



MANATEE COUNTY  
FLORIDA

email

November 3, 2011

TO: All Interested Bidders

SUBJECT: Invitation for Bid #11-2872DC  
North Water Reclamation Facility Expansion 1                      ADDENDUM #1

Bidders are hereby notified that this Addendum shall be made a part of the above named bidding and contract documents. The following items are issued to add to, modify, and clarify the bid and contract documents. These items shall have the same force and effect as the original bidding and contract documents, and cost involved shall be included in the bid prices. Bids to be submitted on the specified bid date, shall conform to the additions and revisions listed herein.

1. Bid Due Date is changed to **November 29, 2011 at 3:00 P.M.**
2. See attached information as prepared by McKim & Creed Engineers. Addendum #2 is forthcoming and will include responses to the questions not addressed in Addendum #1.
3. Information Conference (attendees) sign-in sheet is attached for your information.
4. This project is included in the Federal Stimulus Funded Programs and requires all laborers and mechanics employed by contractors and subcontractors on project to be paid wages at rates not less than those prevailing on projects of a character similar in the locality as determined by the Secretary of Labor. Pursuant to Reorganization Plan No. 14 and the Copeland Act, 40 U.S.C. 3145, the Department of Labor has issued regulations at 29 CFR Parts 1, 3, and 5 to implement the **Davis-Bacon Act**. Contractor shall be required to compute the wages of every mechanic and laborer on the basis of a standard work week of 40 hours. (Manatee County, Heavy Construction) Wage Decision Number FL100264 dated 10/08/2010, and as modified up to ten days prior to Bid Opening, is made a part of this bidding document.

Bids will be received at Manatee County Purchasing, 1112 Manatee Avenue West, Suite 803, Bradenton, Florida 34205 until **November 29, 2011 at 3:00 P.M.**

Sincerely,

Deborah Carey-Reed  
Contract Specialist  
/dcr

Financial Management Department \* Purchasing Division  
1112 Manatee Avenue West, Suite 803, Bradenton, FL 34205  
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**NWRF Expansion Phase I  
County Project No. 6011283  
ADDENDUM 1  
November 3, 2011**

**CLARIFICATIONS**

1. Requests for review of equivalency will not be accepted from anyone except the Contractor, and such requests will not be considered until after the contract has been awarded.

**CHANGES TO THE TECHNICAL SPECIFICATIONS**

1. Specification Section 11312

Replace the last sentence in Paragraph 2.01 B with, "All stainless steel filter mesh shall be precision grade woven, 316 stainless steel, minimum."

Replace the second sentence in Paragraph 2.06 B with, "The filtration mesh shall be a Type 316 Stainless Steel wire weave with nominal 25 micron apertures."

2. Replace Specification Section 11293 in its entirety with the attached Specification Section 11293.

**CHANGES TO THE DRAWINGS**

1. Drawing S-7.2 Section 5- revise the scale to read  $\frac{3}{4}'' = 1'-0''$ .
2. Drawing S-7.3 Section 2 revise the callout "#4 BARS SPA @ 1'-0" O.C. EA WAY (T&B)" to "#5 BARS SPA @ 6" O.C. EA WAY (T&B).

**RESPONSES TO CONTRACTOR QUESTIONS**

1. 36" x 36" slide gate repair – is wall thimble included? Not shown on drawings to be replaced but stated in spec? **The new sluice gate assembly does not include a wall thimble. However, the existing sluice gate does incorporate a wall thimble. It will be the Contractor and gate manufacturer's responsibility to incorporate the existing wall thimble into the new sluice gate design.**

2. Is the AIA bid form acceptable? **Yes, Manatee County does not have a bid bond form, the surety's standard form is acceptable.**
3. Effluent pump station by-pass; Flow is stated at 9,000 gpm but no head condition given? Where does it discharge to? Where can tie-in be made for by-pass? **The 18" discharge line referenced in Technical Specification Section 01030 discharges into the Golf Course Storage Lake. A possible tie-in location would be at PRV-718 (see DWGS C-0.4.1 and M-7.8). The developed system table for discharging into the Golf Course Storage Lake is provided below:**

GPM	TDH (ft)
0	9
1,000	10
2,000	14
3,000	20
4,000	28
5,000	38
6,000	50
7,000	63
8,000	79
9,000	96
10,000	115

4. Plant Drain Station: Is there a valve after the valve vault that can be closed? Are there any other connections into the pipe going to headworks? **Please see Drawing D-0.3 shows an existing valve on the 16" plant drain pump station force main prior to the headworks. There are no other known connections to this forcemain.**
5. Golf Course construction: Does the restriction on when the work can be done only apply to the pipeline work on the golf course or does it also apply to the lake intake work? **This restriction applies to all work within the golf course south of Effluent Pump Back Station No. 1 (see DWG C-0.4.3). The intake structures are not located within the golf course.**
6. Does the County want to take position of demo items? **Please refer to Specification Section 02050 Part 1.01 C.**
7. Is there an estimate for amount of grit expected in the basins? **Please see Bid Item 5a.**
8. What is the engineers cost estimate for project? **\$6.1M.**

