TOWN OF DISCOVERY BAY

A COMMUNITY SERVICES DISTRICT

SDLF Platinum-Level of Governance

PLATINUM LEVEL

President – Kevin Graves • Vice-President – Ashley Porter • Director – Bryon Gutow • Director – Michael Callahan • Director – Carolyn Graham

NOTICE OF THE REGULAR MEETING
OF THE WATER AND WASTEWATER COMMITTEE
OF THE TOWN OF DISCOVERY BAY
Wednesday August 3, 2022, 5:30 P.M.

NOTICE
Coronavirus COVID-19

In response to the current proclaimed State of Emergency, indoor masking requirements, and recommended measures to promote social distancing imposed by State and local officials, the Town of Discovery Bay Community Services District Board of Directors will take all actions necessary to carry out the intent and purpose of AB 361, including, ensuring that the Directors and meeting attendees may continue to have the option to access and participate in this public meeting by teleconference to avoid imminent risks to the health or safety of the Directors and meeting attendees.

To accommodate the public during this period of time, the Town of Discovery Bay Community Services District Board of Directors has arranged for members of the public to observe and address the meeting telephonically or in person.

TO ATTEND IN PERSON: The meeting will be held at the Community Center located at 1601 Discovery Bay Boulevard.

TO ATTEND BY WEBINAR:
Please register for the Water and Wastewater Committee Meeting by: (Copy *and paste into your browser the registration URL. You will then be directed to download the webinar to your device and register with LogMeln, Inc.)*

Registration URL: **https://attendee.gotowebinar.com/register/5687632237909491979**
Webinar ID# 215-632-771

After registering, you will receive a confirmation email containing information about joining the webinar by computer or by phone.

For listen only mode dial: +1 (631) 992-3221 ID# 250-190-017

Download Agenda Packet and Materials at **http://www.todb.ca.gov/**

Water and Wastewater Committee Board Members
Chair Kevin Graves
Vice-Chair Ashely Porter

A. ROLL CALL
1. Call business meeting to order 5:30 p.m.
2. Roll Call.

B. PUBLIC COMMENTS (Individual Public Comments will be limited to a 3-minute time limit)
During Public Comments, the public may address the Committee on any issue within the District's jurisdiction which is not on the Agenda. The public may comment on any item on the Agenda at the time the item is before the Committee for consideration. Any person wishing to speak will have 3 minutes to make their comment. There will be no dialog between the Committee and the commenter as the law strictly limits the ability of Committee members to discuss matters not on the agenda. We ask that you refrain from personal attacks during comment, and that you address all comments to the Committee only. Any clarifying questions

from the Committee must go through the Chair. Comments from the public do not necessarily reflect the viewpoint of the Committee Members.

C. DRAFT MINUTES TO BE APPROVED

1. Approve Water and Wastewater DRAFT Meeting minutes from July 6, 2022.

D. PRESENTATIONS

1. Water CIP and Financial Planning for Project Implementation.

E. UPDATES

F. DISCUSSION ITEMS

1. Discussion and Possible Feedback on Pump Station W Options for Repair.

G. FUTURE AGENDA ITEMS

H. ADJOURNMENT

1. Adjourn to the next Standing Water and Wastewater Committee meeting on September 7, 2022, at the Community Center located at 1601 Discovery Bay Boulevard.

“This agenda shall be made available upon request in alternative formats to persons with a disability, as required by the American with Disabilities Act of 1990 (42 U.S.C. § 12132) and the Ralph M. Brown Act (California Government Code § 54954.2). Persons requesting a disability related modification or accommodation in order to participate in the meeting should contact the Town of Discovery Bay, at (925) 634-1131, during regular business hours, at least forty-eight hours prior to the time of the meeting.”

"Materials related to an item on the Agenda submitted to the Town of Discovery Bay after distribution of the agenda packet are available for public inspection in the District Office located at 1800 Willow Lake Road during normal business hours."

NOTICE OF THE REGULAR MEETING
MINUTES OF THE WATER AND WASTEWATER COMMITTEE
OF THE TOWN OF DISCOVERY BAY
Wednesday July 6, 2022

Water and Wastewater Committee Board Members
Chair Kevin Graves
Vice-Chair Ashely Porter

A. ROLL CALL

1. Call business meeting to order 5:30 p.m.
2. Roll Call – all members were present.

B. PUBLIC COMMENTS (Individual Public Comments will be limited to a 3-minute time limit)

None.

C. DRAFT MINUTES TO BE APPROVED

1. Approve Water and Wastewater DRAFT Meeting minutes from June 1, 2022.

Vice-Chair Porter made a Motion to Approve the Draft Minutes.
Chair Graves second.
Vote: Motion Carried – AYES: 2, NOES: 0, ABSTAINED: 0, ABSENT: 0

D. PRESENTATIONS

1. None.

E. UPDATES

1. Well 8 CEQA Update.
   Update provided by Wastewater Engineer, Mike Yeraka.
   - Staff with legal counsel approval is recommending an amendment to existing EIR, not a mitigated negative declaration as previously discussed.

F. DISCUSSION ITEMS

1. Discussion and receive input on Change Order No. 2 for BSK Geotechnical Services for the Denitrification and Master Plan Upgrades Project in the amount of $75, 035.
   Discussion led by Wastewater Engineer, Gregory Harris.
   - Staff is requesting Committee to approve extension of $75K on base contract and allow General Manager Dina Breitstein to approve 10% of the contract amount.
   - Committee is recommending Staff's request to present to Board for approval.

2. Discussion and Provide Feedback on Pump Station W Repair Options.
   Discussion led by Wastewater Engineer, Gregory Harris.
   - Option 2 – Use existing contractor onsite with change order to existing contract with modification of portable jib crane.
   - Finance Manager, Julie Carter will work on financing for Finance Committee to review.

3. Discussion Regarding LSCE Proposal: Scope and Budget for Water CIP Development and Funding Assistance.
   Discussion led by General Manager, Dina Breitstein.
   - Luhdorff & Scalmanini Consulting Engineers - to assist with funding opportunities for all Water and Wastewater projects.

G. FUTURE AGENDA ITEMS

H. ADJOURNMENT

1. Meeting adjourned at 6:30 p.m. to the next Standing Water and Wastewater Committee meeting on August 3, 2022, at the Community Center located at 1601 Discovery Bay Boulevard.

“This agenda shall be made available upon request in alternative formats to persons with a disability, as required by the American with Disabilities Act of 1990 (42 U.S.C. § 12132) and the Ralph M. Brown Act (California Government Code § 54954.2). Persons requesting a disability related modification or accommodation in order to participate in the meeting should contact the Town of Discovery Bay, at (925) 634-1131, during regular business hours, at least forty-eight hours prior to the time of the meeting.”

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CIP and Financial Planning For Project Implementation

Town of Discovery Bay

CIP Project Implementation Funding Meeting

Board Committees

<u>August 3, 2022</u>

Dina Breitstein, General Manager

Jason Coleman and Jacques DeBra, LSCE

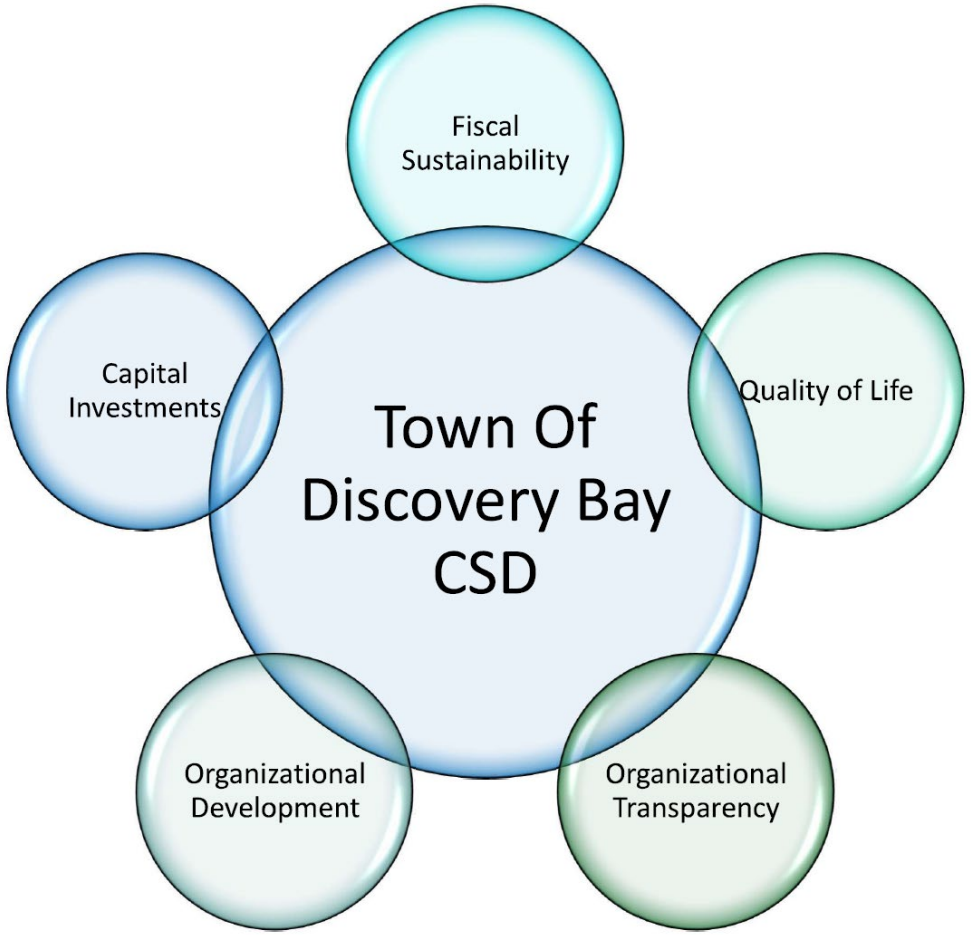
Luhdorff & Scalmanini
Consulting Engineers

Meeting Discussion

1. Introductions
2. TODB – Meeting Priorities
3. CIP Planning/Implementation
4. Long Term Funding Options
   - Financing Sources
   - Grant Funding Sources
5. 2022 Funding Opportunities
6. Next Steps

TODB FY21-22 Budget – Strategic Goals

Strategic Goals



Key Achievements

- ✓ Timely completion of annual audits with unqualified (clean) audit findings
- ✓ Structurally balanced budget
- ✓ Sufficient Reserves

Goals

- ➢ Ensure expenditures are consistent with adopted policies
- ➢ Move towards paperless documentation. Continue implementation and updating technologies to increase efficiencies to ensure accurate reporting
- ➢ Move Town treasury services from Contra Costa County
- ➢ Develop and execute financing plan for upcoming Water and Wastewater Projects ✓

Long term funding needs based on Water and Wastewater CIP Plan priorities and infrastructure risk factors.

CIP Planning – Assessing Infrastructure Risk

WHAT IS THE CURRENT STATE OF MY ASSETS?

- What assets do I own?
- Where are they?
- What condition are they in?
- What are their remaining useful lives?
- What is their remaining economic value?

WHAT IS MY REQUIRED LEVEL OF SERVICE?

- What is the demand for my services by my stakeholders?
- What do regulators require?
- What is my actual performance?

WHAT ARE MY BUSINESS RISKS?

- How do assets fail? How can they fail?
- What is their likelihood of failure?
- What are their consequences of failure?
- What assets are critical to sustained performance?

WHAT ARE MY BEST O&M AND CIP INVESTMENT STRATEGIES?

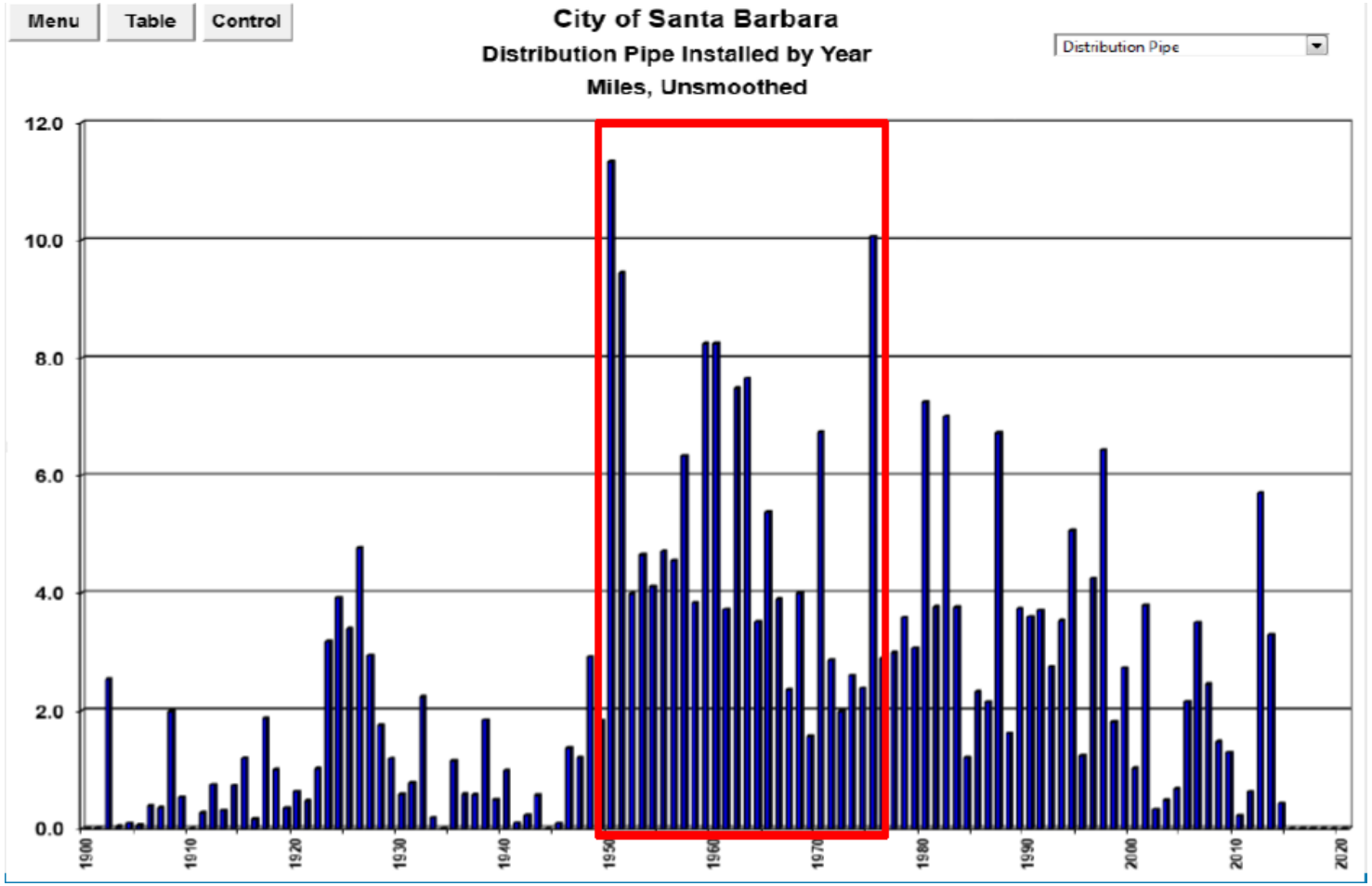
- What alternative management options exist?
- Which are the most feasible for my organization?

WHAT IS MY BEST LONG-TERM FUNDING STRATEGY?

ASSET MANAGEMENT ENABLERS:

- LEADERSHIP
- ORGANIZATIONAL ALIGNMENT
- KNOWLEDGE MANAGEMENT
- TECHNOLOGY
- TRAINING

CIP Planning – Assessing Infrastructure Risk



City of Santa Barbara Example:
Large % of water mains installed between 1950 and 1976, adding to pre-1950 main replacement backlog over upcoming 20-year planning period.

TODB FY21-22 Budget – CIP Budget

Capital Improvement Details

Account Code	Capital Improvements	Actual FY 2019-2020	Budgeted FY 2020-2021	Actual YTD FY 2020-2021	Budgeted FY 2021-2022	Budgeted FY 2022-2023
20-1156	CIP for Water Supply Capacity (Source, Treatment and Storage)		750,000		1,248,000	2,480,000
20-1170	Upgrades and Maintenance for Existing Water Supply Facilities		350,000		755,500	330,000
20-1170	Water Distribution System/Pipeline Replacements		1,440,000		750,000	750,000
20-1170	Additional Capital Improvements - Water Distribution System & Maintenance		25,000			
20-1170	Master Plans		315,000		50,000	
20-1135/20-1120	Water/WW Combined Project Total (trucks, building repairs, equipment)		296,000		384,000	1,064,000
	Total	**$175,435**	**$3,176,000**	**$443,512**	**$3,187,500**	**$4,624,000**

In fiscal year 2021/2022, the District will begin the Capital Improvement Projects which include:

- the design and site acquisition for Well #8
- begin long-term mainline pipeline replacement program
- Filter repair at Newport & Willow Treatment Plants
- cathodic protection

TODB FY21-22 Budget – 20 Year Water CIP Plan

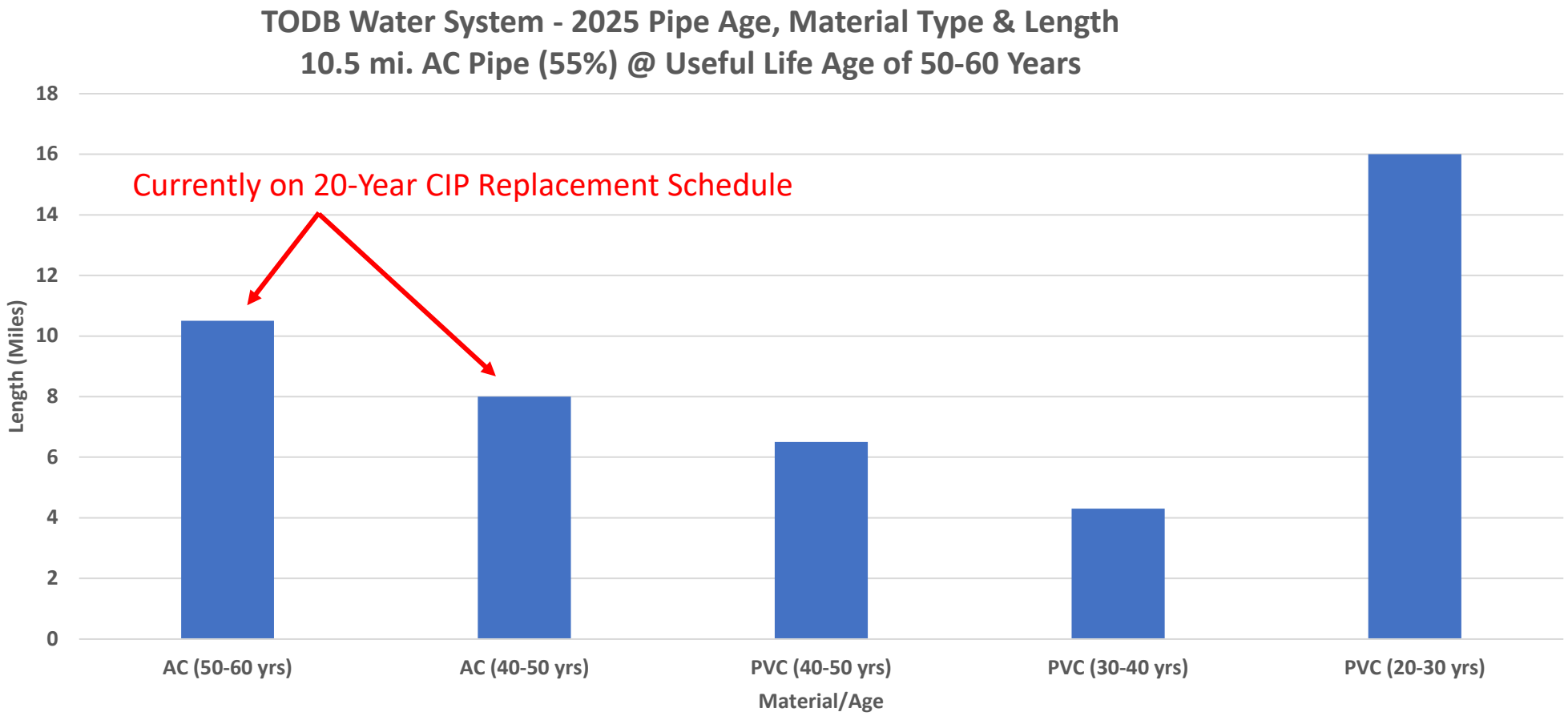
Table 1. Summary of Preliminary 20-year Capital Improvement Plan

CIP # Ref	Project Name	Total Cost	0-5 years 21/22 - 25/26	5-10 years 26/27 - 30/31	10-20 years 31/32 - 40/41
	Water Supply Wells				
6001	Well 8 (New) - well and standalone treatment plant	$4,800,000	$4,800,000	$0	$0
6001	Well 5A (Abandon) - destroy well and decommission site	$200,000	$200,000	$0	$0
	Well 1B (Replace) - New well onsite, major upgrades, re-use pump	$2,250,000	$0	$2,250,000	$0
	Well 2 (Upgrade) - Replace electrical panel and motor	$150,000	$150,000	$0	$0
	Well 6 (Rehab and Upgrade) - THM corrections	$250,000	$250,000	$0	$0
	Well 4A (Rehab) - every 5 years until replacement	$450,000	$150,000	$150,000	$150,000
	Well 4A (Replace) - New well onsite, minor upgrades, re-use pump	$1,500,000	$0	$0	$1,500,000
	Well 7 (Rehab and Upgrade) - Rehab and replace components	$300,000	$0	$0	$300,000
	Well Site Replacement (Contingency) - most likely Well 2	$3,000,000	$0	$0	$3,000,000
	Sub-Total	$12,900,000	$5,550,000	$2,400,000	$4,950,000
	Willow Lake Water Treatment Plant				
6007	Filters A, B, C (Rehab) - repair vessel and coating	$375,000	$375,000	$0	$0
	Filters A, B, C (Rehab) - replace media every 10 years	$600,000	$300,000	$0	$300,000
	Filters A, B (Replacement) - after service life	$800,000	$0	$0	$800,000
6006	Storage Tanks A, B, C - inspect and clean every 5 years	$200,000	$50,000	$50,000	$100,000
	Booster Pump, Jockey Pump, Reclaim Pump (Replacement)	$320,000	$280,000	$40,000	$0
	VFDs for 4x Booster Pumps	$300,000	$300,000	$0	$0
	Electrical Switchgear Upgrade	$200,000	$0	$0	$200,000
	SCADA Upgrade	$150,000	$0	$150,000	$0
6017	Chemical System Upgrade	$100,000	$50,000	$0	$50,000
	Diesel Generator Replacement	$400,000	$0	$0	$400,000
	Station Pipe Repair - pipe, valves, instrumentation	$100,000	$0	$50,000	$50,000
6008	Site Upgrade - automatic gate taller fence (0-5yr), paving(10-20 yr)	$350,000	$100,000	$0	$250,000
	Building Repairs - roofing and painting	$50,000	$0	$0	$50,000
	Sub-Total	$3,945,000	$1,455,000	$290,000	$2,200,000
	Newport Drive Water Treatment Plant				
6007	Filters A, B (Rehab) - repair vessel and coating	$150,000	$150,000	$0	$0
	Filters A, B (Rehab) - replace media every 10 years	$375,000	$125,000	$125,000	$125,000
	Filters A, B (Replacement) - after service life	$1,000,000	$0	$0	$1,000,000
6006	Storage Tank Inspection and Cleaning	$200,000	$50,000	$50,000	$100,000
	Booster Pump, Jockey Pump, Reclaim Pump (Replacement)	$400,000	$200,000	$80,000	$120,000
	VFDs for 4x Booster Pumps	$300,000	$225,000	$75,000	$0
	Electrical Switchgear Upgrade	$200,000	$0	$0	$200,000
	SCADA Upgrade	$150,000	$0	$0	$150,000
6017	Chemical System Upgrade	$100,000	$50,000	$0	$50,000
	Diesel Generator Replacement	$400,000	$0	$0	$400,000
	Station Pipe Repair - pipe, valves, instrumentation	$100,000	$0	$50,000	$50,000
6008	Site Upgrade - automatic gate (0-5yr), paving(10-20 yr)	$275,000	$25,000	$0	$250,000
	Building Repairs - roofing and painting	$120,000	$0	$0	$120,000
	Sub-Total	$3,770,000	$825,000	$380,000	$2,565,000
	Water Distribution System				
6010	Mainline Replacement - 13 miles AC pipe older than 40 years	$13,000,000	$2,000,000	$3,000,000	$8,000,000
	Underwater Crossings (11 total) - replace with HDD	$4,000,000	$1,200,000	$800,000	$2,000,000
6011	Cathodic Protection Systems	$250,000	$250,000	$0	$0
	Sub-Total	$17,250,000	$3,450,000	$3,800,000	$10,000,000
	Total 20-Year CIP Budget	$37,865,000	$11,280,000	$6,870,000	$19,715,000

Updated 20-Year Water CIP Plan included in 2022 budget discussions is a good starting point to determine long term funding needs.

