		Tech.Ser.	\$0	Tech.Ser.	\$0
AMP	\$0	AMP		AMP	\$0	AMP	\$0
Misc./	\$0	Misc./		Misc./	\$0	Misc./	\$0
Total =	\$0	Total #3 =	\$0	Total =	\$0	Total =	\$0

	PF #3 =	\$0
	Adjusted PF #3	\$0

Increase #1 PF Awarded:		Total Construction Cost				
Increase #1 Other Funding:		Type	Other	SRF Loan	SRF PF/Grant	Total
Increase #2 PF Awarded:		Original	\$1,500,000	\$13,733,665	\$4,452,835	\$19,686,500
Increase #2 Other Funding:		Increase #1	\$0	\$953,000	\$0	\$953,000
Increase #3 PF Awarded:		Increase #2	\$0	\$0	\$0	\$0
Increase #3 Other Funding:		Increase #3	\$0	\$0	\$0	\$0
		Total =	\$1,500,000	\$14,686,665	\$4,452,835	\$20,639,500
				Interest Rate		0.64%
				Loan Service Fee		\$382,790

From: [Scott Schultz](#)
To: [Murray, Catherine M.](#); [Chase, Michael](#)
Cc: [Jason Shepler](#)
Subject: City of Green Cove Springs - Harbor Road WRF Expansion, Ph 2 - Centrifuge Information
Date: Tuesday, July 2, 2024 6:34:06 AM
Attachments: [12366 - Cove Springs CS21-4HC Trailer Rev2.061824.pdf](#)
[RE City of Green Cove Springs CS21-4HC 2PH Skid.msg](#)

EXTERNAL MESSAGE

This email originated outside of DEP. Please use caution when opening attachments, clicking links, or responding to this email.

Good morning:

Attached is a quote for the centrifuge we spoke about adding to the current loan during our project update. I know some internal discussion was taking place amongst your team. There are a couple of items that were recommended to be added. I have included the representatives e-mail as additional information.

Thanks in advance for your consideration.

Scott

From: zrm@ees-fl.com
To: [Scott Schultz](#)
Subject: RE: City of Green Cove Springs CS21-4HC 2PH Skid
Date: Wednesday, June 19, 2024 11:06:30 AM
Attachments: [12366 - Cove Springs CS21-4HC Trailer Rev2 061824.pdf](#)

CAUTION: This email originated from outside of the organization. . Do not click links or open attachments unless you recognize the sender and know the content is safe.

Scott,

Good morning, I have attached the revised budgetary proposal from Centrisys for your review. The pricing and lead times shown are budgetary in nature and I can work to firm up pricing and improve on lead times once you are ready for us to do so. I also noticed the budgetary proposals we have provided thus far did not call out a grinder pump and in Florida I recommend having a grinder pump upstream of the sludge feed pump to protect the centrifuge from rags and any other debris that could be in the sludge feed. Additionally, I would recommend we require Centrisys to provide a aluminum decked trailer since they last a lot longer and not a wood decked trailer as the wood will rot over time (10+ years). I have sent Centrisys my recommendations for the grinder pump and aluminum decked trailer and will be in touch should there be any price adjustment based on these features.

I have several mobile units in submittal/production phase for other customer and I have seen lead times be improved when a project requires it and I usually can get the price down from the budgetary numbers when its time for firm pricing and at the purchasing stage.

We also have a new regional manager for Centrisys named John Walsh and he is located out of Clearwater. I would like to set up a time to bring John to the site and introduce him to you so if there is a time that works for you in the coming weeks please let me know. I think it would be beneficial for us to get together and go over the scope in detail so everyone is on the same page and our scope is aligned with your expectations.

Thanks again for all your time and consideration, please feel free to reach out at any time if you have any questions or concerns.