9. Is golf course restoration to be included in bid? **Yes.**
10. How low can the anoxic/aeration basin be drained? **A definitive answer cannot be provided. The basin will be drained as low as can be expected utilizing the existing basin drains.**
11. Is hazardous material expected in the grit? **The grit has not been sampled or tested in conjunction with this project, so the disposition of the material is not specifically known. It is anticipated that the grit would be consistent with industry standard product and may have to be disposed of as a special waste due to potential for biological and fecal content, but it is not anticipated to have hazardous material in it. Please note that this does not relieve the contractor from disposing of all the material in an appropriate manner.**
12. What is required to be submitted for local business affidavit and when do we submit it? **Completion of this Form is not required, only encouraged, and can be submitted at any time as specified in IFB Section 00491 (pages 00491-5 to 00491-7). A Local Business does not have an advantage for this contract unless there is a tie bid.**
13. How much are the permit fees? **The Building Permit is \$237.**
14. Are inspection fees required to be paid by contractor and how much are they? **The Contractor is responsible for paying the inspection fees and should coordinate with the Building Department on the cost.**
15. When is NTP expected to be issued? **Routinely 30 – 45 days after contract award, dependent on County's review and approval of contract.**
16. How much muck is in lake? Any investigation done on this? **There has not been any investigation on the amount of muck that exists in the lake.**
17. The three year warranty is difficult to get for some equipment. Is this an absolute requirement? Are there any additional warranty requirements in the individual spec sections? **A three year warranty is required by the County. Additional warranty requirements for individual equipment would be listed in individual technical specification.**
18. Commerce Controls is listed twice in spec. Was a second name intended to be given? **No.**

19. The specs for the fiberglass lift station do not match the County's March 2011 Utility Standards. Which one applies? **The Contractor shall bid on the Contract Documents.**
20. What bid item does the meter and pressure regulating valve assembly and replacement of intake structures go into? **Item 3-Lake Gravity Disc Filters.**
21. Is there adequate room within the Effluent PS to not have interference with the existing pump on the north end of the structure to install the bends? **The location of the 30" tee and associate piping, valves and fittings should be shifted west to avoid a conflict. Final location shall be coordinated with Owner and Engineer prior to work.**
22. Can as-built drawings be provided for the Effluent PS interior? **See Record Drawing Sheet M-44 attached to this addendum.**
23. Can the top slab of the Plant Drain Pump Station be cut outside of the valve vault and wet-well then replace these sections with a new slab rather than having to support the slab while replacing the piping below the top slab? **The top slab of the Plant Drain Pump Station cannot be cut outside of the Valve Vault and Wet-Well and replaced w/ sections of new slab. Unfortunately the existing drawings indicate the dowels from the Valve Vault & Wet Well walls to the existing slab were not placed so that the horizontal leg of these dowels would be positioned in the slab to facilitate this option.**
24. The existing Plant Drain PS by-passing requires 2,400 GPM by-pass pumps but the existing pumps per drawing D-10.1 are only 1,200 GPM. Using a pump with too large of a capacity can create operational problems for the pumps. Can similar size pumps be utilized at this location? **The requirement listed for the by-pass pumping is for two pumps operating and one pump in stand-by.**
25. Can water level elevations in each lake be provided for a minimum of a year? **Historical Water Levels available for the East Lake and the Golf Course Lake are show in graphical form and attached to this Addendum. It should be noted that this is no guarantee of future conditions.**
26. (2 ea) Flowmeters are shown at each of the following locations; The Plant Drain Pump Stations Flowmeter Detail on Drawing M-0.1, the Meter Regulating Valve Assembly Detail A on Drawing M-7.1, and the Pressure Regulating Valve Assembly Detail D on Drawing M-7.1. Please confirm the (6 ea) Flowmeters are required. **What the drawings depict are the two transducers (one upstream and one**

- downstream) associated with each flow meter, so in essences there are only three (3) flow meters.**
27. Confirm if H-20 Loading is required on the Lake Filter Backwash Pump Station Hatches as shown on Drawing M-7.6. **H-20 Loading is required on the Lake Filter Backwash Pump Station Hatch only.**
  28. Confirm if the Allowance can be used for the Building Department Fees. **The Allowance may not be used to pay the Building Department Fee.**
  29. The GeoTech Report Scope of Work calls for a Generator Building, Aerobic Tank, RAS/WAS Pump Station, and two Stormwater Ponds to be constructed. Confirm these items have been deleted from the bid. **The geotechnical report provided in the Technical Specifications is from the original expansion project which has since been divided into phases. Phase I (current project) does not include the generator building, aerobic tank, RAS/WAS Pump Station or the two large stormwater ponds to be constructed. For clarification, Phase I does include the construction of the stormwater pond and swales shown DWG C-0.1.1.**
  30. Note 11 on sheet G-0.2 states the contractor shall include in his bid by-pass pumping facilities for the plant. If the modifications to Anoxic/Aerobic Basins 1 while Basin #2 remains online, will by-pass pumping be required? **Please refer to Section 01030 of the Technical Specifications.**
  31. Note 20 on sheet G-0.2 states all below grade fittings 4" and greater shall be fusion bonded epoxy for their interior and exterior surfaces. Specification Section 15050 Part 2.01 has some fitting as 401 ceramic epoxy lined. Please advise as to which documentation we should apply. **Interior pipe linings shall be in accordance with the Table provided under Part 2.01 of Technical Specification Section 15050.**
  32. Can we use the existing piles of fill on the north side of the site? We will replace it at the end of the project. **No.**
  33. Could you please provide as-built information (i.e. top of pipe elevations) for the existing effluent and reclaimed water lines in the plant that we have to tie into? Specifically the 20" EFF northwest of the Control Building, the 18" RCW northwest of the Sludge Dewatering Building, and the two 20" EFF lines southwest of the ABW Filters. **The depth of the 18" RCW at STA 199+32, 28' RT on DWG C-0.4.1 is not known. Available information suggests that the 20" EFF line at STA 200+79 27' LT on DWG C-0.4.1 is at elevation 25.49.**