The TODB needs to develop a water and sewer CIP funding strategy to address aging infrastructure and asset management risk.

TODB FY21-22 Budget – 20 Year Water CIP Plan



TODB FY21-22 Budget – 20 Year Water CIP Plan

	Water Distribution System		0-5 Yrs.	5-10 Yrs.	10-20 Yrs.
6010	Mainline Replacement - 13 miles AC pipe older than 40 years	$13,000,000	$2,000,000	$3,000,000	$8,000,000
	Underwater Crossings (11 total) - replace with HDD	$4,000,000	$1,200,000	$800,000	$2,000,000
6011	Cathodic Protection Systems	$250,000	$250,000	$0	$0

AC Pipe Useful Life = 50-60 years; subject to high leak losses and failures as it ages.

Overall, studies have shown that the failure rate for AC pipe increases dramatically with age. After 50 years of use, AC pipe failure rates are at least about one per year per mile of pipe.

TODB FY21-22 Budget – 20 Year Water CIP Plan

Key Factors Affecting Rate of AC Pipe Failure

Age

Overall, however, studies have shown that the failure rate for AC pipe increases dramatically with age. After 50 years of use, AC pipe failure rates are about one per year per mile of pipe.

Diameter

Smaller pipes are more susceptible to failure. Majority of TODB AC pipes are smaller size (under 10 inch)

Failure History

If an AC pipe has failed previously it is more likely to fail again.

Pressure

The higher the pressure (static or transient) the greater the risk of failure.

Soils

Pipes installed in free draining soils are less susceptible to failure. Pipes in reactive clays are more susceptible.

Manufacturing Standard

Pipes manufactured between 1960 and 1978 are less susceptible to failure, all things being equal.

Land Cover

Pipes in the road are more susceptible to failure than pipes in the verge.

Water Quality Risk

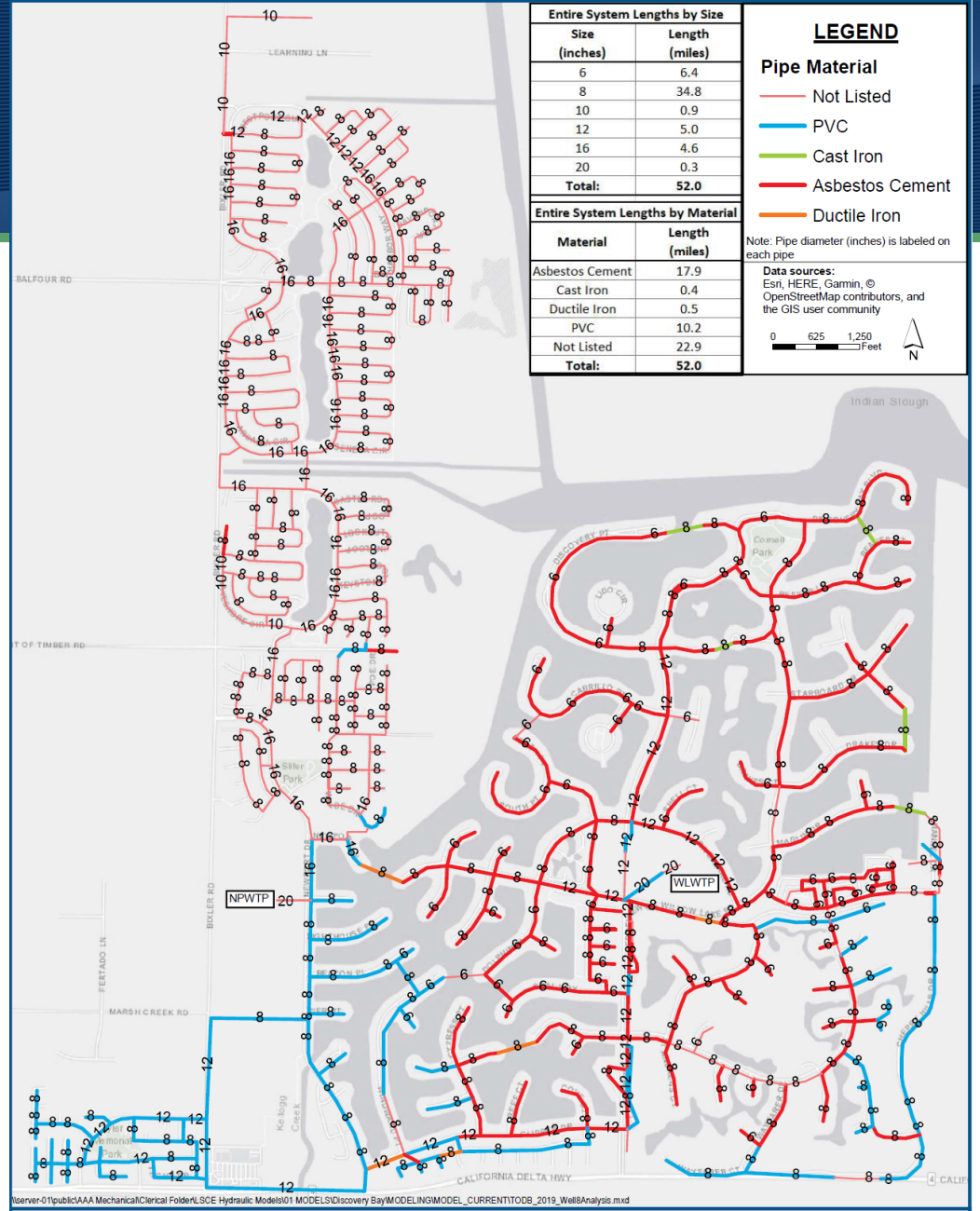
Under the Safe Drinking Water Act, asbestos is limited to **7 million fibers per liter (MFL) of water**. There are several notable cases of AC pipe failure and potential health issues from detection of high levels of asbestos in the drinking water.

TODB FY21-22 Budget – 20 Year Water CIP Plan

AC Pipe Risk Factors	20-Year Replacement Project Approach	DWSRF Large Project Approach
Age (> 50 years old)	+++	++
Diameter (less than 10 inch)	+++	++
Failure History (examples)	+++	+
Pressure (45-60 psi)	++	++
Soils (Reactive clays, high water)	+++	++
Manufacturing Standard	++	+
Land Cover (3 ft. standard cover)	++	++
Water Quality Risk - SDWA	+++	+
Street/Right-of-Way Alignments	+++	+

+ = low risk; ++ = medium risk; +++ = high risk for AC infrastructure failure/replacement need.

20 Year Water CIP Plan



Luhdorff & Scalmanini Consulting Engineers

System Pipe Material — **Figure 2**

Discovery Bay Community Services District
Source: Water Model Dataset

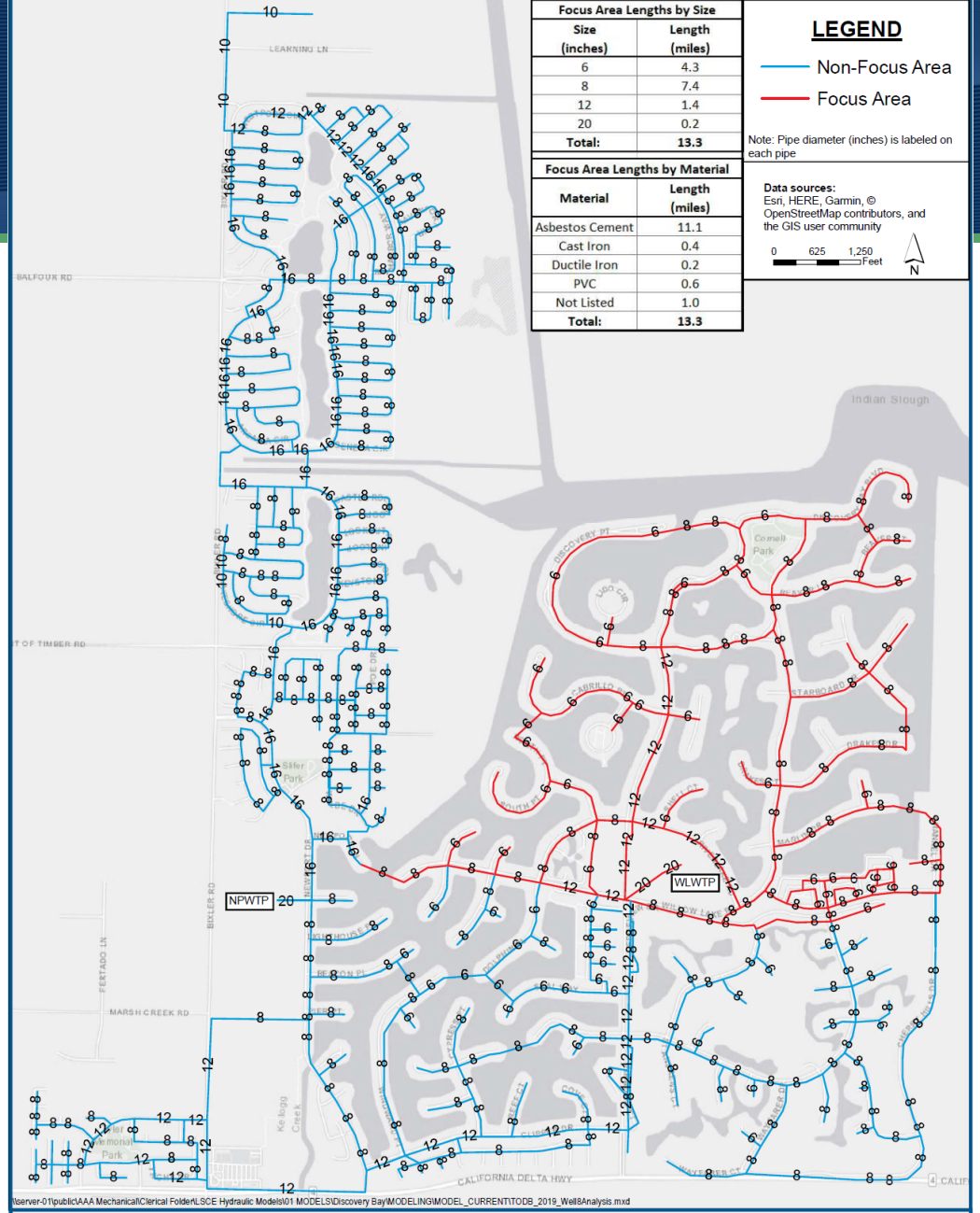
AC Pipe In Red

13.3 miles to be replaced through DWSRF funding approach. AC Pipe Useful Life = 50-60 years; subject to high leak losses and failures as it ages.

AC Pipe Corrosion Study Conclusions

For AC pipe, the main concern is that the soil is predominantly alluvial soils that can have high swelling and shrinkage characteristics. There is also a very high water table in the TODB that can leach the calcium out of the pipe.

20 Year Water CIP Plan



Luhdorff & Scalmanini Consulting Engineers

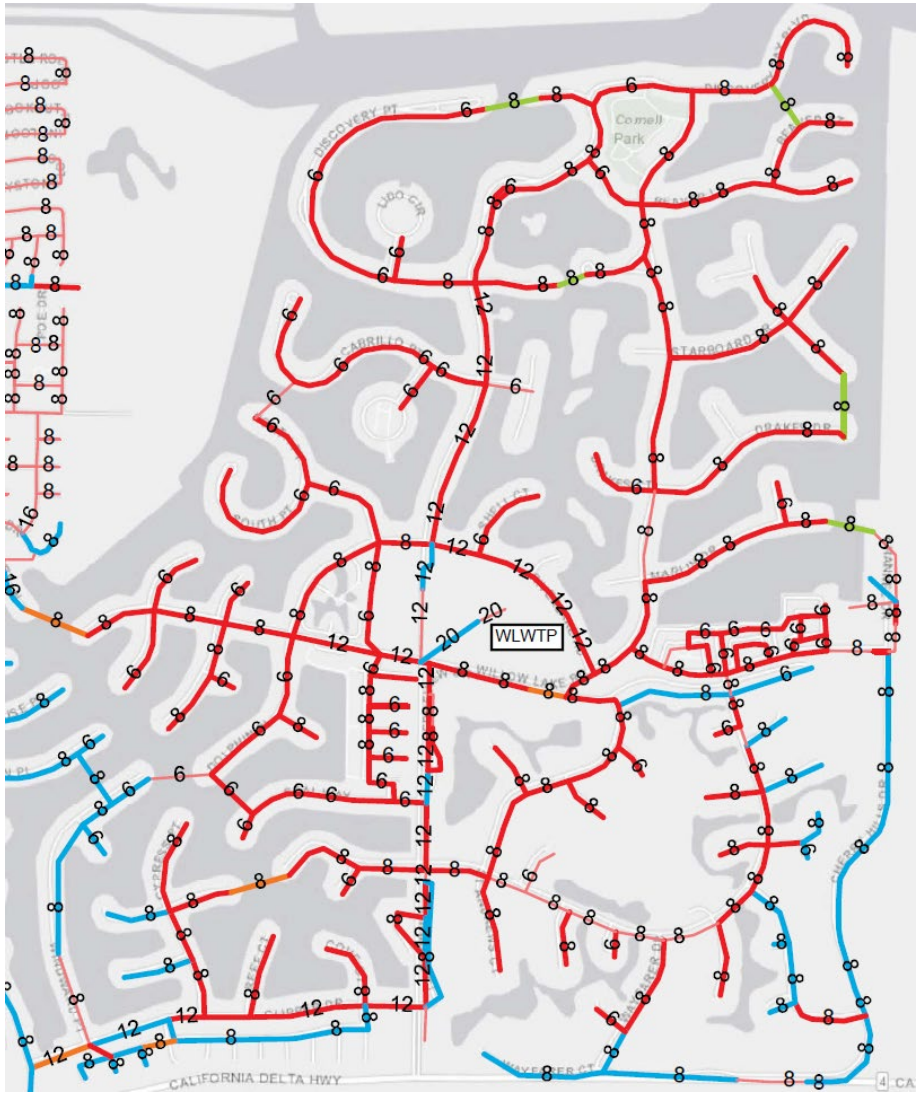
Preliminary Pipe Focus Area (Per Veolia) — **Figure 3**

Discovery Bay Community Services District
Source: Water Model Dataset

TODB Water CIP Plan

AC pipe replacement focus area with 13.3 miles of AC pipe prioritized for replacement over the next five years. Useful life will be influenced by corrosive soils and calcium leaching from high water table (Corrosion Study, 2022).

TODB FY21-22 Budget – 20 Year Water CIP Plan



TODB Water CIP Plan

AC pipe replacement focus area with 13.3 miles of AC pipe prioritized for replacement over the next five years.

Replacement pipe material will be C-900 plastic pipe with new alignment in street or adjacent right-of-way (off private property).

Old AC pipe will be abandoned in place.

TODB Water CIP Implementation: 2022-2032

Water CIP Priorities	Existing Facilities	5-10 Year CIP Risk Target	Funding Need
Water Distribution Pipeline Replacement Project (up to $20M)	50 miles mainline piping 6 to 20-inch	13-18 miles AC Pipe 11 Underwater crossings Prioritize (age, defects, etc.)	New funding source required – DWSRF recommended
GW Treatment Upgrade Project – Phase 1 ($1.2M)	Willow WTP Upgrade	Filtration/backwash system	New funding source required – fund from FY22-23 budget
Replace Well 1B ($2.5M)	Existing Well – 1,800 to 1,300 gpm production, capacity in decline	Replacement Well Race against production capacity decline	New funding source required
New Well 8 ($4.8M)	New facility	1,800 gpm with Wellhead Treatment Plant	Funded by existing bond issuance

TODB FY21-22 Budget – 20 Year Water CIP Plan

What Is The Most Cost Effective Approach For Water Distribution R&R CIP Implementation?

CIP Cost Factors	20 Year Implementation Bi-Annual Contracts	DWSRF Funded Approach Larger Scale Project
Contract bidding	10 contracts	1 contract
Project planning	10 cycles	1 cycle
Project design	10 design packages	1 design package
Project Admin./Legal Costs	For 10 contracts	1 contract
Contractor Scale	10 smaller contracts	1 large contract
Financing Cost Savings	Bond Market Rates	SRF Rates
Deferred Debt Service Payments	Begin before work begins	Begin one-year after construction
Inflation	More cost inflation impact	Capture current costs/$
Infrastructure Risk	Higher O&M Costs More pipeline breaks/leaks	Lower O&M Costs Lower failure risk
Overall Estimated Cost Savings		25 to 35%

Common Utility – Long Term Funding Strategy

The long-term utility funding strategy will be unique for each utility and be a function of system needs, infrastructure risk, and market timing.

Existing TODB $10M bond issuance to cover some water and sewer CIP projects.

Current Grant Funding Opportunities

- SWRCB County Drought Funding Program
- DWR SGMA Implementation Round 2 Grant Funding Program
- DWR IRWM Implementation Round 2 Grant Funding Program
- Various EPA Grants – smaller scale
- Cost Sharing and other arrangements to keep costs low

County Drought Funding Program

- The State Water Board has opened a **County-wide and Regional Funding Solicitation** for counties or eligible partner entities to receive funding to implement regional programs that address drought-related and/or contamination issues for **state small water systems (state smalls) and domestic wells** serving disadvantaged communities (DACs) and low-income households.
- Counties or eligible partner entities that receive funding will be responsible for managing and implementing the program. The State will reimburse the counties or partner entities for eligible costs incurred related to the implementation and management of these programs.
- Available Through SWRCB
  - Emergency water supplies
  - Domestic well repair and replacement and consolidations
  - Likely not a long-term funding source
- Best To Pursue in 2022, funds are limited.

County Drought Funding Program - Criteria

- Eligible project types include:
- Assessment
  - Community outreach
  - Domestic well testing
- Interim Solutions
  - Bottled Water
  - Tanks and hauled water
  - Kiosk filling stations
  - Point of Use/Point of Entry (POU/POE) installation and maintenance
- Long-Term Solutions
  - Well repairs and/or replacements
  - Limited-scale consolidation (such as laterals, above ground interties)
  - POU/POE installation and maintenance, in some cases

DWR SGMA Implementation Round 2 Funding Program

- **DWR SGMA Implementation – Round 2 Grant Funding Cycle**

Grant funding available:	$230M/competitive
Application Period:	Fall 2022
Purpose:	Assist subbasins to meet GSP sustainability goals.
Basin Priority:	High and Medium priority subbasins
DWR Priorities:	Consistent with GSPs; improves groundwater sustainability.
GSA Priorities:	Offset GSP implementation and SGMA compliance costs.
Cost Share:	Some local cost share may be required.
County/GSA:	Leverage multiple subbasin application submittals.
	Priority Project development funding (e.g. gw recharge)
	One Application per Subbasin

DWR IRWM Implementation Round 2 Funding Program

- **<u>DWR IRWM Implementation – Round 2 Grant Funding Cycle</u>**

Grant funding available:	$193M/competitive
Application Period:	Due August 19, 2022
Purpose:	Assist IRWM Groups Implement IRWMP priorities & goals.
Priority:	IRWM Groups updating/implementing IRWMPs
DWR Priorities:	Consistent with IRWMPs; improves water resource sustainability.
IRWM Priorities:	Offset IRWM Group implementation and compliance costs.
Cost Share:	Some local cost share may be required (50% for non-dac).
IRWM Groups:	Leverage multiple IRWMP application submittals.
	Priority Project development funding (e.g. gw recharge)
	Regional projects score the highest in general

Best Available EPA Grant Funding Program

Department: US Environmental Protection Agency

Midsize and Large Drinking Water System Infrastructure Resilience and Sustainability Program

Program Overview

The purpose of this program is to assist midsize and large drinking water systems with increasing their resilience to natural hazards, cybersecurity vulnerabilities, and extreme weather events.