Zack Mansker, Sales Engineer https://link.edgepilot.com/s/2bb44ac1/gH_S8K-Hi0CAyALPj4VVSQ?u=http://www.ees-fl.com/
P (863)450-3595x708 *3616 Harden Blvd, #337*
C (863)220-3081 *Lakeland, FL 33803*

NUMBER: 12366 Rev2

DATE: 6/18/24

TO: City of Green Cove Springs
Green Cove Springs, Florida
Attn : Scott Schultz
Ph : (904) 219-7540
Email : sschultz@greencovesprings.com

Proposal
City of Green Cove Springs, Florida
Trailer Mounted CS21-4HC 2PH Skid



Centrisys Contact

John Walsh
Regional Sales Manager
9586 58th Place
Kenosha, WI 53144
Ph: (262) 654-6006
Direct: (262) 220 2475
Email: jwalsh@centrisys.us

Centrisys Representative

Zack Mansker
Environmental Equipment Services
3616 Harden Blvd #337
Lakeland, FL 33803
Direct: (863) 220-3081
Email: zrm@ees-fl.com

Centrisys is pleased to provide this quotation for the following:

ITEM 1. ONE (1) DECANTER CENTRIFUGE SKID MOUNTED UNIT MOUNTED ON TRAILER, MODEL CS21-4HC 2PH COMPLETE WITH AUTOMATIC HYDRAULIC BACKDRIVE

1.A Basis of Design – Sludge Feed Characteristics

Industry Type:	Municipal Wastewater
Number of units:	One (1)
Design Feed Flow rate/Unit:	TBD
Max Hydraulic throughput/Unit:	225 gpm
Dry Solids loading:	TBD
Feed Concentration:	TBD

1.B Centrifuge specification

Model:	CS21-4 HC 2PH
Inside bowl diameter (in):	22
Bowl length (in):	100
Bowl length to diameter ratio:	4.3:1
Beach angle (deg):	15
Maximum Bowl speed (RPM):	3150
Type of lubrication:	Grease
Main Motor HP:	75
Back Drive Motor HP:	15
G-Force (g):	3000

1.C Equipment description

1. Each unit will be provided based on the attached drawing CS21-4HC 2P Centrifuge Skid GA.pdf
2. Each unit consists of
 - A. Centrifuge Assembly with
 - a) Solid bowl - The bowl, consisting of a horizontal cylindrical-conical assembly, shall have a minimum diameter and be supported by spherical roller bearings mounted on pillow blocks.
 - b) Scroll conveyor - A horizontal cylindrical-conical scroll conveyor supported by grease lubricated cylindrical roller bearings and grease lubricated angular contact anti-thrust ball bearings.
 - c) Casing - 316 stainless steel lower casing and one piece upper casing. The cake discharge area is protected by replaceable wear liners.
 - d) Base/frame - Fabricated carbon steel base with 304 stainless steel wetted parts. The base will be mounted on vibration isolators.

3. **Main Drive Motor** with variable frequency drive to run the rotating assembly
 - A. Installed power: 75HP
 - B. Rotation speed: 3550 rpm
 - C. Electrical requirements: 480V/60Hz/3Ph
 - D. Type of protection: TEFC

4. **Hydraulic Back drive/Scroll drive System**
 - A. Hydraulic Motor
 - a) Type: 2071D
 - b) Max Torque: 12,980 Nm
 - B. Hydraulic Pump
 - a) Installed power: 15 HP
 - b) Rotation speed: 1800 rpm
 - c) Electrical requirements: 480V/60Hz/3Ph
 - d) Type of protection: TEFC

5. **Flexible Connectors**

Solid and liquid flexible connectors will be supplied to isolate the centrifuge from rigid piping.

6. **Thickened/Dewatered Sludge and Centrate Chutes/Hoppers**

7. **Control Panel**
 - A. A complete 304SS NEMA 4X enclosure shall be furnished for each centrifuge to include all controls, instrumentation and interlocks necessary for the operation of the centrifuge and ancillary equipment.

 - B. The control panel shall be equipped with the main circuit breaker, variable frequency inverter for the main drive motor, motor starter for the hydraulic drive system, pushbuttons and running lights for main and backdrive motors, ammeters for main drive motor and malfunction indicators. Ethernet communication for monitoring from SCADA and historical trending of key parameters like bearing temperatures, vibration, hydraulic pressure, flow rates etc., are included. Also includes Allen-Bradley PLC and valve amplifier for the back drive system.

 - C. The control panel shall also be equipped with a 10" Allen-Bradley Panel View touchscreen for operator control and system operation. All set points and operating parameters will be accessible from the touchscreen.

 - D. Standard control panel design uses an air/water heat exchanger to regulate internal panel temperature. Alternately, air conditioner, NEMA4X fan/filter, or vortex cooler is available depending on the customer preference and site conditions.