34. Can the grit removed from the basin be disposed of at the Landfill? **There is no known reason why the grit cannot be disposed of at the landfill if properly dewatered.**
  
35. Please see the measurement & payment for Bid Item #5. How long will the engineer's "inspection" take? We'll need to know for rental of the scissor lift and to see how it affects the projects schedule. **The Contractor shall allow 1-week for the Engineer's Inspection at each basin.**

## SECTION 11293

### DOWNWARD-OPENING WEIR GATES

#### PART 1 - GENERAL

##### 1.01 DESCRIPTION OF WORK

A. This section includes furnishing all labor, materials, equipment and incidentals required and installing and field testing the stainless steel downward opening weir gates and operators located at Aerobic Basin #1 and Aerobic Basin #2.

##### 1.02 GENERAL

A. The equipment provided under this section shall be fabricated, assembled, erected, and placed in proper operating condition in full conformity with the drawings, specifications, engineering data, instructions and recommendations of the equipment manufacturer unless exceptions are noted by the engineer.

B. Gates and operators shall be supplied with all the necessary parts and accessories indicated on the drawings, specified or otherwise required for a complete, properly operating installation and shall be the latest standard product of a manufacturer regularly engaged in the production of water control gates.

C. Weir gates supplied under this section shall be Series 40 stainless steel downward opening weir gates as manufactured by H. Fontaine Ltd. or Approved Equal.

##### 1.03 QUALITY ASSURANCE

A. The manufacturer shall have experience in the production of substantially similar equipment, and shall show evidence of satisfactory operation in at least 50 installations. The manufacturer's shop welds, welding procedures and welders shall be qualified and certified in accordance with the requirement of the latest edition of ASME, Section IX.

B. Except as modified or supplemented herein, all gates and operators shall conform to the applicable requirements of AWWA C513, latest edition.

C. Weir gates shall be shop inspected for operation before shipping.

D. The manufacturer shall be ISO 9001: 2000 certified.

E. Leakage:

1. Weir gates shall be substantially watertight under the design head conditions. Leakage shall not exceed 0.05 U.S. gallon per minute per foot (0.60 l/min per meter) of seal periphery under the design seating head and 0.1 U.S. gallon per minute per foot (1.25 l/min per meter) of seal periphery for the design unseating head.

F. Design Head

1. Weir gates shall be designed to withstand the design head (maximum design head shall be taken as the height of the slide unless otherwise shown in the schedule).

G. Seal Performance Test

1. The weir gate's sealing system shall have been tested through a cycle test in an abrasive environment and shall show that the leakage requirements are still obtained after 25,000 cycles with a minimum deterioration.

#### **1.04 SUBMITTALS**

- A. The manufacturer shall submit, for approval by the purchaser, drawings showing the principal dimensions, general construction and materials used in the gate and lift mechanism.

### **PART 2 - PRODUCTS**

#### **2.01 WEIR GATES**

**A. General Design**

1. Weir gates shall be either self-contained or non self-contained, and of the rising stem or non-rising stem configuration, as indicated on the gate schedule.

## **B. Frame**

1. The gate frame shall be constructed of structural members or formed plate welded to form a rigid one-piece frame. The frame shall be of the flange back design, suitable for mounting on a concrete wall (CW). The guide slot shall be made of UHMWPE (ultra high molecular weight polyethylene).

## **C. Slide**

1. The slide shall consist of a flat plate reinforced with formed plates or structural members to limit its deflection to 1/720 of the gate's span under the design head.

## **D. Guides and Seals**

1. The guides shall be made of UHMWPE (ultra high molecular weight polyethylene) and shall be of such length as to retain and support at least two thirds (2/3) of the vertical height of the slide in the fully open position.
2. The bottom and side seals shall be made of UHMWPE (ultra high molecular weight polyethylene) of the self-adjusting type. A continuous compression cord shall ensure contact between the UHMWPE guide and the gate in all positions. The sealing system shall maintain efficient sealing in any position of the slide and let the water flow only in the open part of the gate.
3. Seals shall maintain the specified leakage rate in both seating and unseating conditions.

## **2.02 STEM AND ACCESSORIES**

### **A. Stem and Couplings**

1. The operating stem shall be of stainless steel designed to transmit in compression at least two (2) times the rated output of the operating manual mechanism with a 40 lbs (178 N) effort on the crank or handwheel.

2. The stem shall have a slenderness ratio ( $L/r$ ) less than 200. The threaded portion of the stem shall have machine cut threads of the Acme type.
3. Where a hydraulic, pneumatic or electric operator is used, the stem design force shall not be less than 1.25 times the output thrust of the hydraulic or pneumatic cylinder, with a pressure equal to the maximum working pressure of the supply or 1.25 times the output thrust of the electric motor in the stalled condition.
  - a. For stems in more than one piece and with a diameter of 1-3/4 inches (45 mm) and larger, the different sections shall be joined together by solid bronze couplings. Stems with a diameter smaller than 1-3/4 inches, shall be pinned to an extension tube.
  - b. The couplings shall be grooved and keyed and shall be of greater strength than the stem.
  - c. Gates having width equal to or greater than two times their height shall be provided with two lifting mechanisms connected by a tandem shaft.