Program Eligibility

Eligible entities include public water systems that serve a community with a population of 10,000 or more.

Funding Information

This program provides $50 million annually for fiscal years 2022 through 2026. Fifty (50) percent will be used for grants to entities that serve a population between 10,000 and 100,000. The other 50 percent will be used for grants to entities that serve a population greater than 100,000.

Eligible Projects:

- Funds may be used to promote water conservation, enhance water efficiency, create desalination facilities, relocate or renovate existing vulnerable water systems, enhance water supply, and implement measures to increase resiliency to natural hazards, cybersecurity vulnerabilities, or extreme weather events.
- Funds can also be used to form regional water partnerships to collaboratively address documented water shortages.

Eligible Projects:

- Funds may be used to promote water conservation, enhance water efficiency, create desalination facilities, relocate or renovate existing vulnerable water systems, enhance water supply, and implement measures to increase resiliency to natural hazards, cybersecurity vulnerabilities, or extreme weather events.
- Funds can also be used to form regional water partnerships to collaboratively address documented water shortages.

Lowest Cost Financing In Rising Interest Rate Environment

- DWSRF has the cheapest financing available
- WIFIA - #2 (right now)
- California IBank - #3
- Revenue Bonds - #4
- Examples of LSCE Projects – Timing The Market
  - DWSRF Construction Application
    - City of Patterson Meter Replacement Project ($4M)
    - Terms: 20-year/1.2% interest rate
  - CWSRF Construction Application
    - OLSD Sewer R&R CIP Project ($25M)
    - Terms: 30-year/0.9% interest rate

Grant funding more selective since TODB is not classified as a disadvantaged community.

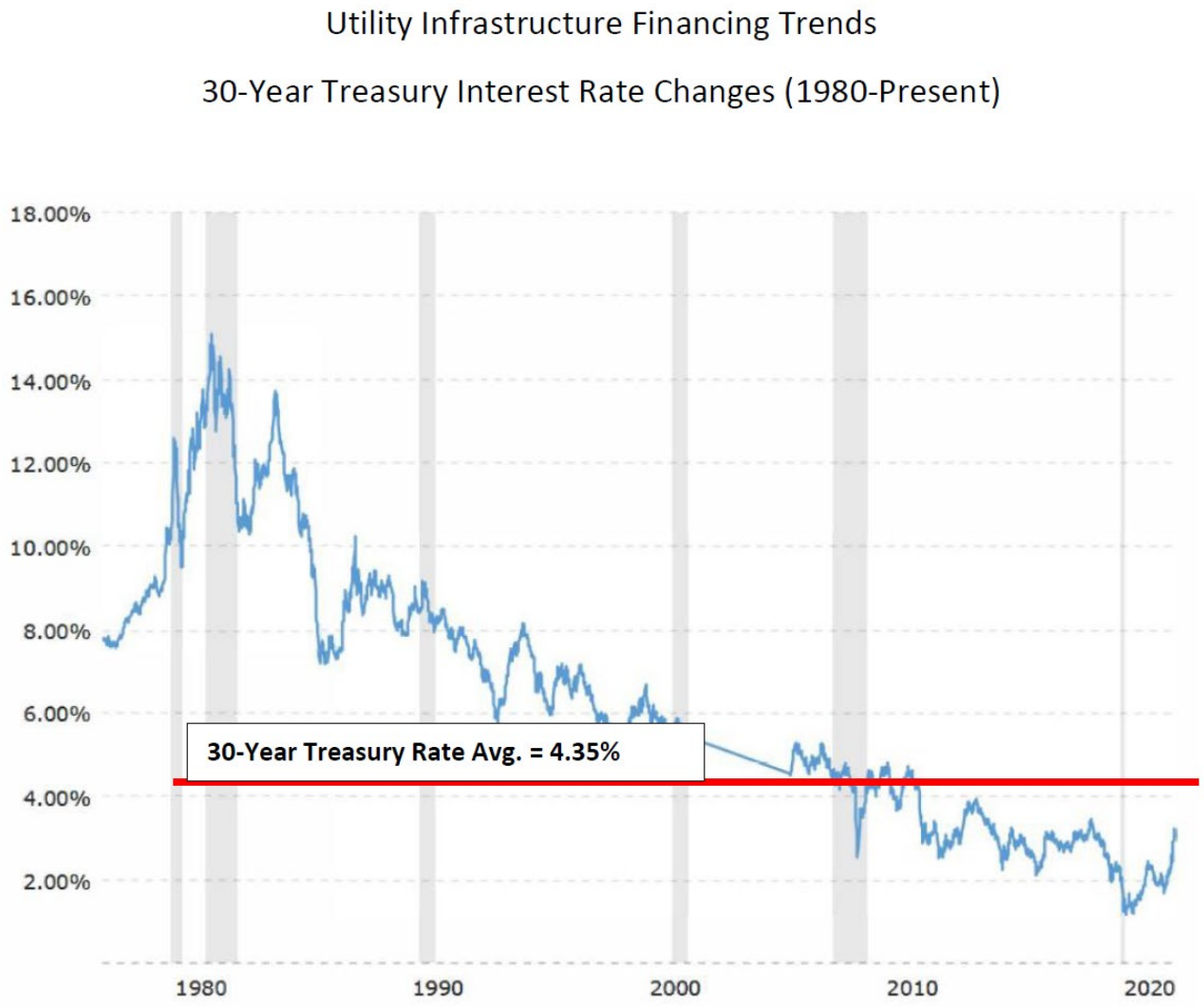
WIFIA Construction Application

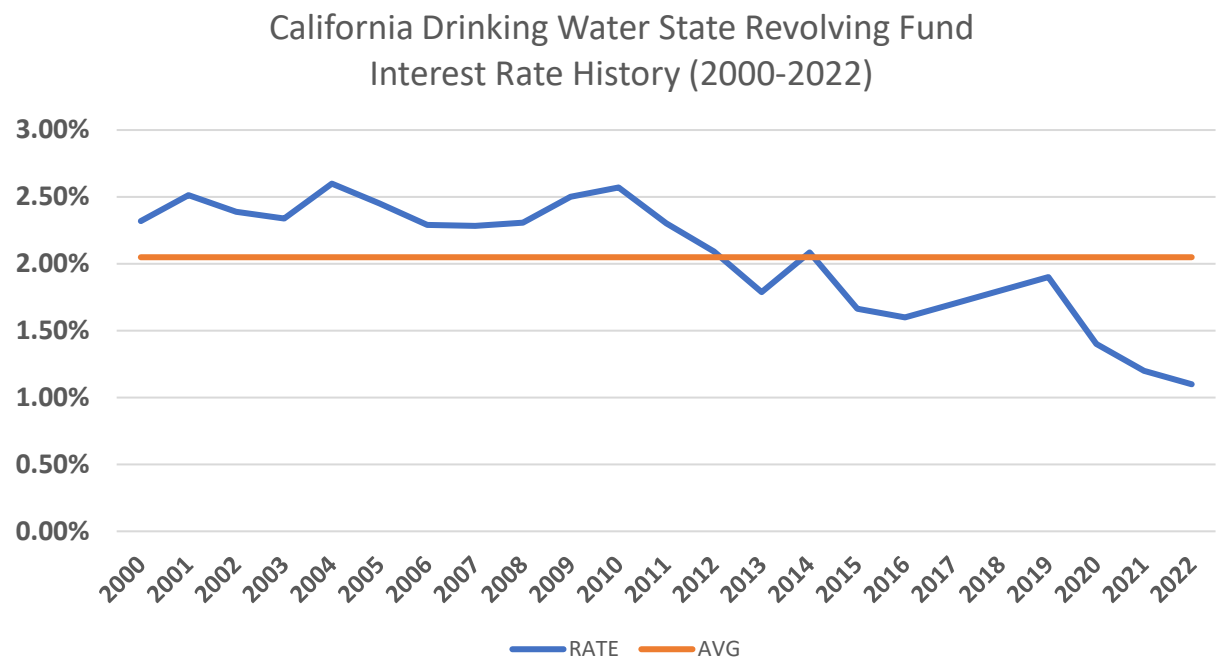
- OLSD Sewer R&R CIP Project ($24.5M)
- Terms: 35-year/1.8% interest rate

Lowest Cost Financing In Rising Interest Rate Environment

- DWSRF has the cheapest financing available (still)
  - Construction Application can fund 100% of project costs (planning/design/construction/administration)
  - 30-Year Term Financing/full loan payments begin 1 year after construction
  - 3-Year Construction Period from Loan Agreement Execution
- Structure Applications based on DWSRF funding criteria and priority
- Takes 18-24 months from Application submittal to Funding Agreement execution
- Categorically Exempt projects a big plus (R&R) – CEQA Plus Required
- DWSRF will provide the TODB with the most CIP budget flexibility

Lowest Cost Financing In Rising Interest Rate Environment





DWSRF adjusts annual interest rate each January.
Typically 50% of State bond rate.

DWSRF Approach – Implementation Timeline

Town of Discovery Bay – DWSRF Funding Program

Water Distribution System Pipeline Rehabilitation and Replacement Project

PROJECT IMPLEMENTATION SCHEDULE - With DWSRF Funding

Water CIP Task (DWSRF Funding)	CY2022				CY2023				CY2024 - 1st Year Construction				CY2025 - 2nd Year Construction				CY2026 - 3rd Year Construction			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
TCDB Water CIP Planning																				
TCDB Budget Approval - w/CIP Plan																				
Project Design/CEQA Approval																				
DWSRF Construction Application				Submittal																
DWSRF Funding Approval Process								Agr. Execution												
Construction - Bid/Award																				
Construction																				
Construction Management																				
Ongoing Start-up & Testing																				
Project Closeout																				x
DWSRF Reimbursement Processing									x	x	x	x	x	x	x	x	x	x	x	x
DWSRF Reporting/Updates									x	x	x	x	x	x	x	x	x	x	x	x
Project Budget Allocation-$13.3M																				

DWSRF Project Budget $13.3M - Includes planning, design and construction costs and assumes some economies of scale for larger project scale.

DWSRF will reimburse for 100% of TCDB Project costs (including planning, design and construction costs).

LSCE would prepare 100% design documents to expedite DWSRF Construction Application review and approval process; 90% design documents required for funding approval.

Project budget assumes that Project is exempt from CEQA due to the fact that the project will replace existing facilities with the same purpose, function and capacity.

DWSRF Approach – Implementation Budget

TODB Water Distribution System Pipeline Rehab & Replacement Project DWSRF General Package - Estimated Final Project Capital Costs & Funding Summary					
Cost Classification	Total Project Costs	Other Financing	Requested Financing	Comments	Avg. 20-Year CIP Approach
A. Facilities Planning-w/funding	$97,500	$0	$97,500	DWSRF Appl/CEQA	$139,286
B. Facilities Design-100%	$585,000	$0	$585,000	Efficient Design	$835,714
C. Construction-AC Pipe/undercrossings	$15,697,500	$0	$15,697,500	1 Large CIP Project	$22,425,000
C. Construction Management	$975,000	$0	$975,000	Streamlined CM	$1,392,857
D. Value Engineering	$0	$0	$0		$0
E. Administration-funding/reporting	$195,000	$0	$195,000	DWSRF Reporting	$278,571
G. Contingency	$1,950,000	$0	$1,950,000	Lower end contingency	$2,785,714
H. Pre-purchase Materials/Equip.	$0	$0	$0		$0
I. Land and Right-of-Way	$0	$0	$0		$0
J. Other	$0	$0	$0		$0
K. Total Project Costs	**$19,500,000**	**$0**	**$19,500,000**	**$0**	**$27,857,143**

Includes: 13.3 mi. AC Pipe Replacement and 11 undercrossings (CIP 6010) and Cathodic Protection Project (CIP 6011).

LSCE's extensive knowledge and understanding of the TODB water system and water CIP funding and implementation experience will facilitate cost effective project implementation costs.

DWSRF Funding Approach – Budget Benefits

- DWSRF Funding (12/31/2023 approval)
  - Loan Amount = $20M (conservative round figure) (planning/design/construction/administration)
  - 30-Year Term Financing/assumes 1.6% interest rate
  - Annual Debt Service = $840,000/year (full loan payments begin 1 year after construction)
- First reimbursement for 100% Planning/Design Costs
- Payments during construction – interest only (payments ramp up slowly)
- Budget flexibility to pay-go fund other smaller CIP projects
- Future water asset risk reduced
- DWSRF will provide the TODB with the most CIP budget flexibility

Next Steps

- Recommendations
  - Update long term funding strategies – water and wastewater
  - Pursue DWSRF Construction Application For Water Distribution Pipe R&R Project in 2022
    - Fund as much as possible at lowest rate (refer to 20-year CIP Plan)
    - 90% Design required for funding approval – LSCE can complete for low cost with system knowledge
  - Pursue SGMA Implementation & IRWM Round 2 grant funding in 2022
    - For Well Projects if SGMA compliance sustainability is achieved
    - For Well Projects if project is a priority for the IRWM Group
  - Pursue one EPA grant opportunity with the highest chance for success
  - Pursue County Drought Funding through County if consolidation opportunities exist
  - Collaborate and leverage grant funding opportunities where possible

Town of Discovery Bay

"A Community Services District"

STAFF REPORT

Meeting Date

August 3, 2022

Prepared By: Gregory Harris, District Wastewater Engineer
Submitted By: Dina Breitstein, General Manager

Agenda Title

Discussion and Provide Feedback on Pump Station W Options for Repair.

Recommended Action

Provide feedback for staff on options for Pump Station W with future board action.

Executive Summary

The Town operates an Influent Pump Station at Plant No. 1 that conveys all sewage flows from the Town to Plant No. 2. The Influent Pump Station was backed up by Pump Station W immediately adjacent to it. Pump Station W served as a backup pumpstation and to allow maintenance work to be performed on the primary Influent Pump Station.

As part of the Denitrification Project, needed repairs were scheduled for both the Influent Pump Station and Pump Station W. Repair activities uncovered sever structural damage to Pump Station W and all project work on Pump Station W was stopped. The Structural Engineer for HREWIT indicated the structural steel was compromised and the structure no longer safe. To allow repairs to the influent pump station, the roof to the structure was removed and soil excavated off of the top of the structure. Repairs to the influent pump station are now complete and Pump Station W now has to be dealt with. It currently sits in a partially excavated hole with no roof.

The Town asked HERWIT for options to repair or replace Pump Station W. HERWIT prepared a Memo on Pump Station W discussing the repair options. This memo was reviewed with HERWIT in the Wastewater Committee meeting on 7/6/2022 and options discussed. Based on feedback in the meeting, HERWIT has revised the attached memo to include the following revisions.

1. Eliminate the jib crane and substitute purchase of a larger boom truck to allow removal of pumps at all lift stations. Include this option under all alternatives.
2. Refine all cost estimates by obtaining Vendor Quotes and ask for pricing information from Anderson Pacific who is the contractor constructing the denitrification project.
3. Reduce project contingency and uncertainty.

The WW Committee also requested consultation with the Town Attorney to confirm it is appropriate to proceed a million dollar or more change order with Anderson.

Dina discussed the change order approach with Andy Pinasco, the Town Attorney. Andy is in agreement that proceeding with a change order with Anderson as a change order is appropriate given the following.

1. Construction work on Pump Station W was integral to the initial project and work had to be stopped and now modified based on discovered field conditions.
2. Pump Station W is a critical part of the Influent Pump Station system for proper operation and maintenance.
3. Immediate action on Pump Station W is required and going out to bid as a separate project will significantly delay the repairs and cost more.
4. All change order costs will be properly reviewed and documented.

Previous guidance from the WW Committee indicate a desire to fix Pump Station W and install the new Bar Screen and

Compactor as a direct change order with Anderson, consistent with Option 2 of the attached Memo. After internal consultation, Town WW Staff, Veolia, and HERWIT are recommending proceeding with Option 2 in the attached Memo for a total cost of $2.05 million.

Specific Committee Action:

Provide feedback for Staff on Pump Station W options with board action to follow.

Previous Relevant Board Actions for This Item

Fiscal Impact: $1Million to $2Million
Amount Requested: TBD
Sufficient Budgeted Funds Available?: No.
Prog/Fund # Category: TBD

Attachments

1. Pump Station W Options Memo Revision 1 dated 7-26-2022
2. Vendor Quote for lager boom truck for influent pump station.
3. Vendor Quotes on bar screen and compactor for Influent Pump station.
4. Cost proposal from Anderson Pacific for Pump Station W (only).

AGENDA ITEM: F1

HERWIT ENGINEERING

Memo

To:	WW Committee TODB CSD	From:	Gregory Harris HERWIT Engineering
		Date:	July 26, 2022

Reference: **Pump Station W at Plant No. 1 – Revision 1**

Introduction

The Wastewater Committee was previously notified that Pump Station W at Plant No. 1 was found to be structurally unsafe when rehabilitation work was started as part of the Denitrification project. As a result, all project work was halted. Because Pump Station W was required to operate in some manner to allow needed repairs to the influent pump station to take place, a change order was given to the Contractor to remove all soil and concrete off of the roof of the pump station and to temporarily reinstall pumps with temporary piping and controls. PS-W was operated in this capacity while repairs to the influent pump station were being made. Figure 1 shows a current photo of Pump Station W.

Figure 1 - Pump Station W Currently

Reference: Pump Station W at Plant No. 1

Pump Station W cannot be left in this condition. In addition to long term backup, Pump Station W is also needed to allow any future repair work to take place inside of the influent pump station. Because of this, the Town requested HERWIT provide options for Pump Station W going forward with ballpark costs to help in decision making on the next steps. These options are listed below and discussed further in this memo.

1. Rebuild Pump Station W with similar construction as a change order under the Denitrification project. Reuse existing pumps, piping, and controls and purchase boom truck.
2. Option 1 plus add a bar screen and compactor to the Influent Pump Station.
3. Abandon Pump Station W, remove pumps, and backfill internal and external portions of structure with engineered fill as a change order under the Denitrification project. Build new station in the same location at future date as a stand alone project and purchase boom truck.
4. Option 3 plus add a bar screen and compactor to the Influent Pump Station.

Option 1 – Rebuild Pump station W as Change Order to Existing Contract and Purchase Boom Truck.

Under this option, the Town would demolish the remainder of the concrete structure, immediately build a new structure for PS-W in the same location. Reinstall existing pumps and controls, and reuse existing piping as applicable. This work would be done as a change order to the existing contract with Anderson Pacific for the Denitrification Project. There are cost savings to the Town for this approach because it ensures the existing pumps, piping, and controls will be reused and paced in service in a timely manner. It also does not require interim backfill of the hole prior to construction. The Town would also purchase a boom truck.

Ballpark costs (in today's dollars) for this Option are presented in Table 1.

Option 2 – Rebuild Pump station W as a Change Order to Existing Contract, Add Bars Screen Compactor and purchase boom truck.

This is the same as Option 1 with the addition of constructing a new bar screen, and compactor, at the influent pump station. In discussing alternatives for Pump Station W with the Town and Veolia staff, several operational issues associated with the Influent Pump Station were also brought up and discussed. These include the following.

1. The Town lift truck is unable to extend a boom out far enough to lift Pump No. 3 out of the Influent Pump Station. As a result, the only way to pull and install this pump as part of routine maintenance is to rent a larger crane every time the pump needs to be pulled and coordinate it as a special project with additional cost to the Town.
2. While there are bar screens at Plant No. 2, rags entering the Influent Pump Station prior to Plant No. 2 are so thick they are damaging the pumps and wearing them out sooner than was expected. This has led to multiple rebuilds required on all of the influent pumps since they have been installed. In addition, not all of the rags end up getting pumped out of the Influent Pump Station. Over time they build up a huge matt on top of the water making servicing the pumps and controls difficult. The Influent Pump Station has limited access to the interior of the pump station and is very deep. As a result, Veolia staff have had very limited success vacuuming rags out of the influent pump station.

Reference: **Pump Station W at Plant No. 1**

To mitigate Operational Issue No. 1, Veolia reached out to a crane manufacture and obtained a quote to install a permanent jib crane at the Influent Pump Station. A very large foundation would need to be constructed to support the crane. The vendor quote was combined with the foundation cost to develop a ball park cost for this alternative. However, after reviewing with the Water Wastewater committee Staff was directed to eliminate the jib crane and substitute the cost of purchasing a larger boom truck.

To mitigate Operational Issue No. 2, Veolia requested a new bar screen and compactor be installed in front of the Influent Pump Station to remove rags before they enter the pump station. It was hoped this could be worked into the Pump Station W replacement. HERWIT analyzed options for installing a single bar screen and compactor and found the lowest cost way to do this was to modify the inlet of the Influent Pump Station rather than build a new structurer in front of the Influent Pump Station. Figure 2 shows a section view of the Influent Pump Station with a bar screen, compactor and jib crane.