8. **Instrumentation**

- A. One (1) Vibration sensor per unit
- B. One (1) main bearing temperature sensor, type PT100 on each bearing
- C. One (1) each Bowl/Scroll speed sensor/unit
- D. One (1) Hydraulic oil level/temp. sensor/unit
- E. One (1) Hydraulic pressure sensor/unit

9. **Automatic Grease Lubrication System**

- A. One (1) low Grease level sensor per unit

10. **Seals**

- A. Scroll bearings: Mechanical seals
- B. Main bearings & Housing: Labyrinth Seals

11. **Sludge Feed Pump**

One (1) progressive cavity pump/unit with capacity range of 0-225 gpm.

- A. Body: Case iron ASTM A48 class 35
- B. Base: Cast or fabricated steel
- C. Seal: Mechanical
- D. Motor: TEFC 460V, 60 Hz, 3Ø, 10 hp or manufacturers standard as required to deliver the flow rates specified.
- E. Control: Feed pump control from PLC & VFD integrated into centrifuge control panel

12. **Flow Meter**

One (1) Magnetic flow meter/unit.

13. **Polymer Feed System**

One (1) liquid polymer feed system/unit

- (i) Control of polymer system shall be through the Centrifuge PLC Control System.

14. **Cake transportation system**

(i) Primary conveyor

The primary conveyor is stationary to the skid and is equipped with a drain to reroute the water during start up and shut down.

(ii) Secondary conveyor

A secondary 12ft. swing cake conveyor is adjustable in height and in range.

15. **Skid Mounted system**

Complete skid mounted unit to include all the above items with piping and wiring, catwalk and handrails.

16. **15 Ton Trailer**

One (1) Flatbed trailer, 8'6" wide 30' long

Dual wheel tandem axle suspension assembly

Equipped with manual leveling jacks

ADDER: (4) hydraulic stabilizing jacks with the 12 Volt pump system installed on trailer

17. Skid Hold Down Assemblies

Hold down assemblies to keep skid secure to trailer

ITEM 2 MATERIAL OF CONSTRUCTION

Bowl:	Duplex stainless steel
Scroll Hub/conveyor:	Duplex stainless steel
Flight face	Half Tiled - TC tiles from the feed chamber to solids discharge.
Flights	316 SS
Casing	316 SS
Base/Frame:	Powder coated carbon steel
Fasteners:	304 SS
Skid	Powder coated carbon steel

ITEM 3 SERVICES

3.A Drawings and Installation, Operation and Maintenance (IO&M) Manuals:

1. Submittal Drawings: One (1) electronic copy included; prints by request
2. Final Drawings: Two (2) prints & One (1) electronic copy included
3. O&M Manuals: Two (2) prints & One (1) electronic copy included

3.B Start-Up Assistance:

Centrisys will furnish one factory representative for 5 days or 40 hours (whichever occurs first) during 1 trip to assist in installation inspection, start-up supervision, and operator training. Dates of service to be scheduled upon Buyer's written request.

PURCHASE PRICE:

All of the above for **\$914,000** USD

F.O.B. Job Site, freight included, taxes excluded.

ADDER: NOT INCLUDED IN PURCHASE PRICE OR SCOPE

Four (4) Hydraulic stabilizing jacks with 12v pump system**\$10,500** USD

PAYMENT TERMS:

30% with order; 60% upon shipment; 10% after startup not to exceed 90 days after shipment.

Lead Time: 45-50 weeks following receipt of the Approval drawings

ITEM 4 WARRANTY

One (1) year from the equipment start up or eighteen (18) months from delivery.

BUYER/OWNER RESPONSIBILITY:

- Polymer totes
- Building and building plans (Centrisys provides only the layout drawings without any responsibility of updating any plans or building)
- Building modifications
- Structural and Civil engineering labor
- All utilities that are required for operation
- Unloading, uncrating, installation and installation supervision. Installation will, at minimum, require a forklift and possibly a crane/hoist.
- Readiness of the Equipment before requesting start-up service. Non-readiness may incur additional charges.
- Compatibility of Equipment materials of construction with process environment.
- Piping connections, platforms, gratings and railings unless stated otherwise.
- Any other auxiliary equipment or service not detailed above.

Issued by

Brett Bevers
Applications Engineer

Date: 6/18/24