#### **B. STEM GUIDES**

1. Stem guides shall be fabricated from type 316L stainless steel. The guide shall be equipped with an UHMWPE bushing. Guides shall be adjustable and shall be spaced in accordance with the manufacturer's recommendation. The  $L/r$  ratio shall not be greater than 200.

#### **C. STEM COVER**

1. Rising stem gates shall be provided with a clear polycarbonate stem cover. The stem cover shall have a cap and condensation vents as well as a clear mylar position indicating tape. The tape shall be field applied to the stem cover after the gate has been installed and positioned.

#### **D. YOKE**

1. Self-contained gates shall be provided with a yoke made of structural members or formed plates. The maximum deflection shall be 1/360 of the gate's span.

## **2.03 ELECTRIC ACTUATOR**

### **A. GENERAL DESIGN**

1. Electric actuator shall include the electric motor, reduction gearing, valve stem drive nut/bushing, position limit switches, mechanical overload torque switches, ductile iron gear case and automatic declutchable handwheel.
2. Actuators shall be limited to the following manufacturer:
  - a. EIM - Emerson Process Management Valve Automation, Type M2CP (Series 2000), Missouri City, Texas.
  - b. Approved Equal

### **B. GEARS**

1. Motor speed reduction shall be by means of a gear train consisting of hardened steel spur gears and self-locking worm and worm gear set. The worm shall be heat treated alloy steel and have worm thread surface rolled or ground. The worm gear shall be bronze. Non-metallic gears in the power train are not acceptable. Operating time/output RPM changes shall easily be accomplished by spur gear set changes without having to change motor RPM.

### **C. ROTATING COMPONENTS**

1. All gearing and shafting shall be supported on anti-friction bearings. All thrust components shall be supported by use of tapered roller bearings. Electric actuator drive sleeve shall be supported by tapered roller bearings at the top and bottom; bushings are not acceptable.

### **D. HANDWHEEL DRIVE**

1. The actuator shall be furnished with a handwheel or handcrank located in a 90 degree plane from the actuator output drive, with a maximum rim pull requirement of 60 pounds for valve travel loads. An external manual declutch lever shall be included to place actuator in the manual mode. The lever shall not require more than a 10 pound force to engage even when

the valve has been tightly seated. The lever is to be padlockable in either handwheel or motor mode. Operation by motor shall not cause the handwheel to rotate, or operation of the handwheel shall not cause the motor to rotate. Handwheel shall operate in the clockwise direction to close. Engagement of the handwheel gearing shall not disconnect actuator self-locking worm gearing from the driven load. This is a safety feature, independent of valve stem/nut static friction, to prevent lowering of the driven load.

#### **E. LUBRICATION**

1. All gearing and bearings shall be grease or oil lubricated and suitable for year-round service based on prevailing ambient temperature conditions.

#### **F. ELECTRIC MOTORS**

1. Electric motors shall be specifically designed for valve actuator service, and shall be totally enclosed, non-ventilated. The enclosure shall meet Nema 4 (weatherproof), Nema 6 (submersible), or Nema 7 (explosion proof), as required for the project. Motor shall be capable of operation under maximum specified loads when the voltage to the motor is +/- 10% of the nominal voltage. Motor shall have Class F insulation with Class B thermal overload sensors imbedded in the motor windings.
2. Motor replacement shall not require recalibration of the actuator's torque output and shall not require the use of computers. Motors shall be field replaceable as a complete assembly - motor housing, bearings, rotor, stator and end bells/flanged mounting adapter.

#### **G. LIMIT SWITCHES**

1. Limit switches shall be geared to the drive mechanism and in step with actual valve position at all times, whether operation is by power or manual mode. Switches shall be activated by a rotor type design. Contacts shall be silver and have a rating of 10 amps at 120 VAC, a minimum of (3) N.O. and (3) N.C. contacts shall be provided for each direction of travel. The limit switch gear mechanism shall be enclosed to prevent entrance of foreign matter or wire

entanglement. Designs using traveling nut mechanisms and/or slip clutches are not acceptable. Use of cams or screws to set switches or designs requiring battery back-up methods to track valve position during power failure are not acceptable.

#### **H. TORQUE SWITCHES**

1. The actuator shall include an adjustable torque switch to interrupt the motor power circuit when an obstruction is encountered in either direction of travel or when torque seating of valves is required for tight shut off. The torque switch shall have a calibrated dial for adjustment and have means to ensure maximum actuator rating is not exceeded. Contacts shall have the same construction and rating as the limit switch. Mechanical torque springs for load control shall be field replaceable without need of actuator dismantling or removal of the worm assembly. Torque switch shall operate in both motor and handwheel mode of operation. Torque control designs that do not employ mechanical torque springs are unacceptable.

#### **I. POSITION INDICATION**

1. Local position indication for quarter turn valves shall be by an indicator dial located atop the final output drive sleeve of the electric actuator or atop auxiliary worm gear reducer and shall be graduated in 25 degree increments. For rising stem multi-turn actuators, a dial window indicator shall be located on the limit switch compartment cover and labeled 0 to 100% open and graduated in 5% increments. If remote position indication is specified, this shall be by means of a 1000 Ohm potentiometer in step with valve position at all times whether operation is electrical or manual. When specified, a 4-20 mA output transmitter shall be furnished. Position indication shall be mechanical and shall not require the use of batteries if power is lost to the actuator.

#### **J. ELECTRICAL CONTROLS**

1. As a minimum, the actuator shall be furnished with power and control terminal strips, space heater (25watt), limit switches, torque switches, all housed in a control compartment meeting Nema 4

(weatherproof), Nema 6 (submersible), or Nema 7 (explosion proof), as specified for the project. The rectangular enclosure shall have a bonded O-ring seal and a hinged cover. Cover bolting shall be captive stainless hex head screws.