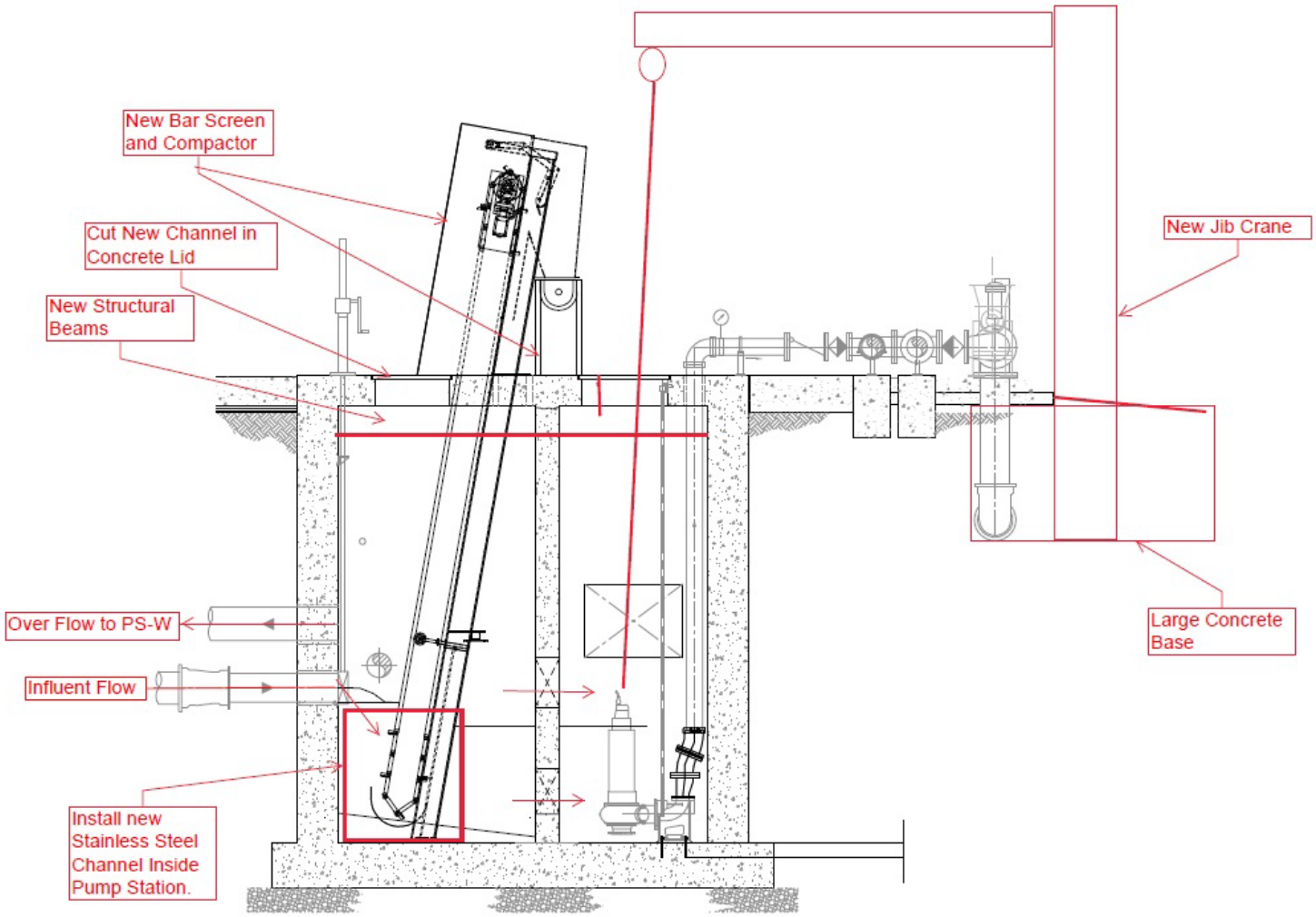


Figure 2 – Influent Pump Station With Optional Bar Screen and Jib Crane

Reference: Pump Station W at Plant No. 1

Ballpark costs (in today's dollars) for this Option are presented in Table 2.

Option 3 – Rebuild Pump station W as a Separate Bid Project in the Future and Purchase a Boom Truck

Under this option, the Town would demolish the remainder of the concrete top, backfill the existing pump station inside and outside up to grade, and remove all pumps, piping, and controls as a change order under the Denitrification project. At some point in the future, the Town would build something equivalent to Pump Station W as a separate standalone project. Timing is very important if the existing pumps, piping and controls are going to be reused in the re-built pump station. If the existing pumps and controls are allowed to sit around unused for years they will become useless. For cost estimating purposes, it is assumed this project will proceed to design and be built within the next 12 months. This option is more expensive than Option 1 because of the need to backfill the existing structure prior to new work taking place, additional overhead costs to produce a standalone project, and the potential to be unable to reuse existing equipment if the delay is longer than anticipated. This option also includes the cost of purchasing a boom truck.

Ballpark costs for this Option are presented in Table 3.

Option 4 – Rebuild Pump station W as a Separate Bid Project in the Future, Add Bars Screen Compactor and Purchase Boom Truck

This is the same as Option 3 with the addition of constructing a new bar screen, compactor, at the influent pump station for the same reasons as discussed under Option 2.

Ballpark costs for this Option are presented in Table 4.

Ballpark Costs

Ball park cots were previously provided to the Wastewater Committee on July 6. Direction was provided in this meeting to eliminate the Jib crane and get costs on a larger boom truck that can be used around the entire District. Direction was also provided to refine costs estimates by getting Vendor quotes and working with Anderson Pacific to obtain additional Contractor Quotes. Tables 1, 2, 3 and 4 present the ballpark costs for each of the options and include updated costs incorporating Committee comments. Copies of quotes on the boom truck and bar screen and compactor are attached. Detailed design has not been done on these options and all ballpark estimates while improved are not final costs. They will allow for a decision on which option to select. All costs are estimates in "Today's Dollars". There will be an inflationary increase in construction cost the longer future construction is delayed. Please also be aware there are a lot of inflationary pressures in the construction market that make the magnitude of future cost increases unknown. There are also currently supply chain surcharges and availability issues for stainless steel and other construction materials, which are resulting in high prices. It is unknown how long these current surcharges will last.

Conclusions

The option that works best for the Town is largely dependent on timing and Town finances. It may also be desirable to have a public bid for changes of this magnitude to attempt to receive a lower bid cost upfront than

Reference: **Pump Station W at Plant No. 1**

what may be proposed by change order. These factors should be weighed against the reduced overhead costs for proceeding with a change order.

Table 1: PS-W Option 1 - Change Order to Existing Contract

Description	Estimated Cost
Backfill Existing Structure	$ -
Demo Old Structure	$ -
Demo Old Structure & Construct New Pump Station	$ 1,050,000
Reuse Existing Pumps, Piping, and Controls	$ 25,000
Subtotal	$ 1,075,000
Contingency, %	10%
Contingency, $	$ 108,000
Subtotal	$ 1,183,000
Purchase Boom Truck Inf. PS.	$ 100,000
Total	$ 1,283,000
Engineering Design	
5%	$ 64,000
Engineering Services During Construction	
5%	$ 64,000
Total Project Cost	$ 1,410,000

Reference: **Pump Station W at Plant No. 1**

Table 2: PS-W Option 2 - Change Order to Existing Contract

Description	Estimated Cost
Backfill Existing Structure	$ -
Demo Old Structure	$ -
Demo Old Structure & Construct New Pump Station	$ 1,050,000
Reuse Existing Pumps, Piping, and Controls	$ 25,000
Purchase New Screen and Compactor @ Influent P.S.	$ 325,000
Install New Screen and Compactor @ Influent P.S.	$ 150,000
Structural Mods to Influent Pump Station	$ 50,000
Subtotal	$ 1,600,000
Contingency, %	10%
Contingency, $	$ 160,000
Subtotal	$ 1,760,000
Purchase Boom Truck Inf. PS.	$ 100,000
Total	$ 1,860,000
Engineering Design	
5%	$ 93,000
Engineering Services During Construction	
5%	$ 93,000
Total Project Cost	$ 2,050,000

Reference: **Pump Station W at Plant No. 1**

Table 3: PS-W Option 3 - Bid as New Project	
Description	**Estimated Cost**
Backfill Existing Structure	$ 100,000
Re-excavate & Demo Old Structure	$ 25,000
Demo Old Structure & Construct New Pump Station	$ 1,050,000
Reuse Existing Pumps, Piping, and Controls	$ 100,000
Subtotal	$ 1,275,000
Contingency, %	10%
Contingency, $	$ 128,000
Subtotal	$ 1,403,000
Purchase Boom Truck Inf. PS.	$ 100,000
Total	$ 1,503,000
Engineering Design	
6%	$ 90,000
Engineering Services During Construction	
6%	$ 90,000
Total Project Cost	$ 1,680,000

Reference: **Pump Station W at Plant No. 1**

Table 4: PS-W Option 4 - Bid as New Project	
Description	**Estimated Cost**
Backfill Existing Structure	$ 100,000
Re-excavate & Demo Old Structure	$ 25,000
Demo Old Structure & Construct New Pump Station	$ 1,050,000
Reuse Existing Pumps, Piping, and Controls	$ 100,000
Purchase New Screen and Compactor @ Influent P.S.	$ 325,000
Install New Screen and Compactor @ Influent P.S.	$ 150,000
Structural Mods to Influent Pump Station	$ 50,000
Subtotal	$ 1,800,000
Contingency, %	10%
Contingency, $	$ 180,000
Subtotal	$ 1,980,000
Purchase Boom Truck Inf. PS.	$ 100,000
Total	$ 2,080,000
Engineering Design	
6%	$ 125,000
Engineering Services During Construction	
6%	$ 125,000
Total Project Cost	$ 2,330,000

2012 NATIONAL 500E2 MOUNTED ON 2012 FORD F750 XL

USD **$75,000**

Hide Thumbnails

Seller Information

Mark Peters
California 94621

Phone: +1 510-508-1208
Contact: Mark Peters

Machine Location:
Martinez, California 94553

Description

Good boom truck, truck runs good, boom operates good. California compliant, currently registered in CA. Crane cert expired last year. 6spd manual transmission, conventional brakes.

Specifications

Year 2012 | **Manufacturer** NATIONAL | **Model** 500E2 | **Upper Hours** 2,753 | **Condition** Used | **Truck Year** 2012 | **Truck Manufacturer** FORD | **Truck Model** F750 XL |

Drive Side Left Hand Drive |

Show As Table

NATIONAL CRANE®
by Manitowoc

500E2 Series
Product Guide

ASME B30.5 • Imperial 85%

Features

- 16,3 t (18 USt) rating
- 21,6 m (71 ft) three-section full power boom
- Standard hydraulic capacity alert system
- Internal anti-two block

NATIONAL CRANE 500E2 SERIES

Features

The 500E2 stand-up boom truck is great for owner/operator businesses and rental fleets featuring a 16,3 t (18 USt) maximum capacity, 36,9 m (121 ft) maximum vertical reach, and 24,7 m (81 ft) maximum vertical hydraulic reach.

> Three-section boom

With a capacity of 16,3 t (18 USt) the Series 500E2 is equipped with a three-section 21,6 m (71 ft) boom. The long boom allows the operator to perform more lifts without the use of a jib, reducing setup time and improving efficiency.

> Innovative outrigger design

The Series 500E2 comes equipped "A" frame boxed slide outriggers with swivel pads and ASH type stabilizers. An optional single front outrigger is also available for 360° operation.

Front outriggers: 6,19 m (20.25 ft) span
Rear stabilizers: 3 m (10 ft) span

> NEW Electronic throttle and OMS system

New electronic pedals utilizing J1939 communication for easy set up and reliable engine communication. Outrigger monitoring system (OMS) with improved system feedback at the hands of the operator.

> Productivity increasing options and Lift Solutions™

- Hydraulic hose reels
- Factory-installed toolbox options
- Additional valve section and controls for hydraulic accessories
- Fixed and rotating 2-person platforms
- Four function radio remote controls
- Continuous rotation

Lift Solutions™

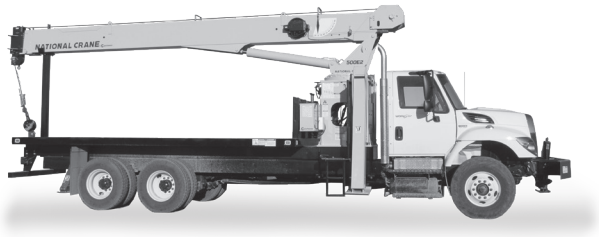
> Chassis customization options

- Steel and aluminum tool boxes
- 15 or 30 ton pintle hitch integrated in rear of machine
- Polymeric outrigger cribbing and cribbing stowage

Truck Mod Center™

Jobsite benefits

- The steel torsion box and flatbed further reduce frame flex
- Speedy-reeve boom tip and sheave blocks simplify rigging changes by decreasing the time needed to change line reeving
- Crane components painted before assembly reduce the chance of rust, improve serviceability and enhance the appearance of the crane
- A control knob located on the swing motor brake release valve can be easily adjusted to the crane operator's swing speed preference
- Rear stabilizers include an independent stabilizer control and bolt/clamp on mounting
- Engine start/stop switches
- Outriggers are equipped with a motion alarm and an outrigger monitoring system
- Emergency stop overrides located at control station
- Crane function control knobs use ISO symbols for language independence



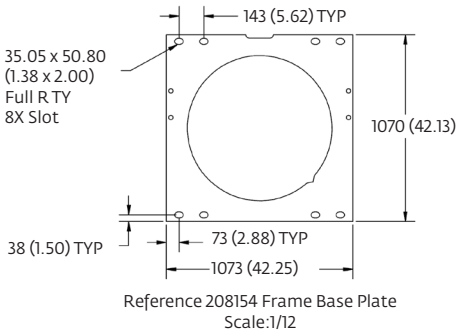
Serviceability

- Bearings on the boom extension and retract cables can be greased through access holes in the boom side plates
- Removable winch allows the internal telescoping cylinder to be removed quickly, without dismantling the boom
- Internal anti-two-block wire routing eliminates external reel and wire to protect crane components
- The boom sheave case is open, allowing access to replace the internal anti-two-block wire and to observe internal boom components
- Internal boom parts have been reduced, decreasing service time when rebuilding the machine

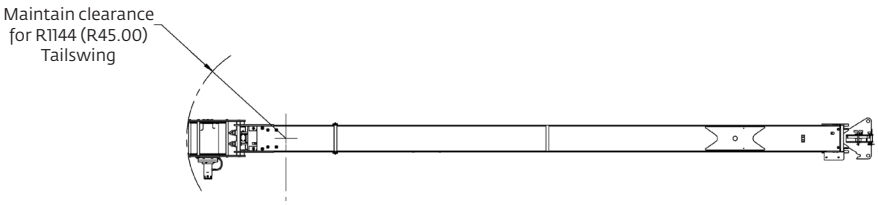
Contents

Dimensions

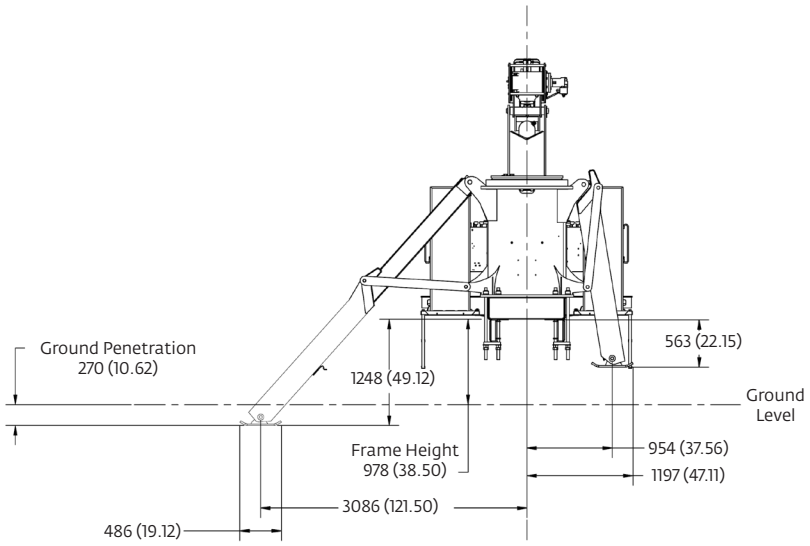
Series	Retracted length	Extended length	G (wet)	Dry/Wt	With oil/Wt
571E2	8,4 m (27 ft 6 in)	21,64 m (71 ft)	1,91 m (75 in)	6677 kg (14,721 lb)	6947 kg (15,316 lb)

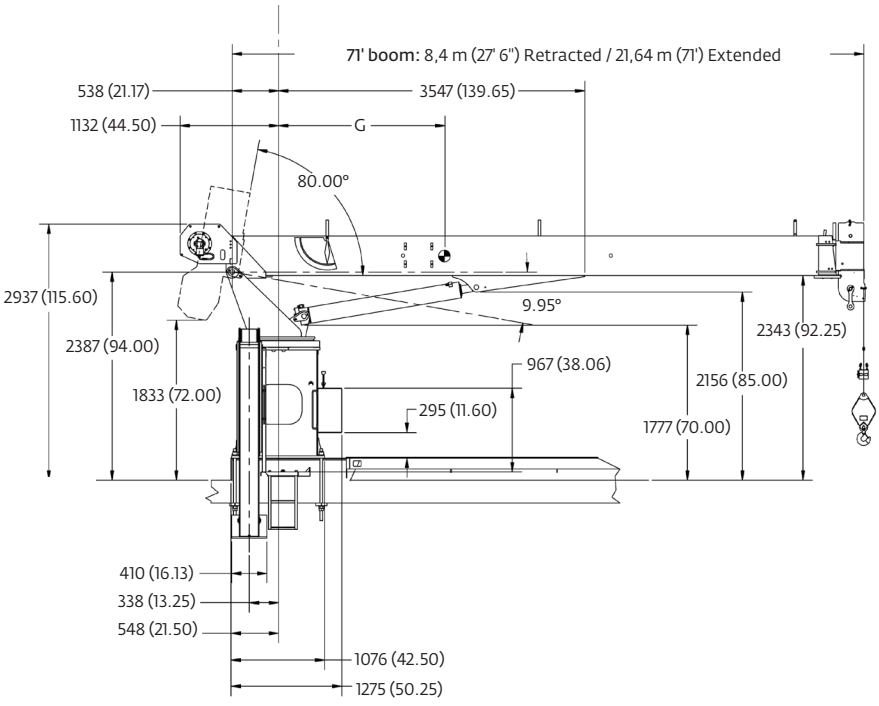


Reference 208154 Frame Base Plate
Scale:1/12



Dimensions are in mm (in) unless otherwise specified.





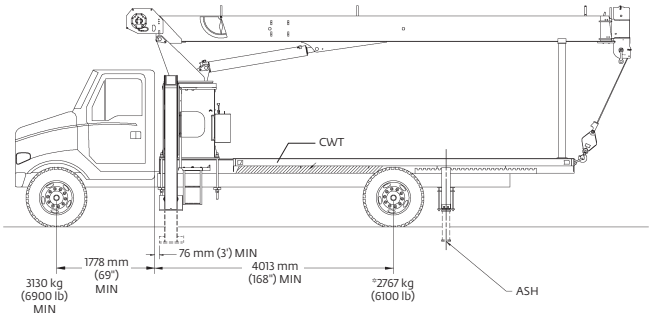
Mounting configurations

The configurations are based on the Series 500E2 with an 85% stability factor. The complete unit must be installed in accordance with factory requirements and a test performed to determine actual stability and counterweight requirements since individual truck chassis vary.

Configuration 1 with Torsion Box - 180˚ Full capacity work area

Working area: 180˚
Gross Axle Weight Rating Front: 5443 kg (12,000 lb)
Gross Axle Weight Rating Rear: 9525 kg (21,000 lb)
Gross Vehicle Weight Rating: 14 968 kg (33,000 lb)
Wheelbase: 602 cm (237 in)
Cab to Axle/trunnion (CA/CT): 427 cm (168 in)
Frame Strength: 758 MPa (110,000 PSI):
- Frame Section Modulus (SM) under crane – 261 cm^3 (15.9 in^3)
- Frame Section Modulus (SM) over rear stabilizers – 213 cm^3 (13 in^3)

Stability Weight, Front: 3130 kg (6900 lb) minimum*
Stability Weight, Rear: 2767 kg (6100 lb) minimum*
Estimated Average Final Weight: 13 608 kg (30,000 lb)

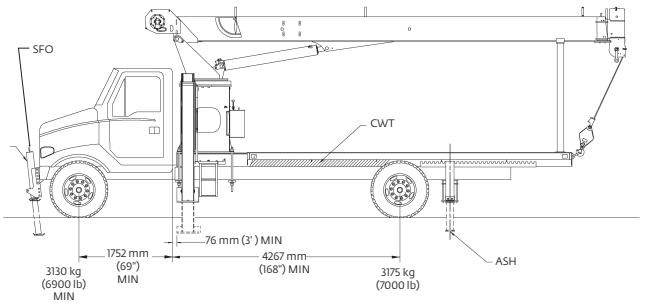


This configuration is the least expensive method for the Model 571E2. This mount, with the crane mounted behind the cab, requires the least weight of all mounts for stability; thus, you can haul larger payloads on your truck. It requires standard subbase and rear (ASH) stabilizers.

Configuration 2 with Torsion Box - 360˚ Full capacity work area

(Extended front frame rails required for SFO installation.)
Working area: 360˚
Gross Axle Weight Rating Front: 5443 kg (12,000 lb)
Gross Axle Weight Rating Rear: 9525 kg (21,000 lb)
Gross Vehicle Weight Rating: 14 968 kg (33,000 lb)
Wheelbase: 602 cm (237 in)
Cab to Axle/trunnion (CA/CT): 427 cm (168 in)
Frame Strength: 758 MPa (110,000 PSI):
- Frame Section Modulus (SM) under crane – 261 cm^3 (15.9 in^3)
- Frame Section Modulus (SM) over rear stabilizers – 213 cm^3 (13 in^3)

Stability Weight, Front: 3130 kg (6900 lb) minimum*
Stability Weight, Rear: 3175 kg (7000 lb) minimum*
Estimated Average Final Weight: 13 835 kg (30,500 lb)



Requires front SFO stabilizer to give machine full capacity 360˚ around the truck. Truck must meet the minimum requirements above. Front stabilizer gives the machine a solid base, helping the operator control loads precisely.

**Estimated axle scale rates prior to installation of crane, stabilizers and subbase for 85% stability.*

Mounting configurations

Minimum truck requirements

Many factors must be considered in the selection of proper truck for an 500E2 crane. Items which must be considered are:

1. Axle Rating. Axle ratings are determined by the axles, tires, rims, springs, brakes, steering and frame strength of the truck. If any one of these components is below the required rating, the gross axle rating is reduced to its weakest component value.

2. Wheelbase (WB), Cab-to-Trunnion (CT) and Bare Chassis Weight. The wheelbase, CT and chassis weights shown are required so the basic 500E2 can be legally driven in most states and meet stability requirements. The dimensions given assume the sub-base is installed properly behind the truck cab. If exhaust stacks, transmission protrusions, etc., do not allow a close installation to the cab, the WB and CT dimensions must be increased. Refer to the Mounting Configuration pages for additional information.

3. Truck Frame. Try to select a truck frame that will minimize or eliminate frame reinforcement or extension of the after frame (AF). Many frames are available that have the necessary after frame (AF) section modulus (SM) and resistance to bending moment (RBM) so that reinforcing is not required. The front hydraulic jack is used for a 360˚ working range around the truck. The frame under the cab through the front suspension must have the minimum S.M. and RBM because reinforcing through the front suspension is often difficult because of engine, radiator mounts and steering mechanics. See "Truck Requirements" and "Frame Strength" pages for the necessary section modulus and resistance to bending moment values. Integral extended front frame rails are required for front center stabilizer installation.

4. Additional Equipment. In addition to the axle ratings, wheelbase, cab-to-axle requirements and frame, it is recommended that the truck is equipped with electronic engine control, increased cooling and a transmission with a PTO opening available with an extra heavy duty PTO. A conventional cab truck should be used for standard crane mounts.

5. Neutral Start Switch. The chassis must be equipped with a switch that prevents operation of the engine starter when the transmission is in gear.

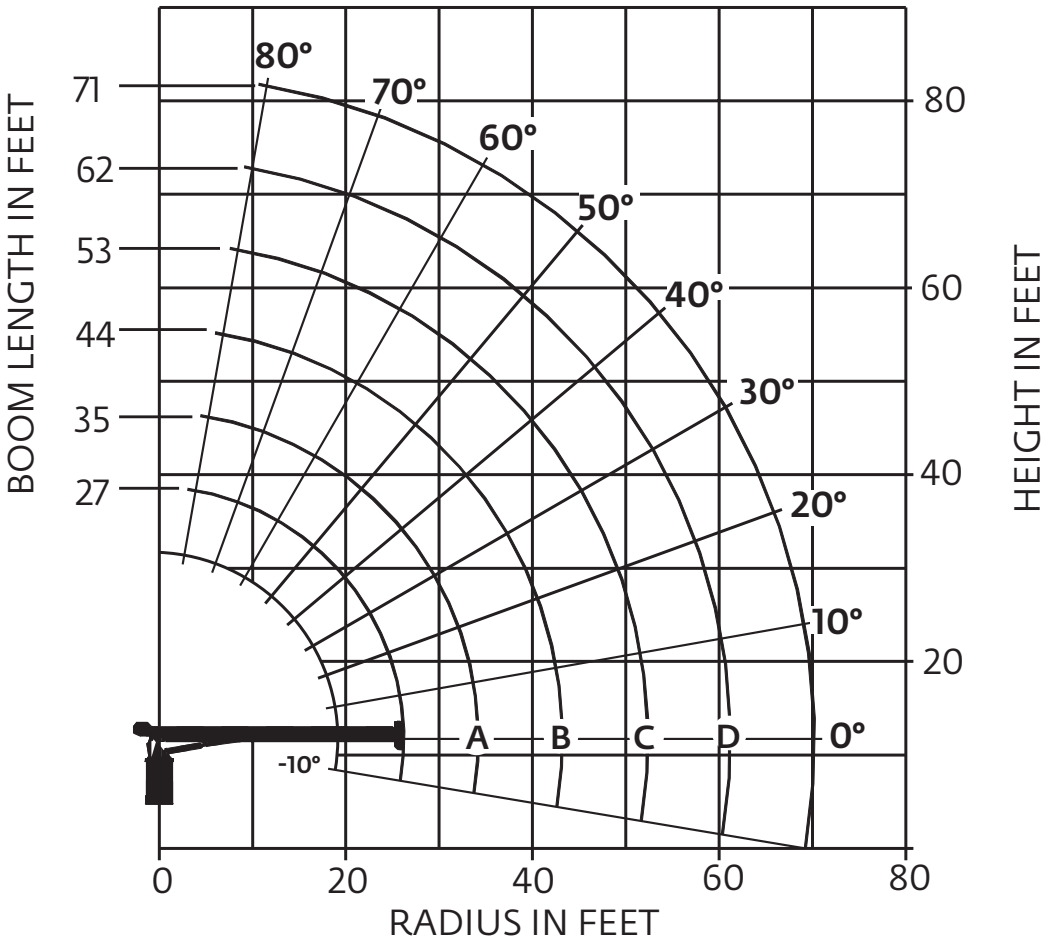
Notes:

- Gross Vehicle Weight rating (GVWR) is dependent on all components of the vehicle (axles, tires, springs, frame, etc.) meeting manufacturers' recommendations: always specify GVWR when purchasing trucks
- Diesel engines require a variable speed governor for smooth crane operation; electronic fuel injection requires EET engine remote throttle
- All mounting data is based on a National Series 500E2 with an 85% stability factor
- The complete unit must be installed in accordance with factory requirements, and a test performed to determine actual stability and counterweight requirements per SAE J765; contact the factory for details
- Transmission neutral safety interlock switch is required

Working range

Series 571E2

21,6 m (71 ft) | 100% | 360°



CAUTION:

- **Do not operate crane booms, jib extensions, any accessories or loads within 3 m (10 ft) of live power lines or other conductors of electricity.**
- Jib and boom capacities shown are maximum for each section.
- Do not exceed capacities at reduced radii
- Load ratings shown on the load rating charts are maximum allowable loads with the outriggers properly extended on a firm, level surface and the crane leveled and mounted on a factory recommended truck.
- Always level the crane with the level indicator located on the crane.
- The operator must reduce load to allow for factors such as wind, ground conditions, operating speeds and their effects on freely suspended loads.
- Overloading this crane may cause structural collapse or instability.
- Weights on any accessories attached to the boom or loadline must be deducted from the load chart capacities.
- Do not exceed jib capabilities at any reduced boom lengths.
- Do not deadhead lineblock against boom tip when extending boom or winching up.
- Keep at least three wraps of loadline on drum at all times.
- Use only specified cable with this machine.

THIS CHART IS ONLY A GUIDE AND SHOULD NOT BE USED TO OPERATE THE CRANE.
The individual crane's load chart, operating instructions and other instructional plates must be read and understood prior to operating the crane.

Load chart

Series 571E2

 21,6 m (71 ft)

 100%

 360°

 Pounds

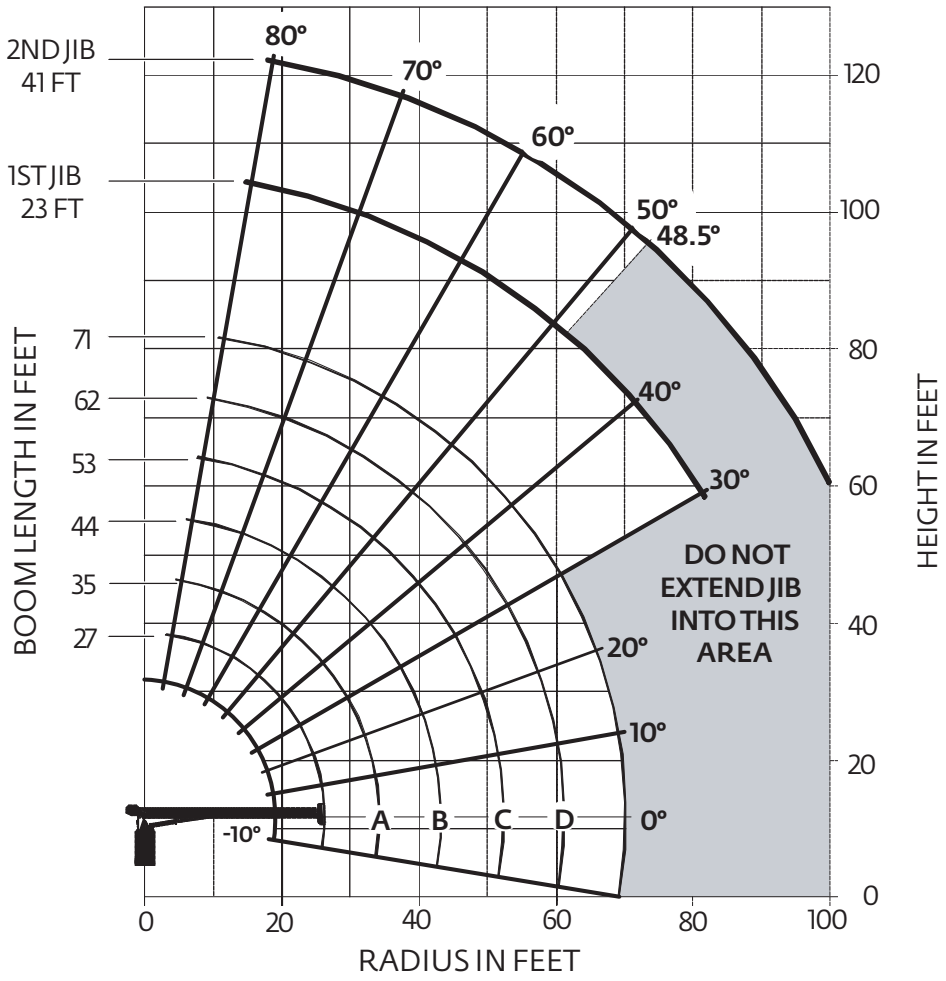
LOAD RADIUS (FEET)	LOADED BOOM ANGLE	27 FT BOOM	LOADED BOOM ANGLE	A 35 FT BOOM	LOADED BOOM ANGLE	B 44 FT BOOM	LOADED BOOM ANGLE	C 53 FT BOOM	LOADED BOOM ANGLE	D 62 FT BOOM	LOADED BOOM ANGLE	71FT BOOM
5	77.5	36,000										
8	70.5	24,650	75.5	20,550								
10	66	19,500	72	17,250	76.5	16,700	79.5	16,350				
12	61	16,250	68.5	14,850	73.5	14,350	77	14,000				
14	56	14,250	64.5	13,050	71	12,600	75	12,250	77.5	12,000		
16	50.5	12,600	61	11,600	68	11,200	72.5	10,850	75.5	10,650	78	9600
20	38.5	9950	53	9450	62	9150	68	8850	72	8650	75	8000
25	16	6300	41	7450	55	7350	62	7150	67	6950	70.5	6750
30			26.5	5650	46	6060	55.5	5950	62	5800	66.5	5700
35					35.5	4900	48.5	5000	56.5	4900	61.5	4800
40					20	3600	40.5	4150	50.5	4200	57	4100
45							30.5	3400	43.5	3450	51.5	3500
50							14	2300	36	2800	46	2850
55									26	2300	39.5	2350
60											32	1950
65											22.5	1650
	0	4100	0	2650	0	1750	0	1200	0	750	0	400

THIS CHART IS ONLY A GUIDE AND SHOULD NOT BE USED TO OPERATE THE CRANE.
The individual crane's load chart, operating instructions and other instructional plates must be read and understood prior to operating the crane.

Working range

Series 571E2 with jib

21,6 m (71 ft) | 7.0 m-12.5 m (23 ft-41 ft) | 100% | 360°



CAUTION:

- **Do not operate crane booms, jib extensions, any accessories or loads within 3 m (10 ft) of live power lines or other conductors of electricity.**
- Jib and boom capacities shown are maximum for each section.
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- Load ratings shown on the load rating charts are maximum allowable loads with the outriggers properly extended on a firm, level surface and the crane leveled and mounted on a factory recommended truck.
- Always level the crane with the level indicator located on the crane.
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- Do not exceed jib capabilities at any reduced boom lengths.
- Do not deadhead lineblock against boom tip when extending boom or winching up.
- Keep at least three wraps of loadline on drum at all times.
- Use only specified cable with this machine.

THIS CHART IS ONLY A GUIDE AND SHOULD NOT BE USED TO OPERATE THE CRANE.
The individual crane's load chart, operating instructions and other instructional plates must be read and understood prior to operating the crane.

Load chart

Series 571E2 with jib


21, 6 m
(71 ft)


7.0 m-12.5 m
(23 ft-41 ft)


100%


360°


Pounds

LOAD RADIUS (FEET)	LOADED BOOM ANGLE	27 FT BOOM	LOADED BOOM ANGLE	A 35 FT BOOM	LOADED BOOM ANGLE	B 44 FT BOOM	LOADED BOOM ANGLE	C 53 FT BOOM	LOADED BOOM ANGLE	D 62 FT BOOM	LOADED BOOM ANGLE	71 FT BOOM
5	77.5	36,000										
8	70.5	24,050	75.5	20,100								
10	66	18,900	72	16,800	76.5	16,300	79.5	16,050				
12	61	15,650	68.5	14,400	73.5	13,950	77	13,700				
14	56	13,650	64.5	12,600	71	12,200	75	11,950	77.5	11,750		
16	50.5	12,000	61	11,150	68	10,800	72.5	10,550	75.5	10,400	78	9350
20	37.5	9350	53	9000	62	8750	68	8550	72	8400	75	7750
25	14	5700	41	7000	55	6950	62	6850	67	6700	70.5	6500
30			26.5	5200	46	5660	55.5	5650	62	5550	66.5	5450
35					35.5	4500	48.5	4700	56.5	4650	61.5	4550
40					20	3200	40.5	3850	50.5	3950	57	3850
45							30.5	3100	43.5	3200	51.5	3250
50							14	2000	36	2550	46	2600
55									26	2050	39.5	2100
60											32	1700
65											22.5	1400
	0	3500	0	2200	0	1350	0	900	0	500		

LOAD RADIUS (FEET)	LOADED BOOM ANGLE	23 FT JIB	LOADED BOOM ANGLE	41 FT JIB
20	77	3400		
25	74.3	2900	77.3	2050
30	70.6	2450	74.5	1800
35	67.5	2100	72.2	1550
40	64.1	1800	69.5	1400
45	60.3	1600	66.4	1200
50	57.5	1450	63.4	1050
55	53.8	1250	60.9	950
60	49.8	1100	57.8	850
65	46	950	55.2	750
70	41.6	850	51.7	600
75	36.6	750	48.1	500

NOTE:
1. Capacities do not exceed 85% stability.
2. Shaded areas are structurally limited capacities.

THIS CHART IS ONLY A GUIDE AND SHOULD NOT BE USED TO OPERATE THE CRANE.
The individual crane's load chart, operating instructions and other instructional plates must be read and understood prior to operating the crane.

Specifications

Superstructure

Boom
8,2 m – 21,6 m (27 ft – 71 ft), three-section boom with a max tip height of 24,69 m (81 ft). Includes Proportional extension via multi-stage hydraulic cylinder and cable operation; four-plate, high-strength steel construction; two-sheave, quick reeve boom nose and Easy-glide wear pads.

Boom elevation
One (1) double-acting, hydraulic cylinder with holding valve with a -10^0 to $+80^0$.

Hydraulic Capacity Alert System (HCAS) and Anti-Two Block System (ATB)
Hydraulic capacity alert (HCA) system to assist the operator in preventing crane overload when making lifts on main boom. This HCA system is a hydraulically operated, maximum capacity sensing device designed to stop all of the normal crane functions that can cause overload when maximum capacity is exceeded on the main boom. Any function that will increase the load radius plus winch up of load is interrupted when maximum capacity is exceeded. Color-coded load range gauge located at each operator station. Two indicator lights provide an alert to the operator of function power loss and distinguish whether the hydraulic capacity alert or anti-two block system is activated. A momentary override key switch for emergency repositioning of boom. Audio visual warning and crane function lockout. Hard-wired ATB circuit routed internally to the boom.

Operator station
Dual-station ASME B30.5 compliant proportional crane controls with mechanical direct-to-valve control of hoist, lift, telescope and swing functions on both the driver and passenger sides of the crane. Mechanical direct-to-valve control of all outrigger functions on both the driver and passenger sides of the crane. HCA system: Color-coded load range gauge located at each operator station; A momentary override key switch for emergency repositioning of boom. Sealed electric switches for control of engine start/stop and horn. Throttle pedal located at each side. Load chart(s) located at each side.

Slewing
One (1) planetary slewing gear with a low speed high torque motor. Integrated holding valves and spring applied, pressure released brake release circuit; 375° non-continuous rotation; manually adjustable swing speed needle valve.

Hydraulic system
Open-center hydraulics system allowing for multifunction operation of all crane functions. One (1) SAE-BB mounted, three-section gear pump for all functions and optimized system performance.

Shaft input of 2400 RPM generating:

Section #1 (Boom/Telescope/Outriggers): 68 lpm (18 gpm) max flow

Section #2 (Hoist): 128.7 lpm (34 gpm) max flow

Section #3 (Swing): 37.9 lpm (10 gpm)

66 gallon (249,8 L) hydraulic reservoir with SAE o-ring connections and integrated suction shut-off ball valve for easy maintenance and SAE o-ring hydraulic fittings and hoses.

Electrical system
Automotive grade, fully wire harnessed 12 VDC electrical system using sealed connectors.

Lower

Chassis mounting
Torsion resistant, high-strength steel subframe. Crane frame and subframe attached using threaded mounting bolts and drilled and bolted clamp plates for secure attachment to the truck chassis. Rear bumper underride protection standard on factory mounted cranes.

Mounting configurations
Standard Mount: Crane frame located behind the truck cab; Crane frame supported by a torsion resistant subframe; Subframe designed for a 20 ft (6,1 m) flatbed; A-frame style front outriggers at the crane frame; A-frame stabilizers; Full span outriggers load chart operation; boom stows over rear of truck; Removable boom rest fabricated from structural steel, located at the rear of the flatbed

Outriggers
Outrigger monitoring system for A-frame outriggers and A-frame stabilizers.

**Denotes optional equipment.*

Specifications

Optional items

- **Outriggers, Subframe and Flatbed**
  - > Single Front Outrigger (SFO) option
  - > Center mount front stabilizer with 25 in vertical stroke

- **Hook blocks**
  - > 6,35 t (7 USt) Overhaul ball for single-part-line operation
  - > Single-sheave, 11,3 t (12.5 USt) hook block for two to three part reeving
  - > Two-sheave, 19,9 t (22 USt) hook block for four to five part reeving (includes auxiliary lineblock and pendant link)

- **Jib**
  - > 7,0 m - 12,5 m (23 ft - 41 ft) telescoping boom extension (side fold for stowing), includes 5,5 m (18 ft) manual pull out section
  - > Max tip height with 21,6 m (71 ft) boom is 37,2 m (122 ft)
  - > RCL calibration for future jib option

- **Duty Cycle Package**
  - > Burst-of-speed winch control option, with dual standup control and hydraulic oil cooler, self-contained radiator system with electric fan

- **Hydraulics**
  - > Oil cooler option for duty-cycle operation
  - > One-option control circuit including valve and control lever

- **Operator Aids**
  - > Four-function wireless radio remote control
  - > Metric capacity charts
  - > Spanish documentation and decals

- **Heavy-Duty Personnel Basket**
  - > 544 kg (1200 lb) capacity steel basket with safety loops for two passengers
  - > Gravity leveling 183 cm x 107 cm (72 in x 42 in) platform
  - > Fast attachment and secure locking systems

  ** Load chart must show 1043 kg (2300 lb) minimum to operate this accessory)*

- **Bulkhead**
  - > Steel 30 in solid wall bulkhead

Specifications

Hoist

10,200 lb (4627 kg) planetary gear with a single speed motor;
Integrated motor manifold and spring applied, pressure released brake

Parts of Line	1 part line	2 part line	3 part line	4 part line	5 part line	6 part line
Max boom length (ft) at max elevations with stated rigging and load block and ground level	27,43 m (90 ft)	27,43 m (90 ft)	16,46 m (54 ft)	12,8 m (42 ft)	8,23 m (27 ft)	8,23 m (27 ft)
Lift and speed	3493 kg (7700 lb) 30 m/min (100 fpm)	6985 kg (15,400 lb) 15 m/min (50 fpm)	10 478 kg (23,100 lb) 10 m/min (33 fpm)	13 971 kg (30,800 lb) 7,6 m/min (25 fpm)	17 463 kg (38,500 lb) 6,1 m/min (20 fpm)	18 144 kg (40,000 lb) 5,1 m/min (16.7 fpm)

NOTE: All hoist lifts and speeds in this chart are shown on the fourth layer. Hoist lifts would increase on the lower layers and hoist speeds would increase on the higher layers.

Line Pulls and Reeving Information			
Hoists	**Cable specs.**	**Permissible line pulls**	**Nominal cable length**
Main	Standard 9/16" (14 mm) diameter rotation resistant Min. Breaking Strength 17 463 kg (38,500 lb)	3493 kg (7700 lb)	99,1 m (325 ft)

The approximate weight of 9/16 (14 mm) in wire rope is 1,04 kg/m (0.70 lb/ft).
*With certain boom and hoist tackle combinations, the allowable line pull may be limited by hoist performance. Refer to Hoist Performance table for lift planning to ensure adequate hoist performance on drum rope layer required.

Hoist Performance			
Wire rope layer	**Hoist Line Pull**	**Line speed**	**Drum Capacity**
1	4627 kg (10,200 lb)	33,8 m /min (111 ft/min)	19,5 m (64 ft)
2	4173 kg (9200 lb)	37,5 m /min (123 ft/min)	41,5 m (136 ft)
3	3810 kg (8400 lb)	41,2 m /min (135 ft/min)	65,5 m (215 ft)
4	3493 kg (7700 lb)	44,8 m /min (147 ft/min)	91,7 m (301 ft)
5	3221 kg (7100 lb)	48,5 m /min (159 ft/min)	120,1 m (394 ft)

*Refer to Line Pulls and Reeving Information table for max. lifting capacity of wire rope.

Synthetic rope layer height may vary and may reduce available line pull per layer.

Weight Reductions for Load Handling Devices	
Hook blocks and headache balls	
6,35 t (7 USt) overhaul ball	77,6 kg (171 lb)+
11,3 t (12.5 USt) single-sheave hook block	85 kg (187 lb)+
19,9 t (22 USt) two-sheave hook block	161 kg (355 lb)+

+ Refer to rating plate for actual weight

When lifting over boom extension, deduct total weight of all load handling devices reeved over main boom nose directly from boom extension capacity.

NOTE: All load handling devices and boom attachments are considered part of the load and suitable allowances MUST BE MADE for their combined weights. Weights are for Manitowoc furnished equipment.