2. When built-in controls are specified they shall be an integrated modular package, completely wired and be easily removable or replaceable as a complete package. This shall be accomplished by removal of four (4) captive screws. Motor leads and power supply leads will be terminated to the terminal strips located on the modular control package. Power supply terminals (5 points minimum) and control supply terminal (48 points minimum) shall be physically isolated from each other to protect against transient voltages. The terminal strips shall be completely shrouded with a high impact resistant plastic to avoid accidental terminal contact by personnel. Terminal screws shall be pre-inserted and shall be made of nickel plated brass. The module is to include a snubber circuit to provide control voltage protection for switches and electronic modules for voltage surges. All electrical components of the modular package, such as reversing contactor, transformer, etc., shall be a unidirectional plug connected to provide easy removal and replacement without concerns for proper wiring connections. All optional control requirements such as modulating control, 2-wire control, interposing relays, etc. shall be plug-in printed circuit type boards having gold plated contact connectors. Unless otherwise specified, all PC boards must be temperature rated -40 to +70 degree C. Ease of replacement or upgrading shall be of paramount consideration.

#### **K. OPEN-CLOSE SERVICE CONTROLS**

1. As a minimum, these shall include:
  - a. Reversing Contactor: Control Voltage shall be 120 volts, 50 or 60 hz. N.O. Seal-in contacts for momentary contact pushbutton control and N.C. contacts for electrical interlock shall be supplied. When specified, additional contacts (1 N.O. and 1 N.C. for open and close coils) shall be supplied. The contactor shall be both electrically and mechanically interlocked. It shall be completely

wired as an assembly and plug connected to the modular package.

- b. Control Power Transformer: The transformer assembly shall provide 120, 18 and 12 VAC. It shall be epoxy impregnated and encapsulated to prevent moisture incursion and shall be completely wired as an assembly and plug connected to the modular package. Control power transformer shall be dual fused and shall include both primary and secondary fuse protection. Fuses shall easily be accessed and replaced without having to remove components or assemblies other than removal of the terminal strip cover.
- c. Pushbuttons: Each actuator shall be supplied with open-stop-close pushbuttons furnished integrally mounted. Pushbuttons shall be double o-ring sealed and include a protective silicone boot. Seal material shall be resistant to ozone and ultraviolet light. When integrally mounted pushbuttons are specified, the design shall permit operation of the buttons when the electrical enclosure cover is open.
- d. Indicating Lights: The actuator shall include two (2) long life high intensity LED type pilot lights to indicate open, closed and intermediate valve position (both lights on). Red shall indicate valve open and green shall indicate valve closed. An optional LED pilot light shall be furnished to indicate power is on. A fourth optional LED pilot light is available to indicate torque switch trip.
- e. Selector Switch: The actuator shall include a 3-position selector switch, for local (hand)-off-remote (auto) control. If specified, the switch shall be padlockable in any position. A tumbler keylock option may be specified.
- f. Other Options: (When specified), such as interposing relays, two wire control, positioning and modulating control, etc., shall be by means of plug-in type PC board modules designed for easy upgrading without the need of changing existing equipment.

#### **L. POSITIONING CONTROL SERVICE**

1. This service shall provide up to 100 starts per hour (1 phase power) and up to 1200 starts per hour (3 phase power) with positioning accuracy to +/- 1.0% dependent on valve operating time greater than 15 seconds.
2. The positioning control service shall be EIM Digital Futronic II and shall include, in addition to the Open-Close controls:
  - a. Comparator Circuit: The comparator circuit shall be a solid state plug-in PC board to accept a 4-20 mA input control signal from a position controller and have zero, span and deadband adjustment. The circuit shall provide, as standard, a 4-20 mA output signal for remote position indication. Both input and output signals shall be optically isolated. The circuit shall include selectable setting to Remain-In-Last Position or go to pre-set position on Loss of control signal. Failure or removal of the positioning card shall not prevent local pushbutton control of the actuator.

**M. CONTINUOUS DUTY MODULATION SERVICE**

1. When specified, modulation service shall provide up to 1200 starts per hour for single phase power and 1200 starts per hour for 3 phase power.
2. Single phase service actuators shall utilize a 2100 rpm, DC current, Class H insulated motor. The DC motor voltage shall be rectified from 1 phase AC within the actuator control system. All reversing mechanisms shall be of the solid-state type. Single phase units shall be EIM Digital Futronic III. Position accuracy shall be +/- 0.25% for 15 seconds or greater operating time.
3. Three phase service actuators shall have solid-state starter and shall be EIM Digital Futronic IV. Position accuracy shall be +/- 0.50% for 15 seconds or greater operating time.