Symbols glossary


Axles


Drive


Heavy duty jib


Radius


Boom


Electrical system


Hoist


Rotation


Boom elevation


Engine


Hook block


Speed


Boom extension


Extension


Hydraulic system


Steering


Boom length


Frame


Insert


Suspension


Boom nose


Fuel tank capacity


Lights


Swing


Brakes


Gear


Oil


Tires


Operators station


Grade


Outrigger controls


Transmission


Counterweight


Height (no max)


Outriggers

Manitowoc Cranes

Regional headquarters

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Manitowoc Crane Care™

Manitowoc Finance™

Form No. 500E2 Series PG
Part No. 500E2 / 2M / 0920

www.manitowoc.com

PUMP STN W RECAP

Sheet 1-	$9,378.26	Plug Pipes
Sheet 2-	$12,746.70	Demo Site
Sheet 3-	$14,329.53	Prep Site
Sheet 4-	$150,226.56	Shoring Rental
Sheet 5-	$16,254.15	Assemble System
Sheet 6-	$94,598.18	Exc/Install Sheets
Sheet 7-	$36,161.54	Demo Pump Stn
Sheet 8-	$31,689.19	Dewatering
Sheet 9-	$6,652.17	Rock
Sheet 10-	$213,174.47	Concrete
Sheet 11-	$67,339.08	CDF Backfill
Sheet 12-	$27,878.14	Remove Shoring
Sheet 13-	$43,693.13	Set Pumps/Gate
Sheet 14-	$54,358.18	8"/12" RS
Sheet 15-	$17,640.42	16" RS
Sheet 16-	$10,055.13	16" OF
Sheet 17-	$30,962.46	12" AB/3" AC
Sheet 18-	$3,558.37	Startup
Sheet 19-	$5,880.15	Remove Dewatering
Sheet 20-	$5,326.49	Cleanup
Sheet 21-	$136,894.16	Subs
Sheet 22-	$56,197.10	Supervision

$1,044,994

Costs do not included Installation of Bar Screen and Compactor at Influent Pump Station. These costs are listed separately in the Pump Station W Memo.

Gregory Harris

From: Simon Morris <simonmorris@jbiwater.com>
Sent: Friday, July 15, 2022 5:38 PM
To: 'Gregory Harris'
Cc: 'Steve Aiken'; 'Alex Peruski'
Subject: FW: P10945 R1 Discovery Bay,CA -Firm Price Duperon
Attachments: P10945 R1 Discovery Bay CA Scope -FlexRake FPFS.pdf

Good afternoon Gregory,

Please see information below and attached from Duperon. I am on vacation next week so I am copying Steve Aiken and Alex Peruski here, please send any questions back on this thread and between me, Steve and Alex we should be able to address them while I'm out.

I don't know if we meet your price or your timeline expectations. Unfortunately there is not much we can do about either given the requirements of this application. We did discuss at length how to try and avoid the issue of one time engineering costs being spread across only one screen because we already saw that cause the single screen price to be quite high compared to having it defrayed across additional identical units on the first phase. Per Alex's comments though, this second application is not a minor change, it's a new design.

Some of those design differences impact price as well. The narrower screen and smaller wash/comp help but this new screen is nearly twice as long overall which is a lot of extra material at the end of the day. Plus we have significant material cost increases since phase 1. We held the Phase 1 price as steel prices started to climb and they haven't stopped since although they have flattened a little more recently. Steel mill product is up over 80% since Feb 2021 when we provided the Phase 1 pricing and 316 SS specifically is probably more than that. It's only a proportion of our costs but it is significant and other overheads like labour have also increased.

Budget price for the screen and washer/compactor is $380,000. Our bid price would be just under $350,000. **We can get to $324,800 as a discounted price.** This includes freight and field service but excludes taxes.

We do appreciate the opportunity to work with you, Discovery Bay and Anderson and we hope that the proposal and pricing meets with your approval. Please let us know if there is anything else we can do to earn your business.

Have a good weekend.

Cheers

Simon

SIMON MORRIS
JBI Water & Wastewater Equipment
Elk Grove, CA

Cell: 916 642 5500
Email: simonmorris@jbiwater.com
Web: www.jbiwater.com

Simon

DATE: July 15, 2022

Mechanically Cleaned Bar Screen
Firm Proposal Number P10945 R1
Discovery Bay WWTP, CA

To:
Discovery Bay WWTP, CA

Sales Rep:
Simon Morris
JBI Water & Wastewater
916-642-5500
simonmorris@jbiwater.com

From:
Alex Peruski
Sales Project Manager
Duperon Corporation
(989) 754-8800
aperuski@duperon.com

Steve Aiken
Regional Sales Manager
Duperon Corporation
(989) 754-8800
saiken@duperon.com

Thank you for considering Duperon® system solutions for your project. We appreciate the opportunity to provide you with a Budgetary Equipment Scope. Please do not hesitate to contact your Duperon® Team with any questions as we work with you through the design process and ensure a successful project.

Form ES-P19-F07-09 **Printed: 7/15/2022 4:30 PM**

Scope of Supply: Based on information supplied from the RFQ

(1) Mechanical Bar Screen - Stainless Steel Link Driven, Front Cleaning, Front Return

- **Model FlexRake®**
  - **FPFS, Full Penetration Fine Screen –Outdoor Installation**
- Continuous Cleaning without an operator
- Head Sprocket Only Design – no critical components under water
- Continuous Cleaning, top to bottom, the entire width of scraper
- Scrapers of UV Stabilized UHMW and/or Stainless Steel
- SSTL316 side fabrications, dead plate and cross members
- SSTL316 full enclosure covering from deck to discharge
- SSTL316 enclosure access panels
- SSTL316 Name Plates
- SSTL316 Mid Span support structure
- SSTL316 Side shields from top of Steel channel to top of operating deck approx. 13 ft
- Weld Passivation after manufacturing
- Structural Review from a licensed PE with a CA Stamp
- SSTL316 FlexLinks
- ½ HP Motor
- SSTL316 Drive Head:
  - Drive Sprockets and components SSTL316
  - Drive Shaft SSTL316

Dimensions and design criteria

- 2 ft channel width
- 18.95 ft channel height
- 18.95 ft channel invert to top of operating deck
- 3.3 ft assumed discharge clearance
- 27 ft nominal length of FlexLink and scraper system
- Includes SSTL316 fabricated steel channel/custom closeout - (2) Panels 5 ft wide x 5.75 ft tall
- 0.25 inch clear opening
- 0.25 inch x 0.75 inch x 0.13 inch SSTL316L tear drop bar screen
- 2:1 UHMW to SSTL316 scraper ratio
- 10 degree from vertical
- 4 ft of head differential structural design
- 5.5 ft maximum water level

Hydraulic Profile

- See attached models for hydraulic performance information.
  - Peak Flow = 5.0 MGD at maximum 5.5 ft downstream water level @ 25% blinding factor
  - Average Flow = 1.5 MGD with minimum 3.5ft downstream water level @ 25% blinding factor
- **If downstream underflow weir is needed to maintain water level, it shall be provided by others.**
  - A standard minimum downstream water depth of 1.00 ft is required for Flexrake to prevent galling of the moving SSTL parts. Modifications such as a sloped sump or downstream underflow weir may be necessary and is to be provided by others.

Estimated Anchors Needed Mechanical Bar Screen:

Estimated Anchors Needed **included in scope of supply –by Duperon)**

- Anchors
  - Anchors for toes and plates
    - (7) 12 mm (1/2 inch) diameter x 115 mm (4-1/2 inch) long Embeftd HAS Rods w/ Hilti RE-500V3 Safe Set Adhesive System
  - Anchors for Return Guide / Closeout, per screen

1200 Leon Scott Court , Saginaw, MI 48601 P 989.754.2175 TF 800.383.8479 www.duperon.com

- (20) 9.5 mm (3/8 inch) diameter x 85 mm (3-3/8) inch long Embed HAS Rods w/ Hilti RE-500V3 Safe Set Adhesive System
- (3) Epoxy tube
- (1) Dispenser

- Above quantities not guaranteed as accurate, final quantities will be outlined in submittals.
- Some minor field welding will be required at the top of the channel support bar and at the operating deck anchor points

(1) Duperon® Washer Compactor - Dual Auger Unit

- **Model WC3.D1.6**
  - 1HP Motor and gearbox
  - 3.15 ft from operating deck to top of washer compactor hopper rim
  - 2.23 ft long hopper length
  - 1.45 ft wide hopper width
  - SSTL316 material of construction
  - SSTL316 Nameplate
  - Includes Flexible Drop Chute to Dumpster
- Reduced Maintenance
  - Accepts variable debris up to four inches, including rocks, clothing, concrete, metal, grease and septage – eliminating jams and equipment shutdown
  - Positive displacement technology assures that all debris which enters the hopper is washed, compacted, and discharged for disposal
  - Durable dual auger design eliminates debris wrapping
  - Non-clogging flood wash port located prior to compaction housing – ideal for non-potable water
- Reduced Odor
  - Up to 60% dry solids and up to 60% mass/weight reduction – significantly reducing fecal content and odor
- Reduced Landfill Costs
  - Up to 84% volume reduction
  - Self-Regulating Compaction Housing – allows for consistent dry solids output regardless of fluctuations in debris volume
- Reduced Power Consumption
  - 1 HP inverter duty motor consumes just 746 watts
  - Requires .75 KWH

Discharge chute design

- 10.00 ft long discharge chute with, (1) bend
- Non-Clog Flood Washing
- Utilizes filtered effluent or municipal water
- Consumes 3 to 10 gallons per minute at 40 to 60 PSI
- 3.00 inch NPT male drain connection
- 0.50 inch NPT water supply connection

Estimated Anchors Needed for Washer Compactor:

Estimated Anchors Needed **(included in scope of supply –by Duperon):**

- Anchors

  Anchors for toes and plates
  - (4) 12 mm (1/2 inch) diameter x 115 mm (4-1/2 inch) long Embed HAS Rods w/ Hilti RE-500-V3 Adhesive System
- Above quantities not guaranteed as accurate, final quantities will be outlined in submittals.

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(1) Controls Package, Main Panel

- **NOTE: Referencing NFPA 820, the main control panel shall be removed from the equipment/channel by a minimum of 10 feet.**
- Main fusible disconnect for incoming power 480V/60Hz/3Ph
- Wall mount NEMA 4X SSTL316 enclosure
- Enclosure to be:
  - Located outdoors in an unclassified area
  - Not located where temperatures drop below 0°C (32°F) frequently
  - Located where temperatures exceed 40°C (105°F) frequently
- Enclosure to include equipment
  - (1) FlexRake with 1/2HP motor driven by AB PF500 Series VFD with panel mounted keypad
  - (1) Washer Compactor with 1HP motor driven by AB PF500 Series VFD with panel mounted keypad
- PLC Based logic, to include
  - (1) Unitronics PLC with built-in HMI, (human-to-machine interface)
  - Pilot lights, push buttons and selector switches on front door
  - Terminal blocks, ETM's, breakers, and relays where required
  - Hand-Off-Auto selector switch uses PB station in Hand mode
  - Hard contact SCADA Interlock(s) Run, No Fault, Auto, High Level, Remote start
  - Differential level controls with back up cycle timer
  - Adjustable on/off cycle timers
  - Machine runs when differential/upstream level is above setpoint, remote start or run timer is active then it will speed up based on size of differential/upstream level
  - Line reactor
  - HydroRanger 200HMI
- Weather protection devices inside enclosure
  - Heater, thermostat, panel air conditioner

Instrumentation

- (2) Siemens XPS-15F Ultrasonic Level Transducers, (transducers must be installed at least 1.00 foot above the highest anticipated water elevation)

Local to equipment mounted devices

- (2) Three Button NEMA 4/7/9 Enclosure for E-Stop, Jog-Reverse and Forward

Bar Screen Spare Parts

- (1) Drive Clevis Pin
- (10) Snap Rings
- (4) Link Clevis Pins
- (4) Hex Head Cap Screw
- (4) Scraper Nut
- (1) 14 oz Grease Tube
- (1) Snap Ring Tool
- (1) 1 oz. Anti-Seize Lubricant

Washer Compactor Spare Parts

- (2) Upper/Lower Support: Auger
- (2) Side Support: Auger
- (24) FHCS: 0.25-20x1
- (24) 0.25 Flat Washer SAE
- (24) 0.25 Nylock Nut
- (1) AntiSeize Lubricant
- (1) 14 oz. grease tube

On Site Technical Assistance

- (1) Trip(s)
- (1) Technician
- (2) 8 hour man-day(s) total onsite

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- *If additional Technical Service days are required, please add per the rates included in the Clarifications section of this scope of supply.*

Operation and Maintenance Manuals
- 6 Hard Copies

Bar Screen - Warranty
- Two Year material and workmanship
- Five year warranty on all rotating parts (FlexRake only)

Washer Compactor - Warranty
- Five Year material and workmanship

Freight to Jobsite

Price: To be provided

Price is valid for 30 days.

Submittals: 8-10 weeks after approved purchase order, based on workload

Equipment Ship: 22-26 for PLC weeks after approval, based on workload

Clarifications:

General Clarifications
- Scope of supply and pricing above does not include additional structure for seismic, additional head differential or wind conditions
- See Duperon Contractor Installation Guides for guidance in estimating these costs.
- Duperon requires 3 week's advanced notice in writing to schedule field service technician on site.
- Field Services will be provided as outlined in this proposal. Duperon field service rate is $750 per day plus travel and per diem expenses. If field service personnel arrive on site as scheduled and the project is not ready for intended services to be performed, Duperon will invoice for additional days, if required. If the time required is greater than the time listed in this proposal, Duperon will invoice at the above rates.
- The specifications listed are the only specifications which shall apply to this proposal either directly or by reference. Any additional specifications, with equipment or requirements specified therein, that are not specifically included as part of this offer are excluded from this proposal.

Bar Screen Clarifications
- The bar screen will be shipped fully assembled.
- A standard minimum downstream water depth of 1.00 ft is required for Flexrake to prevent galling of the moving SSTL parts. Modifications such as a sloped sump or downstream underflow weir may be necessary and is to be provided by others.
- It is recommended on sites with solid plate/grating across channels; that channel ventilation connection points occur upstream of mechanical screening equipment as necessary to relieve the channel fumes from exhausting fumes only through the equipment enclosure.
- Field assembly of SSTL screen enclosure and side shields required.
- Some minor field welding will be required at the top of the channel support bar and at the operating deck anchor points.
- Crane may be required for unloading.
- Spreader bar may be required for unloading
- Scope of supply and pricing above does not include additional structure for seismic, additional head differential or wind conditions.
- Site to remove concrete at the deck to lengthen the current opening. See site specific drawing details

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Washer Compactor Clarifications

- Some minor field assembly required
- Water supply and discharge piping by others
- Mounting hardware by others

Controls Clarifications

- All conduit and field wiring between the equipment
- Mounting hardware by others

Not Included:

- Anything not specifically stated in this Proposal.
- Bonding, tariffs, permits, taxes, liquidated damages.
- Construction and /or installation work of any kind at the jobsite.
- On-site conditions affecting the work described or which affects the installation.
- Conduit, stands, control mounting wiring, junction boxes, or other accessories.
- Any site work or installation tasks (ie, unloading, placement, dewatering, diving, clearing the forebay, wiring, provision of concrete structure, etc.), equipment (such as cranes, hammer drills, etc.), or anchors.
- Pre-installation tasks such as touch-up painting, checking bolts for tightness, removal of shipping containment devices, etc.
- Engineering: Does not include drawings other than those for the FlexRake.
- Additional structure for seismic or wind conditions.
- Offloading or handling of delivered equipment.
- Union labor for all field support services.
- Controls not specifically listed above.
- Videotaping of the training sessions
- Release of proprietary information.
- Insulation or weather proofing.
- Site/field painting or touch up.
- Vibration and noise testing.
- Anchors by others.
- Discharge system.
- Stilling wells.

Payment Terms:

- 5% Due with placement of order
- 20% Invoiced upon submittal of engineering drawings
- 65% Invoiced at time of shipment
- 10% Invoiced upon successful start up or 60 days after shipment, whichever is less.
- All payments are due Net 30 days
- Based upon review and approval by Duperon credit department.
- No retentions allowed.

Proposal Terms:

- Subject to acceptance by our credit department.
- Provision for retainage is not included in this proposal.
- Pricing is subject to changes based upon time of order and current stainless steel prices.
- Terms may be negotiated upon request

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Right to Refuse:

This proposal is based upon the information available at this time and may be impacted by future specifications, scope, and other requirements. This information may be relied upon and used for project estimating purposes only. Note In the event of cancellation of a purchase order or contract, Duperon Corporation will be compensated for all costs that it or its subcontractors have incurred for performance of work in good faith. Due to the current volatility of the steel market, prices may be impacted at time of order. Please be advised that Duperon Corporation retains the right to revise, withdraw, or negotiate this offer at any time prior to signing a material contract.

Approved for Purchase by:

_____ _____
Signature Date

_____ _____
Printed Name Phone Number

_____
Title

_____

_____

_____
Company Name & Address

Duperon Corporation Terms and Conditions

The Terms and Conditions ("Terms") contained herein shall apply to any and all Equipment sales by Duperon Corporation, Inc ("Duperon Corporation") to Purchasers ("Purchasers"). These Terms apply in lieu of any course of dealing between the parties or usage of trade in the industry. Any changes in the Terms contained herein must specifically be agreed to in writing and signed by Duperon Corporation before becoming binding on either party. The sale and purchase of Equipment described herein shall be governed exclusively by the foregoing and the following Terms:

1. ACCEPTANCE: Any prior Duperon Corporation price quotation or pricing letter is for Purchaser's information only. Duperon Corporation shall only be bound by written confirmation of acceptance of the proposal. All Purchaser orders and agreements are expressly conditioned upon assent to these terms and conditions. Terms additional to or different from those in these terms and conditions are rejected. Duperon Corporation and Purchaser agree that these terms and conditions are accepted in good faith by both parties as the controlling terms and conditions notwithstanding Section 2-207 of the Uniform Commercial Code, as enacted. Duperon Corporation's commencement of performance is not to be construed as acceptance of any of Purchaser's terms or conditions. Duperon Corporation may commence performance in reliance on Purchaser's acceptance of these terms and conditions.
2. SPECIFICATIONS: The proposal or Equipment may not be in strict compliance with the Engineer's/Owner's plans, specifications, or addenda as there may be deviations. The Equipment will meet the mechanical specifications as described by Duperon Corporation.
3. ITEMS INCLUDED: Duperon Corporation's offer includes only the listed Equipment and does not include erection, installation, accessories or associated materials such as controls, piping, etc.
4. PARTIES TO CONTRACT: Duperon Corporation is not a party to or bound by the terms of any other Purchaser contract, agreement, or understanding with third-parties and Duperon Corporation's duties are limited to this proposal with Purchaser to which there are no intended third-party beneficiaries.
5. PRICE AND DELIVERY: All selling prices quoted are subject to change without notice after 30 days from the date of a proposal unless specified otherwise. Unless otherwise stated, all prices are F.O.B. Duperon Corporation or its supplier's shipping points with freight allowed. All claims for damage, delay or shortage shall be made by Purchaser directly against the carrier. When shipments are quoted F.O.B. job site or other designation, Purchaser shall inspect the Equipment shipped, notifying Duperon Corporation of any damage or shortage within forty-eight hours of receipt. Failure to so notify Duperon Corporation shall constitute acceptance by Purchaser, relieving Duperon Corporation of any liability for shipping damages or shortages.
6. PAYMENTS: All invoices are net 30 days. Delinquencies and failure to pay after demand by Duperon Corporation are subject to a 1.5% service charge per month or the maximum permitted by law, whichever is less, on all past due accounts. Pro rata payments are due as shipments are made. If shipments are delayed by the Purchaser, invoices shall be sent on the date when Duperon Corporation is prepared to make shipment and payment shall become due under standard invoicing terms. If the work to be performed hereunder is delayed by the Purchaser, payments shall be based on percentage of completion. Unless specifically stated otherwise, prices quoted are for Equipment only. If at any time the financial condition of the Purchaser gives Duperon Corporation, in its judgment, doubt concerning the Purchaser's ability to pay, Duperon Corporation may require full or partial payment in advance or may suspend any further deliveries or continuance of the work to be performed by Duperon Corporation until such payment has been received or terminate its contract.
7. CREDIT APPLICATION: Purchaser must complete a credit application if it wishes credit terms. The provision of credit is subject to acceptance by Duperon Corporation's Credit Department and its requirements.
8. RETENTIONS: Retentions are not included, unless specifically noted. Purchaser agrees not retain payment or any part of a payment. Failure to make payment in accordance with the agreed upon terms will result in a 1.5% per month service charge.
9. ESCALATION: If shipment is, for any reason, deferred by the Purchaser beyond the contractually agreed upon normal shipment date, or if material price increases (or decreases) are greater than 5% from proposal date to material procurement date, stated prices set forth herein are subject to a shared risk escalation adjustment. Any escalation less than plus or minus 5% shall be absorbed by Duperon Corporation. All escalation (increase or credit) that exceeds 5% shall be passed onto the Purchaser at cost and shall be based upon increases (or decreases) in material costs to Duperon Corporation that occur in the time period between quotation and material procurement by Duperon Corporation. Purchaser agrees to this potential escalation (or credit) regardless of contradicting terms in the contract, except when an agreed upon escalation adder is included in the price.

   (a)The total quoted revised price is based upon changes in the indices as published by third party sources, such as, the United States Department of Labor, Bureau of Labor Statistics. Labor will be related to the Average Hourly Earnings indices found in the Employment and Earnings publication. Material will be related to the Metal and Metal Products Indices published in Wholesale Prices and Price Indices.
   (b)Price revision for items furnished to, and not manufactured by Duperon Corporation, which exceed the above escalation calculation, will be passed along by Duperon Corporation to Purchaser based upon the actual increase in price to Duperon Corporation for the period from the date of quotation to the date of material procurement. Any item that is so revised will be excluded from the index escalation calculations set forth in subparagraph (a) above.

10. BACKCHARGES: Duperon Corporation will not approve or accept back charges for labor, materials, or other costs incurred by Purchaser or others in modification, adjustment, service, or repair of Duperon Corporation furnished materials unless such back charge has been authorized in advance in writing by a Duperon Corporation employee, by a Duperon Corporation purchase order, or work requisition signed by Duperon Corporation
11. APPROVAL: If approval of Equipment submittals by Purchaser or others is required, a condition precedent to Duperon Corporation supplying any Equipment shall be such complete approval.

12. INSTALLATION SUPERVISION: Unless specified, prices quoted for Equipment do not include installation supervision or on-site technical advice. Duperon Corporation recommends and will, upon request, make available, at Duperon Corporation's then current rate, an experienced installation supervisor to act as the Purchaser's agent to supervise installation of the Equipment. Purchaser shall at its sole expense furnish all necessary labor Equipment, and materials needed for installation. Responsibility for proper operation of Equipment, if not installed by Duperon Corporation or installed in accordance with Duperon Corporation's instructions and inspected and accepted in writing by Duperon Corporation, rests entirely with Purchaser; and any work performed by Duperon Corporation personnel in making adjustment or changes must be paid by Purchaser at Duperon Corporation's then current per diem rates plus living and traveling expenses. Duperon Corporation shall not be responsible for results in connection with the installation of the Equipment or technical advice not provided or furnished by Duperon Corporation.

13. ACCEPTANCE OF PRODUCTS: Products will be deemed accepted without any claim by Purchaser unless written notice of nonacceptance is received by Duperon Corporation within 30 days of delivery if shipped F.O.B. point of shipment, or 48 hours of delivery if shipped F.O.B. point of destination. Such written notice shall not be considered received by Duperon Corporation unless it is accompanied by all freight bills for said shipment, with Purchaser's notations as to damages, shortages and conditions of Equipment, containers, and seals. Non-accepted products are subject to the return policy stated below.

14. TAXES: Any federal, state, or local sales, use or other taxes applicable to this transaction, unless specifically included in the price, shall be the responsibility of Purchaser.

15. TITLE: The Equipment shall, regardless of the manner in which affixed to or used in connection with realty, remain the sole and personal property of Duperon Corporation until the full purchase price has been paid. Purchaser agrees to do all things necessary to protect and maintain Duperon Corporation's title and interest in and to such Equipment; and upon Purchaser's default, at Duperon Corporation's option, Duperon Corporation may retain as liquidated damages any and all partial payments made and shall be free to enter the premises where such Equipment is located and remove the same as its property without prejudice to any further claims on account of damages or loss which Duperon Corporation may suffer from any cause.

16. INSURANCE: From date of shipment until the invoice is paid in full, Purchaser agrees to provide and maintain at its expense, but for Duperon Corporation's benefit, adequate insurance including, but not limited to, builders risk insurance on the Equipment against any loss of any nature whatsoever. Purchaser shall provide proof of said coverage prior to shipment.

17. SHIPMENTS: Any estimated delivery dates represent Duperon Corporation's best estimate. No liability, direct or indirect, is assumed by Duperon Corporation for failure to ship or deliver on such dates. Duperon Corporation shall have the right to make partial shipments; and invoices covering the same shall be due and payable by Purchaser in accordance with the payment terms thereof. If Purchaser defaults in any payment when due hereunder, Duperon Corporation may, without incurring any liability therefore to Purchaser or Purchaser's customers, declare all payments immediately due and payable with maximum legal interest thereon from due date of said payment, and at its option, stop all further work and shipments until all past due payments have been made, and/or require that any further deliveries be paid for prior to shipment. If Purchaser requests postponements of shipments, the purchase price shall be due and payable upon notice from Duperon Corporation that the Equipment is ready for shipment; and thereafter any storage or other charge Duperon Corporation incurs on account of the Equipment shall be added to Purchaser's account. If delivery is specified at a point other than Duperon Corporation or its supplier's shipping points, and delivery is postponed or prevented by strike, accident, embargo, or other cause beyond Duperon Corporation's reasonable control and occurring at a location other than Duperon Corporation or its supplier's shipping points, Duperon Corporation assumes no liability for delivery delay. If Purchaser refuses such delivery, Duperon Corporation may store the Equipment at Purchaser's expense. For all purposes of this agreement such tender of delivery or storage shall constitute delivery.

18. WARRANTY: DUPERON CORPORATION WARRANTS EQUIPMENT IT SUPPLIES ONLY IN ACCORDANCE WITH THE WARRANTY EXPRESSED IN THE ATTACHED COPY OF "DUPERON WARRANTY" AGAINST DEFECTS IN WORKMANSHIP AND MATERIALS WHICH IS MADE A PART HEREOF. SUCH WARRANTY IN LIEU OF ALL OTHER WARRANTIES, INCLUDING WARRANTIES OF MERCHANTABILITY AND FITNESS FOR PARTICULAR PURPOSE, WHETHER WRITTEN, ORAL, EXPRESSED, IMPLIED OR STATUTORY, DUPERON CORPORATION SHALL NOT BE LIABLE ANY CONTINGENT, INCIDENTAL, OR CONSEQUENTIAL DAMAGES FOR ANY REASON WHATSOEVER. THE PARTIES AGREE AND STIPULATE THAT AN EXPRESS WARRANTY PROVIDED TO PURCHASER IN WRITING IS THE SOLE WARRANTY REGARDING THE PRODUCT AND ANY SERVICE PROVIDED BY DUPERON CORPORATION. THE PARTIES SPECIFICALLY AGREE AND STIPULATE THAT THERE IS NO OTHER WARRANTY OF ANY TYPE WHATSOEVER, INCLUDING BUT NOT LIMITED TO CONSUMER WARRANTIES, WARRANTY OF FITNESS FOR PARTICULAR PURPOSE, WARRANTY OF MERCHANTABILITY, AND DUPERON CORPORATION IS NOT LIABLE FOR ANY SPECIAL, CONSEQUENTIAL, OR ANY OTHER DAMAGES, EXCEPT AS SET FORTH IN THESE TERMS AND THE EXPRESS WARRANTY. THERE ARE NO WARRANTIES WHICH EXTEND BEYOND THE FACE OF THE EXPRESS WARRANTY.

19. PATENTS: Duperon Corporation agrees that it will, at its own expense, defend all suits or proceedings instituted against Purchaser and pay any award of damages assessed against it in such suits or proceedings, so far as the same are based on any claim that the said Equipment or any part thereof constitutes an infringement of any apparatus patent of the United States issued at the date of this Agreement provided Duperon Corporation is given prompt notice in writing of the institution or threatened institution of any suit or proceeding and is given full control of the defense, settlement, or compromise of any such action; and Purchaser agrees to give Duperon Corporation needed information, assistance, and authority to enable Duperon Corporation so to do. In the event said Equipment is held or conceded to infringe such a patent, Duperon Corporation shall have the right at its sole option and expense to a) modify the Equipment to be non-infringing, b) obtain for Purchaser the license to continue using said Equipment, or c) accept return of the Equipment and refund to the Purchaser the purchase price thereof less a reasonable charge for the use thereof. Duperon Corporation will reimburse Purchaser for actual out-of-pocket expenses, exclusive of legal fees, incurred in preparing such information and rendering such assistance at Duperon Corporation's request. The foregoing states the entire liability of Duperon Corporation, with respect to patent infringement; and except as otherwise agreed to in writing, Duperon Corporation assumes no responsibility for process patent infringement.

20. CANCELLATION, SUSPENSION, OR DELAY: After acceptance by Duperon Corporation, the proposal, or Purchaser's order based on the proposal, shall be a firm agreement and is not subject to cancellation, suspension, or delay except upon payment by Purchaser of appropriate charges which shall include all costs incurred by Duperon Corporation to date of cancellation, suspension, or delay plus a reasonable profit. Additionally, all charges related to storage and/or resumption of work, at Duperon Corporation's plant or elsewhere, shall be added to Purchaser's sole account. If Duperon Corporation stores Purchaser's product upon request, Purchaser agrees to be invoiced, and pay, as if the product shipped according to schedule and all risks incidental to storage shall be assumed by Purchaser. Duperon Corporation shall have the right to cancel any order or proposal without notice to Purchaser in the event that Purchaser becomes insolvent, adjudicated bankrupt, petitions for or consents to any relief under any bankruptcy reorganization statute, or becomes unable to meet its financial obligations in the normal course of business.

21. RETURN OF PRODUCTS: No products may be returned to Duperon Corporation without Duperon Corporation's prior written permission. Said permission may be withheld by Duperon Corporation at its sole discretion.

22. EXTENDED STORAGE: Extended storage instructions will be part of the information provided at shipment. If Equipment installation and start-up is delayed more than 30 days, the storage instructions must be followed to keep WARRANTY in force.

23. INDEMNIFICATION AND HOLD HARMLESS: Duperon Corporation and Purchaser agree to hold harmless the other party from any and all liabilities, damages, losses, claims, demands, payments, actions, fees, or judgments arising out of or resulting from injury to or death of any and all persons or from damage to or loss of property (or loss of use thereof) arising out of the sale, use, maintenance, and/or delivery of Equipment provided such liabilities, damages, losses, claims, demands, payments, actions, fees, or judgments are caused by actual, or claimed, negligence or breach of warranty and do not arise from any warranty not approved or from any sales for a purpose not authorized, nor liabilities, damages, losses, claims, demands, payments, actions, fees, or judgments caused in part by Purchaser's negligence or willful misconduct. Purchaser agrees to indemnify Duperon Corporation from all costs incurred, including but not limited to court costs and reasonable attorney fees, from enforcing any provisions of this contract, including but not limited to breach of contract or costs incurred in collecting monies owed on this contract.

24. LIMITATION OF REMEDIES: Duperon Corporation's liability shall be limited to the obligation to repair or replace only those portions or parts of Equipment proven to have failed to meet in material respect the mechanical specifications as described by Duperon Corporation or for defects in workmanship or materials as described in the Duperon Corporation Warranty in Section 18. Duperon Corporation's cumulative liability in any way arising from or pertaining to any Equipment sold to Purchaser shall not in any case exceed the purchase price paid by Purchaser for said Equipment. IN NO EVENT SHALL PURCHASER HAVE ANY LIABILITY FOR COMMERCIAL LOSS, CLAIMS FOR LABOR, CLAIMS BASED ON DELAY, OR ANY CONTINGENT, CONSEQUENTIAL, OR INCIDENTAL DAMAGES OF ANY TYPE, WHETHER PURCHASERS' CLAIM BE BASED IN CONTRACT, TORT, WARRANTY, EQUITY, STRICT LIAIBLITY, OR OTHERWISE. IT IS EXPRESSLY AGREED THAT PURCHASER'S REMEDIES EXPRESSED IN THIS PARAGRAPH ARE PURCHASER'S SOLE AND EXCLUSIVE REMEDIES AT LAW OR IN EQUITY.

25. FORCE MAJEURE: Neither party shall be considered in default hereunder or be liable for any failure to perform or delay in performing any provisions of this Agreement in the customary manner to the extent that such failure or delay shall be caused by any reason beyond its control, including an act of God; fire, explosions, hostilities or war (declared or undeclared, striking or work stoppage involving either party's employees or governmental restrictions, provided that the party declaring force majeure shall give notice to the other party promptly and in writing of the commencement of the condition, the nature, and the termination of the force majeure condition. The party whose performance has been interrupted by such circumstances shall use every reasonable means to resume full performance of these Terms as promptly as possible.

26. ENTIRE AGREEMENT: This proposal expresses the entire agreement between the parties hereto superseding any prior understandings, either written or oral, and is not subject to modification except by a writing signed by an authorized officer of each party. Any terms and conditions of any purchase order or other offer issued by Purchaser in connection with the subject matter of Duperon Corporation's proposal, which are in addition to or inconsistent with these terms and conditions, will not be binding on Duperon Corporation in any manner whatsoever unless accepted by Duperon Corporation in writing.

27. APPLICABLE LAW AND ARBITRATION: This contract shall be governed by, and construed and enforced in accordance with, the laws of the State of Michigan. Any controversy or claim arising out of or relating to the performance of any contract resulting from the Equipment, the proposal, or the breach thereof, shall be settled by binding arbitration filed in Saginaw County, Michigan, in accordance with the Arbitration Rules of the American Arbitration Association and the parties agree to irrevocable personal jurisdiction in Michigan. Judgment upon the award rendered by the arbitrator(s) may be entered to any court having jurisdiction.

28. NOTICES: Unless otherwise stated, Purchaser shall deliver notices in writing via certified mail or reputable overnight courier (postage prepaid) to: Duperon Corporation, 1200 Leon Scott Court, Saginaw, MI 48601. Notices delivered in this manner become effective upon Duperon Corporation's actual receipt. Duperon Corporation's notices to Purchaser may be delivered via email, facsimile, ordinary or certified mail, reputable overnight courier, or invoice and are effective when sent.

29. MISCELLANEOUS: Titles and/or headings in these Terms are inserted for convenience only and are not intended to affect the interpretation or construction of the Terms. Whenever possible, each provision of this Contract shall be interpreted in such a way as to be effective and valid under applicable law. If any provision is prohibited by or invalid under applicable law, it will be ineffective only to the extent of such prohibition or invalidity, without invalidating the remainder of such provision or the remaining provisions of the Terms. The parties agree that time is of the essence. No assignment of any right or obligation under this Contract shall be made by either party without the prior consent of both parties and all others are void. Failure or inability of either party to enforce any right hereunder shall not waive any right in respect to any other or future rights or occurrences. The parties deem that this Agreement was executed and to be fully performed in Saginaw, Michigan.

DUPERON

Custom Application Table

Bar Screen Headloss & Channel Hydraulics

IMPERIAL (English) UNITS

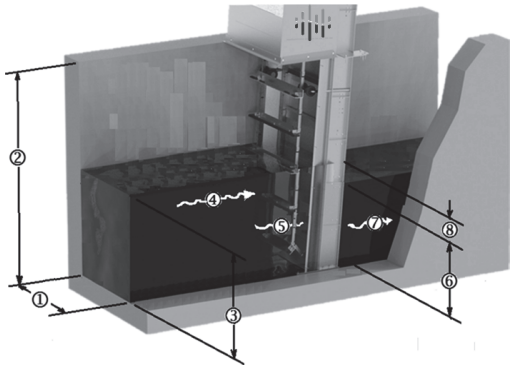
Date: 7/15/2022

Project: Discovery Bay

DC #: P10945

Notes: Max Water level - 5.5 ft
Min water level - 3.5 ft

5 MGD Peak Flow
1.5 MGD Average flow



				①		②						③	④	⑤	⑥	⑦	⑧	
Case No.	Prod. Model	Flow Rate (MGD)	Opening Between Bars (in.)	Channel Width (ft.)	Unit Width (ft.)	Channel Depth (ft.)	Percent Blinding (%)	Bar thick-ness (in.)	Side Close-outs (ft.)	Base Plate Height (ft.)	Flow Coeff. ($1/C^2$)	Upstr. Water Level (ft.)	Upstr. Velocity (fps)	Slot Velocity (fps)	Downstr. Water Level (ft.)	Downstr. Velocity (fps)	Head Loss (in.)	Comments
1	FPFS	5.00	0.25	2.00	2.00	18.95	25%	0.25	0.58	0.23	0.99	5.60	0.69	2.61	5.50	0.70	1.17	
2	FPFS	1.50	0.25	2.00	2.00	18.95	25%	0.25	0.58	0.23	0.99	3.52	0.33	1.25	3.50	0.33	0.27	

Duperon requires a minimum of 1.00 ft water depth when the unit is in operation to keep the SSTL FlexLinks lubricated and ensure an optimal amount of screening area. This does not apply to LowFlow, FR IQ, and GTS units.

Head loss is calculated using Bernoulli equation: $HL=(1/C^2)*(V^2-v^2)/(2g)$. Flow coefficient ($1/C^2$)=1.43 should be used for general applications (FP,HD,SCT,FRIQ≥.62). ($1/C^2$)=.99 is used for teardrop bars (LF,FPFS, FPFS-M, FRIQ≤.5, GTS). ‡

At design average flow conditions, approach velocities should be no less than 1.25 fps, to prevent settling. ‡‡

Satisfactory designs have provided for velocities of 2 to 4 fps through the openings of mechanically cleaned screens.‡‡‡

References: ‡Hydraulic Similarity of Headloss Predictions (WEF abstract) 2010, L.Botero, M.Woodley. ‡‡Recommended Standards for Wastewater Facilites (10 States), 61.122 (2014). ‡‡‡WEF MOP 8 5th ed. 2010.

Duperon Corporation | 1200 Leon Scott Court | Saginaw, MI 48601 | P 989.754.8800 | F 989.754.2175 | TF 800.383.8479 | www.duperon.com | | V.2021.10

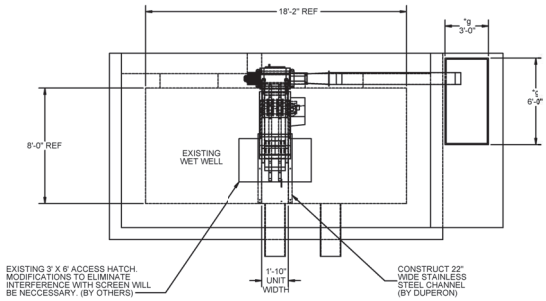
NOTE #1

VERIFY THAT THE PROPOSED INSTALLATION IS SUITED TO THE SITE.

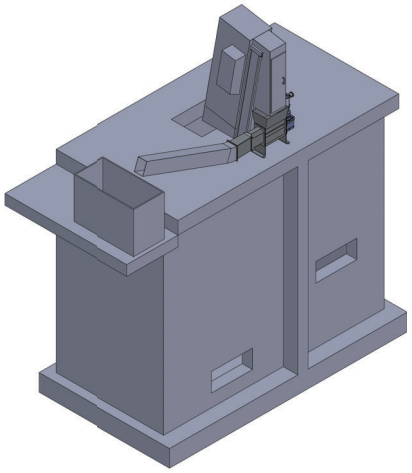
a. VERIFY CHANNEL WIDTH DIMENSION.
b. VERIFY MOTOR LOCATION.
c. VERIFY CHANNEL HEIGHT. (2) PLACES
d. VERIFY CHANNEL LENGTH AND DECK OPENING. (2) PLACES
e. VERIFY MINIMUM DOWN STREAM WATER LEVEL.
f. VERIFY MAXIMUM WATER HEIGHT.
g. VERIFY DEBRIS BIN HEIGHT AND LOCATIONS. (4) PLACES

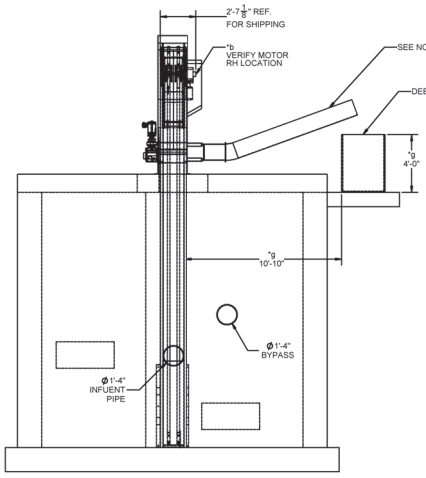
NOTE #2

1. BARSCREEN AND SCRAPERS NOT SHOWN FOR CLARITY.
2. SITE DIMENSIONS ARE SUBJECT TO CHANGE UPON SITE VERIFICATIONS.
3. FRONT AND REAR ENCLOSURE INCLUDED ABOVE OPERATING DECK. STAINLESS STEEL SIDE SHIELDS ARE INCLUDED FROM TOP OF CHANNEL TO OPERATING DECK TO PREVENT DEBRIS CARRYOVER.
4. DECK SUPPORT ACCESSORIES ARE INCLUDED TO SPAN CHANNEL FOR SUPPORT/ANCHORAGE.
5. PLATE/GRATING AND HANDRAIL MODIFICATIONS AS REQUIRED (BY OTHERS).
6. FOR SITES w/ FREEZING CONDITIONS A DEAD PLATE HEAT PAD; SLUICE AND WC HEAT TRACE/WRAP ACCESSORIES ARE RECOMMENDED. NOT INCLUDED AT THIS TIME.
7. WASHER COMPACTOR CHUTE ROUTING SHOWN IS CONCEPTUAL. CHUTE ROUTING AND SUPPORT DETAILS (NOT SHOWN) WILL CHANGE BASED ON FINAL DESIGN AT TIME OF SUBMITTALS. FLOOR STAND SUPPORTS SHALL BE PROVIDED, AS REQUIRED, BY DUPERON. CEILING HANGER SUPPORTS SHALL BE SUPPLIED, AS REQUIRED, BY OTHERS.

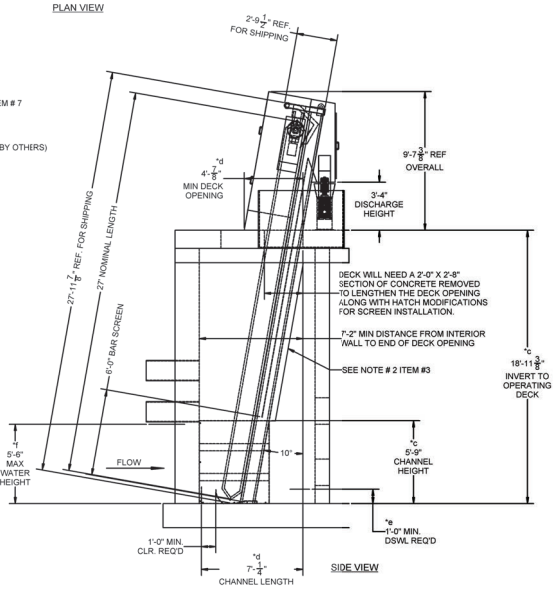


PLAN VIEW





FRONT VIEW



SIDE VIEW

REVISIONS				
REV.	DESCRIPTION	DATE	REVISED	APPROVED

PROPOSAL

DRAWN: DD	DATE: 7/15/22
CHECKED: DD	DATE: 7/15/22
APPROVED: AP	DATE: 7/15/22

CONCEPTUAL
THIS PROPOSAL DRAWING IS BASED UPON THEINFORMATION AVAILABLE AT THE TIME ANDMAY BE AFFECTED BY FUTURE SPECIFICATION, SCOPE, AND OTHER REQUIREMENTS. PLEASE BE ADVISED THAT DUPERON CORPORATION RETAINS THE RIGHT TO REFUSE, WITHDRAW, OR NEGOTIATE THIS PROPOSAL AT ANY TIME PRIMI TO SIGNING MATERIAL CONTRACT

DUPERON
Saginaw, Michigan 48601
P: 800.383.8479

EQUIPMENT TYPE
DUPERON CORPORATION
Flex Rake® FPFS
SITE NAME
DISCOVERY BAY #1
WWTP CA

SIZE	DRAWING NUMBER	REVISION
D	P10945	0
SCALE: 1:40		SHEET: 1 OF 1

C:_DUPERON\PROPOSAL\BP10000-P10999\P10945 (1) FPFS (1) WCP10945 FP FPFS Sales Model

DUPERON®

PRELIMINARY LIQUID/SOLIDS SEPARATION

DUPERON®

FLEXRAKE® FP PLATFORM

THRU-BAR™ TECHNOLOGY

The FlexRake FP platform is engineered to be the first line of defense to maintain process treatment integrity. It is a proven workhorse that just keeps running, easily managing a wide range of flow and debris variations, reliably and without shutdown. The FlexRake combines mechanical simplicity, long product life and set the standard for adaptability.