**2.04 MATERIALS**

PART	MATERIAL
Frame, yoke, stem	Stainless steel ASTM A-240

guides, slide, stem extension	type 316L
Guides, side and bottom seals, stem guide liner	Ultra high molecular weight polyethylene (UHMWPE) ASTM D-4020
Compression cord	Nitrile ASTM D2000 M6BG 708, A14, B14, E014, E034
Threaded stem	Stainless steel ASTM A-276 type 316
Fasteners	ASTM GR2 for type 316
Pedestal, handwheel and crank	Tenzaloy aluminum
Gasket (between frame and wall)	EPDM ASTM 1056
Stem cover	Polycarbonate ASTM D-3935
Lift nut, couplings	Manganese bronze ASTM B584 UNS-C86500

## 2.05 SCHEDULE

<b>Gate Location</b>	Aerobic Basin #1 & #2
<b>Gate Identification</b>	Weir Gate #1 & #2
<b>Gate Type</b>	Self-Contained
<b>Size</b> Width x Height	180" x 36"
<b>Operating Floor Elevation</b>	N/A
<b>Invert Elevation</b>	N/A
<b>Head</b> (Seating; Unseating)	Seating
<b>Mounting</b>	CW

Gate Type: Open or self-contained

Mounting: CW - Mounted concrete wall

**PART 3 - EXECUTION**

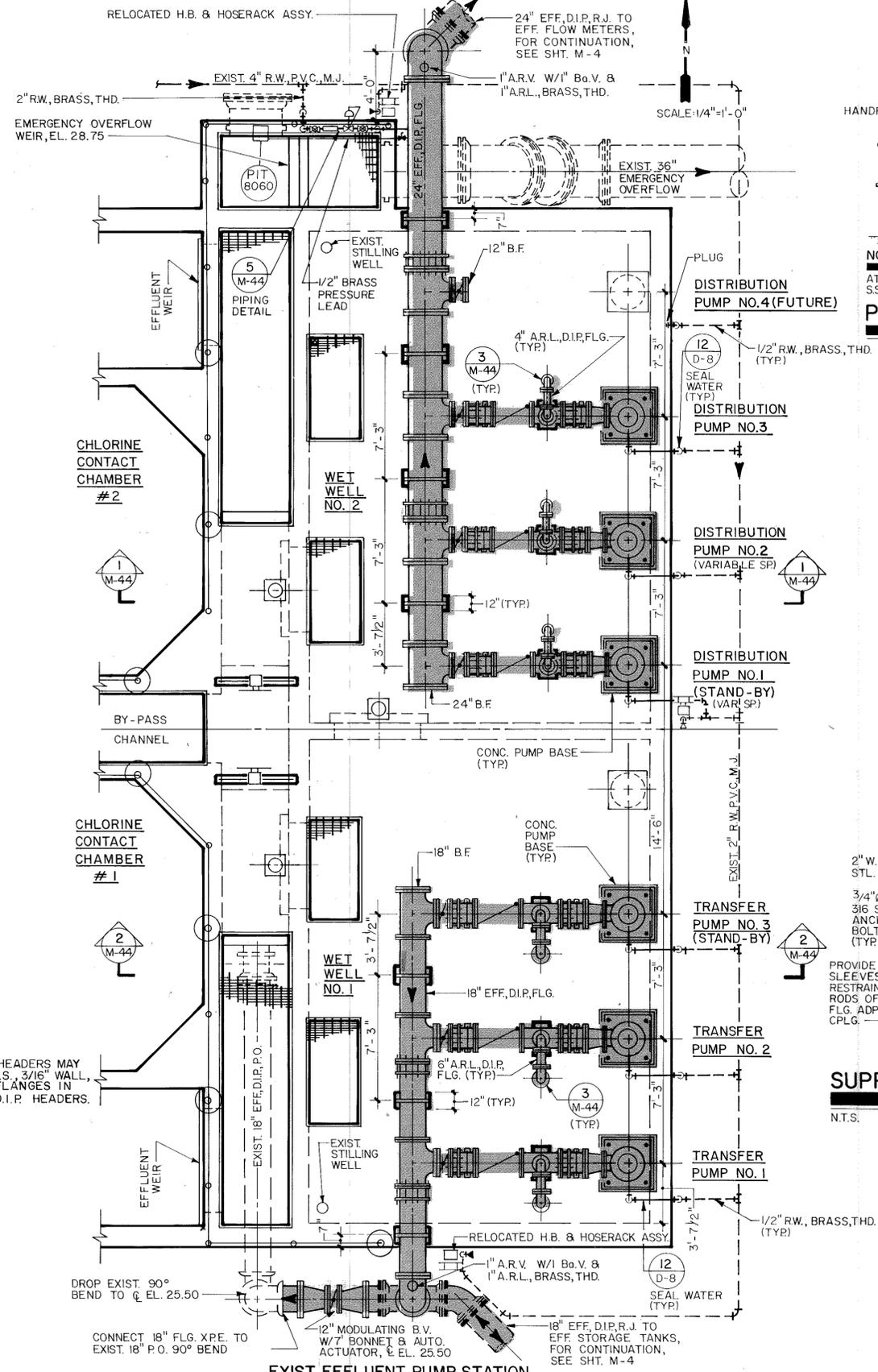
**3.01 INSTALLATION**

- A. Gates and appurtenances shall be handled and installed in accordance with the manufacturer's recommendations.

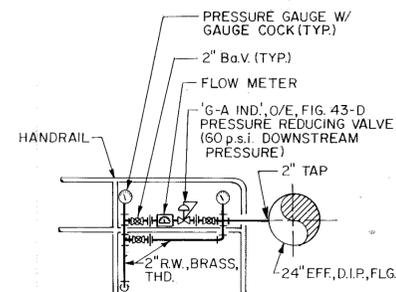
**3.02 FIELD TESTS**

- A. Following the completion of each gate installation, the gates shall be operated through at least two complete open/close cycles. If an electric or hydraulic operator is used, limit switches shall be adjusted following the manufacturer's instructions.
- B. Gates should be checked for leakage by the contractor (refer to the "Performance" section for approval criteria).