THE DUPERON DIFFERENCE

FLEXIBLE DESIGN

- *Adapts to a range of unpredictable flow and debris conditions without operator intervention*

PROCESS RESILIENCE

- *Effective fine solids removal through a broad range of flow and debris conditions so downstream assets remain protected*

RELIABLE OPERATION

- *The FlexRake adapts to handle grease, grit, first flushes, rags, large or unusual debris (2x4s, bricks or sewer plugs) without shutdown or operator intervention*

LOW COST OF OWNERSHIP

- *With few parts and minimal maintenance required, Duperon equipment is easy to install, own, and operate*

NO IN-CHANNEL MAINTENANCE

- *Eliminates the need for confined space entries to manage routine maintenance and jamming*

CUSTOMIZABLE

- *Engineered to fit the unique needs of your site*

1200 Leon Scott Court, Saginaw, MI 48601 F 989.754.2175 TF 800.383.8479 www.duperon.com

DUPERON®

FLEXRAKE® FP

PLATFORM

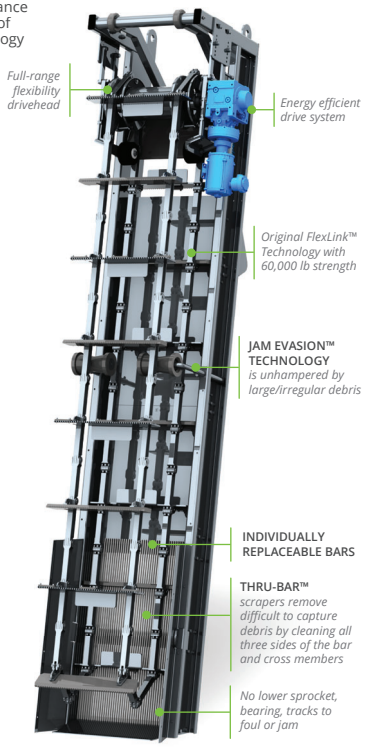
ADAPTIVE TECHNOLOGY

The FlexRake FP platform is specifically engineered for difficult-to-capture debris, making it ideal for wastewater and industrial applications. Backed by proven performance in over 1800 installations and 25+ years of application experience, FlexRake technology offers effective preliminary treatment to ensure downstream process integrity.

PROVEN STANDARD OF

SIMPLICITY

In 1995, Duperon invented the FlexRake and transformed the water and wastewater industry



HOW THE FLEXRAKE WORKS

1

The FlexLink™ articulates to a 90 degree angle, closing on the drive pin. Once closed, the sprocket drives the link system forward.

2

As it leaves the drive sprocket, the FlexLink™ locks into a solid bar, forming its own frame.

3

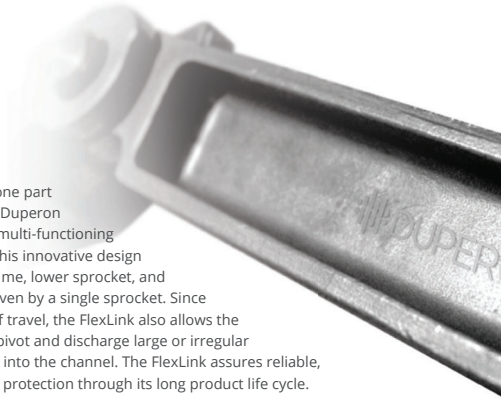
The FlexLink™ forms its own rotating framework at the bottom of the channel.

4

Industry-leading Thru-Bar scrapers engage into the bar screen, cleaning all 3 sides of the bar and the horizontal cross member.

DUPERON®

FLEXLINK™



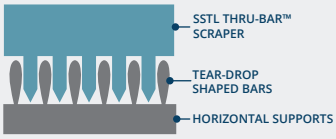
The achievement of mechanical simplicity requires the design of one part doing more. The simplicity of the Duperon FlexRake is possible through the multi-functioning action of one part: the FlexLink. This innovative design allows the link to function as a frame, lower sprocket, and connection point for scrapers, driven by a single sprocket. Since it is not trapped by a fixed path of travel, the FlexLink also allows the entire raking mechanism to flex, pivot and discharge large or irregular shaped debris that makes its way into the channel. The FlexLink assures reliable, adaptable, and trouble-free plant protection through its long product life cycle.

DUPERON'S SOLUTION TO:

- Lower sprockets
- Bearings
- Tracks
- Fouling
- Lubrication points
- Confined space entries
- Jamming
- High maintenance

FLEXRAKE® FPFS

¼ in, ⅜ in, ½ in bar opening

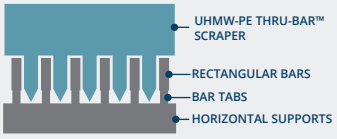


SUPERIOR PERFORMANCE

High capture rate and efficient hydrodynamics allow for more favorable flow conditions and less headloss

FLEXRAKE® FP

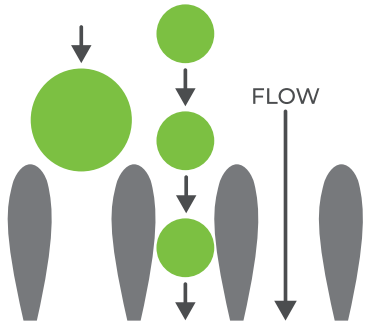
⅝ in or greater bar opening



DUPERON

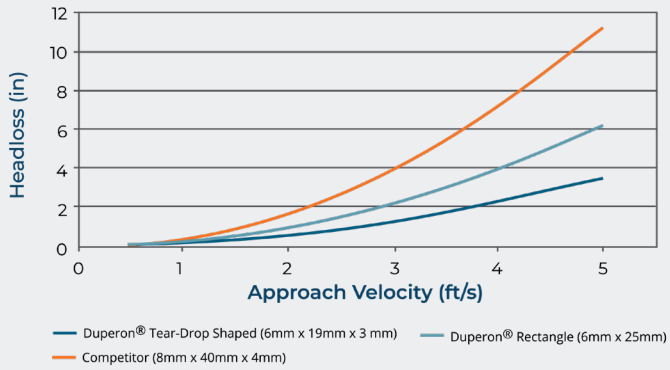
FLEXRAKE® FPFS
TEAR-DROP SHAPED BARS

Due to the tear-drop bar shape, large items are captured at the face of the bar screen to be removed by a scraper. Smaller debris passes through without getting lodged between bars.



THE MOST EFFICIENT BARS IN THE INDUSTRY

Tear-Drop Shaped Bars vs. Other Type Bars



Tear-drop shaped bars translate to less headloss, less energy loss (for pumps), and decreased slot velocities for improved capture

PRODUCT DATA	FLEXRAKE® FP	FLEXRAKE® FPFS
BAR OPENINGS	*⅝ in - 4 in*	*¼ in, ⅜ in and ½ in*
BAR SHAPE	*Rectangular bar*	*Tear-drop shaped bar*
SCRAPER CONFIGURATION	*UHMW-PE Thru-Bar™*	*SSTL Thru-Bar™ and UHMW-PE staging scrapers*
UNIT WIDTH	*2 ft to 12 ft, single strand unit available 18 in to 24 in*	
UNIT LENGTH	*10 ft to 100 ft*	
MATERIAL OF CONSTRUCTION	*Available in 304 or 316 SSTL*	
FLOW CAPACITY	*Designed to your site*	
CLEANING FREQUENCY	*1 discharge per minute on low, 4 discharges per minute on high*	
LIFTING CAPACITY	*1,000 lbs, 3,000 lbs option available*	
ANGLE OF INSTALLATION	*Vertical to 45 degrees, dependent upon site*	
TYPICAL MOTOR	*½ hp inverter duty, explosion proof*	
STANDARD CONTROLS	*Packages range from simple start/stop to sophisticated automation. Motor overload protection provided*	
OPERATION OPTIONS	*Continuous/manual, automatic with timer, float, SCADA, differential/high-level sensing options with I/O as needed*	
APPLICATIONS	• *Preliminary treatment* • *Headworks* • *Pump/lift stations* • *Combined sewer overflows*	• *Pulp & paper mills* • *Food & beverage* • *Raw water intakes* • *Prisons*

DUPERON®

MK-P01-F03-00
Printed: 08-13-2021

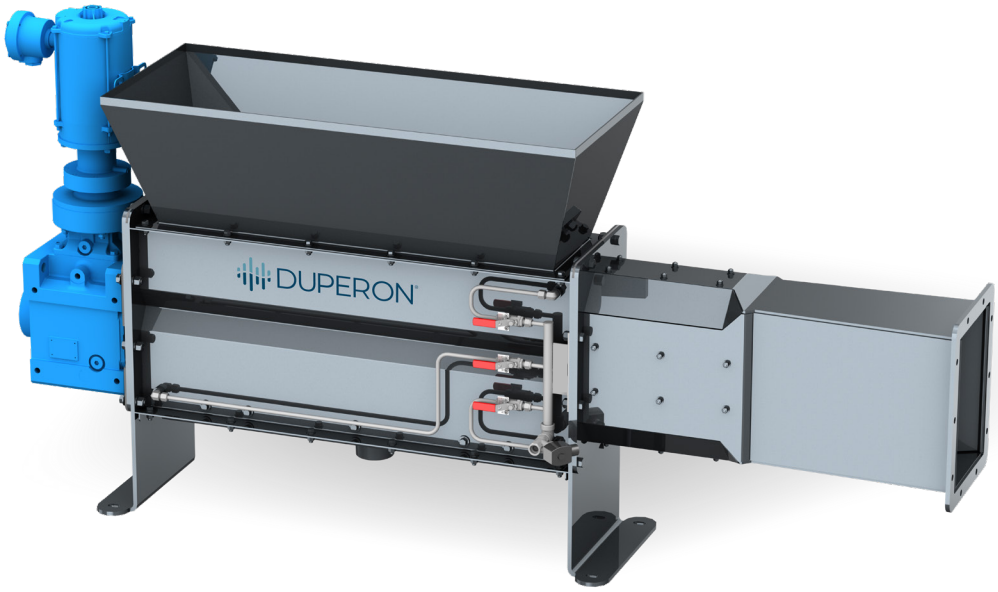
DUPERON®

DEBRIS MANAGEMENT

DUPERON® WASHER COMPACTOR

DUAL AUGER UNIT

Washer compactors automate the solids handling process efficiently and provide a bottom-line impact to meet hauler requirements and reduce landfill volume. The Duperon Washer Compactor is a patented, dual auger unit, specifically designed to handle the debris variations that a FlexRake® could potentially discharge. It combines mechanical simplicity and strength to achieve reliable performance and lower disposal costs.



THE DUPERON DIFFERENCE

WHAT GOES IN, COMES OUT

- *Positive displacement from patented dual augers processes debris forward, prevents slipping, wrapping, clinging, and bridging*

CONSISTENT COMPACTION

- *The self-regulating compaction zone delivers consistent dry solids, regardless of debris or volume*

FLEXIBLE DISCHARGE

- *The Discharge Extension Option transports compacted screenings up to 40 ft in any direction without additional mechanized conveyance*

HIGH PERFORMANCE TO IMPACT BOTTOM-LINE

- *Reliably provides up to 84% volume reduction and 60% dry solids to minimize odor, meet hauler standards, and reduce landfill costs*

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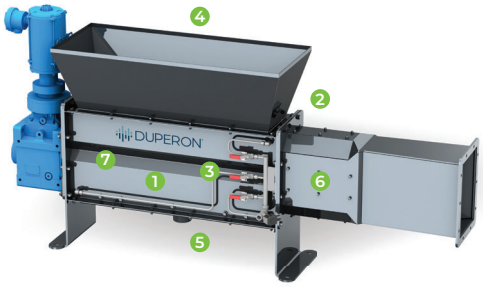
DUPERON

WASHER COMPACTOR
FEATURES



7

POSITIVE DISPLACEMENT

Counter-rotating patented dual augers process debris forward, preventing slipping, wrapping, clinging and bridging

1 **HOUSING GEOMETRY**

Controls potential for "slip flow" when processing grease, septage and other similar debris

2 **NON-BATCHING**

Continuous flow

3 **SELF-CLEANING STRAINER**

Eliminating brushes and relieves clogging

4 **DESIGNED FOR DUTY**

Designed to process debris variations that a FlexRake® could occasionally discharge, like rocks, grease, clothing, concrete and metal up to 4 inches

5 **NON-CLOGGING FLOOD WASH PORT**

Ideal for non-potable water

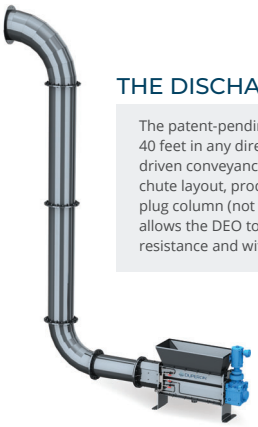
6 **NO FIXED REDUCTION COMPACTION**

A proprietary self-regulating compaction zone controls pressure, regardless of volume for consistent dry solids

HOW IT WORKS

The Duperon® Washer Compactor is a powerful system that uses self-cleaning dual augers in a counter rotation to prevent wrapping and to help separate organic and inorganic materials. The dual augers use positive displacement, to continuously move debris forward for cleaning, compaction, and discharge. Flood washing ports clean screenings and return organics back to the channel. A proprietary self-regulating compaction zone provides consistent pressure, regardless of volume and debris composition.

Unlike other technologies, the Duperon Washer Compactor typically compresses debris before it enters the discharge chute, so it does not rely on fixed reduction compaction (using the friction of screenings in the chute to compact). The internally controlled compaction allows Duperon equipment to push a plug column with little to no resistance to extended locations. The captured solids are delivered in an enclosed chute to the desired discharge point, with minimal odor and vector-free.



THE DISCHARGE EXTENSION OPTION

The patent-pending Discharge Extension Option (DEO) can transport debris up to 40 feet in any direction, even vertically, eliminating the need for additional motor-driven conveyance systems. The dual augers, combined with the geometry of the chute layout, produce backpressure. This backpressure allows the weight of the plug column (not friction from the chute) to dewater and compact debris. This allows the DEO to easily transport compacted screenings long distances, without resistance and without requiring the augers to extend to the discharge point.

THE DEO PROVIDES SIGNIFICANT COST SAVINGS BY:

- *Reducing the length of the bar screen extending multiple levels*
- *Eliminating additional conveyance, motors and associated maintenance*
- *Eliminating manual labor and debris handling of captured screenings*

WASHER COMPACTOR
DISCHARGE CHUTE ACCESSORIES

HEAT BLANKET:
The Washer Compactor hopper, compaction zone and discharge chute can be thermally protected from cold temperatures with the addition of the Heat Blanket with integral heat trace.

BAGGER:
The Bagger System attaches to the discharge chute for applications where bag dispensing and odor control are required. Included is a 90 meter length of continuous feed bags.

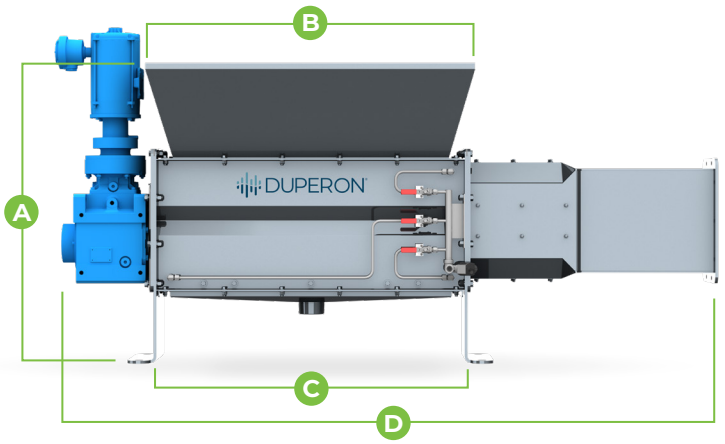
DROP SLEEVE:
This flexible Drop Sleeve is an economical way to direct and contain downward debris discharge. Also used where waste container hauling may cause damage to metal discharge chutes.

CASTER ASSEMBLY:
Optional casters allow for flexible placement of the Washer Compactor and simple movement of the unit.

HOPPER LEVEL SENSOR:
Used in applications where a sluice discharges into the washer compactor. If the float trips, sluice water will turn off to avoid the hopper overflowing.

HOPPER BYPASS:
A 6 inch bypass plumbed with Fernco stye fittings to avoid hopper overflowing, drains excess debris back into the channel in front of the bar screen to be re-captured.

	BODY SIZE 1	BODY SIZE 2	BODY SIZE 3
A Typical hopper height (in)	38	38	38
B Hopper length (in)	27	43	67
C Distance between washer compactor legs (in)	24	40	64
D Overall length (in)	69	85	109



PRODUCT DATA

SIZING	*3 sizes to accomadate site flow and capacities*
WATER	• *Utilizes filtered effluent or municipal water* • *Washer consumes 3-10 GPM* • *Requires 40 psi-60 psi* • *Drain connection 3 in NPT* • *Supply connection 1/2 in NPT*
UTILITY	*120/240 volt, 1 PH* *240/480 volt, 3 PH (0.6 kW/2.3 kW/3.8kW)*
DRIVE	*1 hp, 3 hp, 5 hp inverter duty motors available*
MATERIAL OF CONSTRUCTION	*304 SSTL or 316 SSTL, SSTL spur gears (17 - 4 PH)* *Self-lubricating main auger bearings*
BAR SCREEN FLOWS	*Flows up to 100 MGD** **flow values are based on MOP8 values through a ¼ inch bar screen*
PEAK CAPACITY	*Available from: 30 cu ft/hr - 150 cu ft/hr*
TYPICAL PERFORMANCE	*Up to:* *30% - 60% dry solids* *60% - 70% weight reduction* *Significantly decreases odor and fecal content*
STANDARD CONTROLS	*Packages range from simple start/stop to sophisticated automation* *Motor overload protection provided*
OPERATION OPTIONS	*Continuous while screen is running with off-delay capability to clear hopper*
APPLICATIONS	• *Municipal wastewater* • *Combined sewer overflow* • *Pump stations* • *Lift stations* • *Industrial wastewater* • *Other non-standard applications where debris is variable or difficult*

MK-P01-F04-01
Printed: 08-23-2021

Please see the attached Firm Proposal package for the P10945 R1 Discovery Bay, CA project. It includes a firm proposal, hydraulic calculations, and information sheets about the products being provided. I've attached the Firm scope and pricing sheet above. The full 2D and 3D drawings can be found in the link below.

P10945 Discovery Bay CA

Please note some of the details about the quote below.

- Includes 1 FPFS screen approximately 2ft x 27ft with ¼" openings for a 10 degree from vertical installation.
  - Primarily constructed of 316SSTL
  - Duperon to supply the stainless channel – it will consist of (2) Panels 5 ft wide x 5.75 ft tall
  - Includes 316SSTL side shields that extend from the top of the steel channel to the operating deck (approx 13ft)
  - Includes Weld Passivation after manufacturing
  - Screen includes extended warranty - 2 yrs material and workmanship & 5 yr warranty on all rotating parts
  - The site will have to remove concrete at the deck to lengthen the current opening. See site specific drawing for finer details
- Inlcudes 1 Duperon Washer Compactor – 1 HP
  - Primarily constructed of 316SSTL
  - Includes flexible drop chute
  - Includes Weld Passivations
  - Washer Compactor includes extended warranty- 5year warranty on material and workmanship
- Includes PLC based controls with Dual ultrasonic transducers, AC Unit, Heater & Thermostat
- Includes PE stamp and Seismic review for barscreen
- Anchors are being supplied by Duperon

Additionally, we did review the previous screens that were provided to the site to see what cost we could omit on this proposal. Unfortunately, dimensionally this screens is quite a bit different than the screens we previously provided so there wasn't much engineering cost that could be omitted. Had these been the same dimensions as the previous we could have cleared much of the engineering cost associated with the equipment. If you have any additional questions or concerns please don't hesitate to reach out to us.

Enjoy your vacation next week.

Thanks Simon

Alex Peruski
Sales Project Manager
Duperon Corporation | 1200 Leon Scott Court | Saginaw, MI 48601 | TF 800.383.8479 | P 989.295.7063
Website | Facebook | LinkedIn | Twitter | YouTube

DUPERON

---------- Forwarded message ---------
From: **Gregory Harris** <gharris@herwit.com>
Date: Fri, Jul 8, 2022, 4:06 PM
Subject: New bar screen for discovery bay
To: Simon Morris <simonmorris@jbiwater.com>

Simon,

I left you a message earlier. We are interested in purchasing a new bar screen and washer compactor for the influent pump station at Discovery Bay. We need a single bare screen and compactor. We would want every thing the same as the last two screens and compactor you just delivered but for a taller screen and the control panel set up for only 1 screen and washer compactor.

5 mgd flow

316 SS construction

The Town is ready to move immediately with Anderson to install this screen provided the cost is within reason and budget.

Please provide a firm budget cost by 7/15. We have a short window to get board approval and get the project put together while Anderosn is still on site.

Thank you.

Gregory Harris

HERWIT Engineering

Phone 925-672-6599