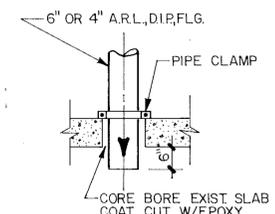
**END OF SECTION**



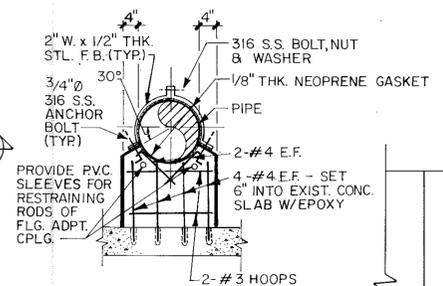
**PLAN**



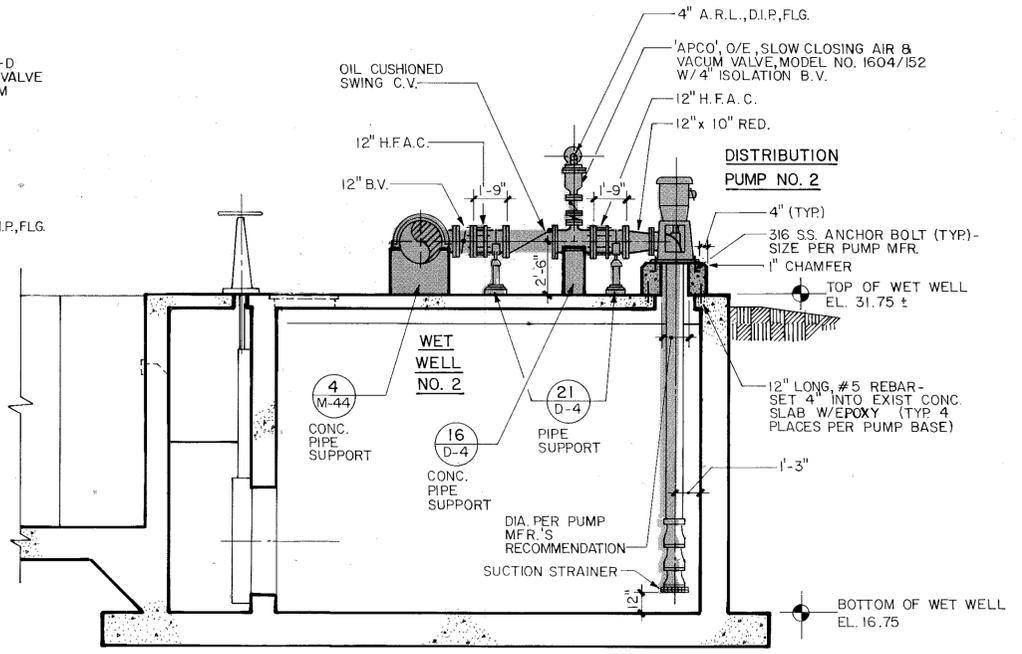
**NOTE**  
ATTACH PIPING TO HANDRAIL W/  
S.S. HARDWARE.  
**PIPING DETAIL 5**  
M-44  
N.T.S.



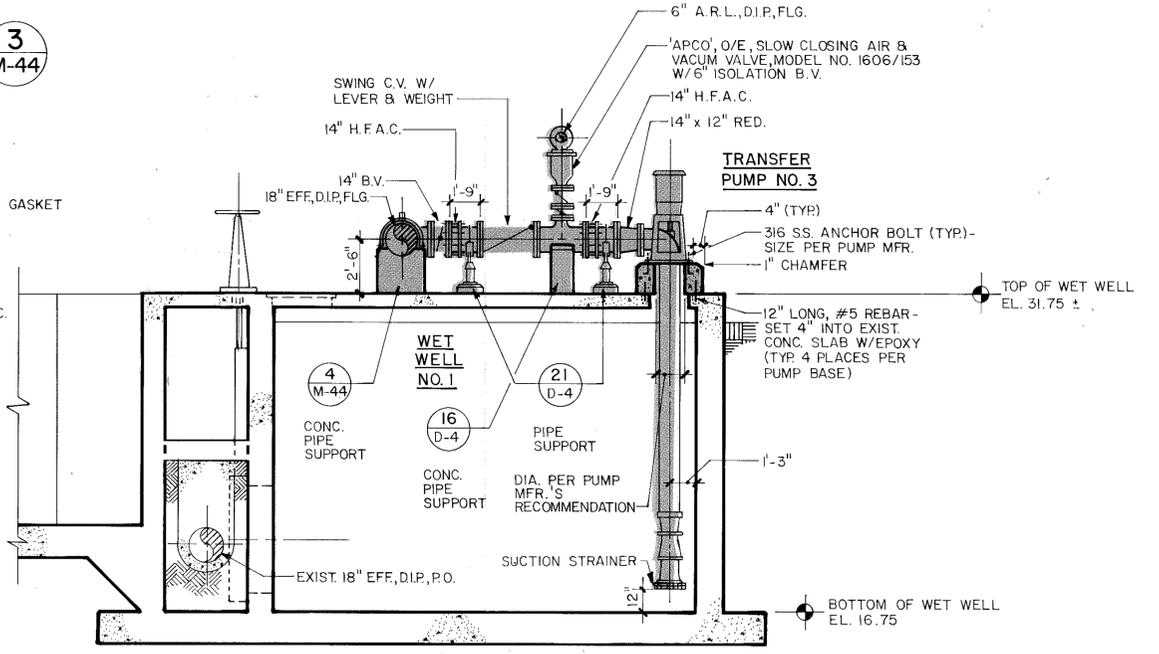
**A.R.L. DETAIL 3**  
M-44  
N.T.S.



**SUPPORT DETAIL 4**  
M-44  
N.T.S.



**SECTION 1**  
M-44  
1/4"=1'-0"



**SECTION 2**  
M-44  
1/4"=1'-0"

**NOTE**  
EFFLUENT HEADERS MAY BE 304L S.S. 3/16" WALL, WITH D.I. FLANGES IN LIEU OF D.I.P. HEADERS.

**NOTE**  
PUMP & PIPING LAY-OUT FOR TRANSFER PUMP NO. 3 IS TYPICAL FOR TRANSFER PUMPS NO. 1 & 2

EFFLUENT PUMP STATION

MANATEE COUNTY PUBLIC UTILITIES DEPARTMENT  
NORTH SUBREGIONAL  
WASTEWATER TREATMENT FACILITIES  
E.P.A. NO. C-120540060 MANATEE COUNTY, FLORIDA

CAMP DRESSER & McKEE INC.

environmental engineers, scientists, planners, & management consultants **CDM**

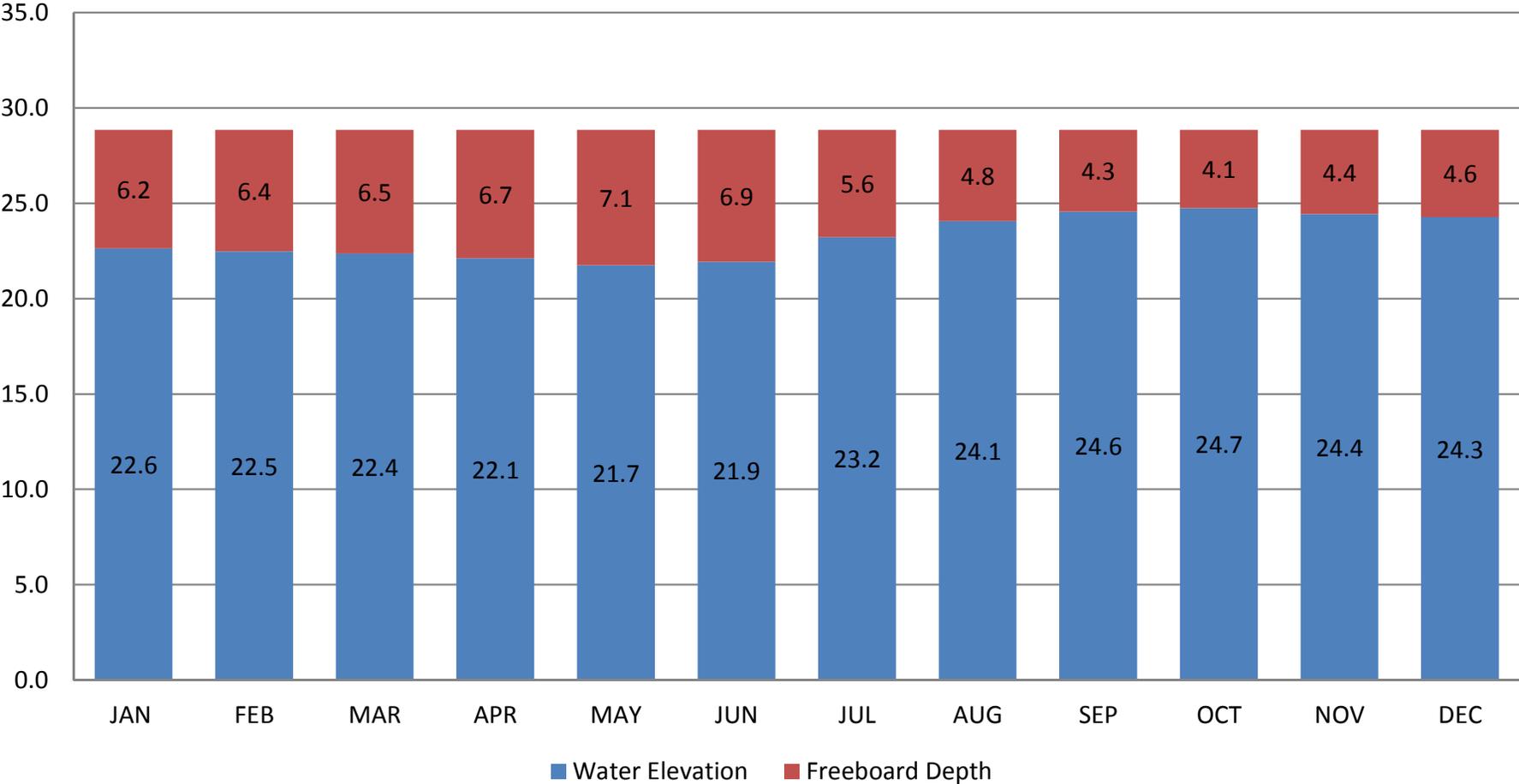
REVISIONS	
1	2/87 WLR CONFORMED
2	
3	
4	
5	

**Larson Engineering, Inc.**  
Consulting Engineers  
T145  
6404 Manatee Ave. W., Suite N  
Bradenton, Florida 33529  
(813) 794-5450  
DESIGNED: W.L.R. CHECKED: C.J.F. DATE: JAN. 1985 SCALE: 1/4"=1'-0"  
DRAWN: D.R.K. FILE NO: 031-006-84 SHEET: M-44 OF: M-46

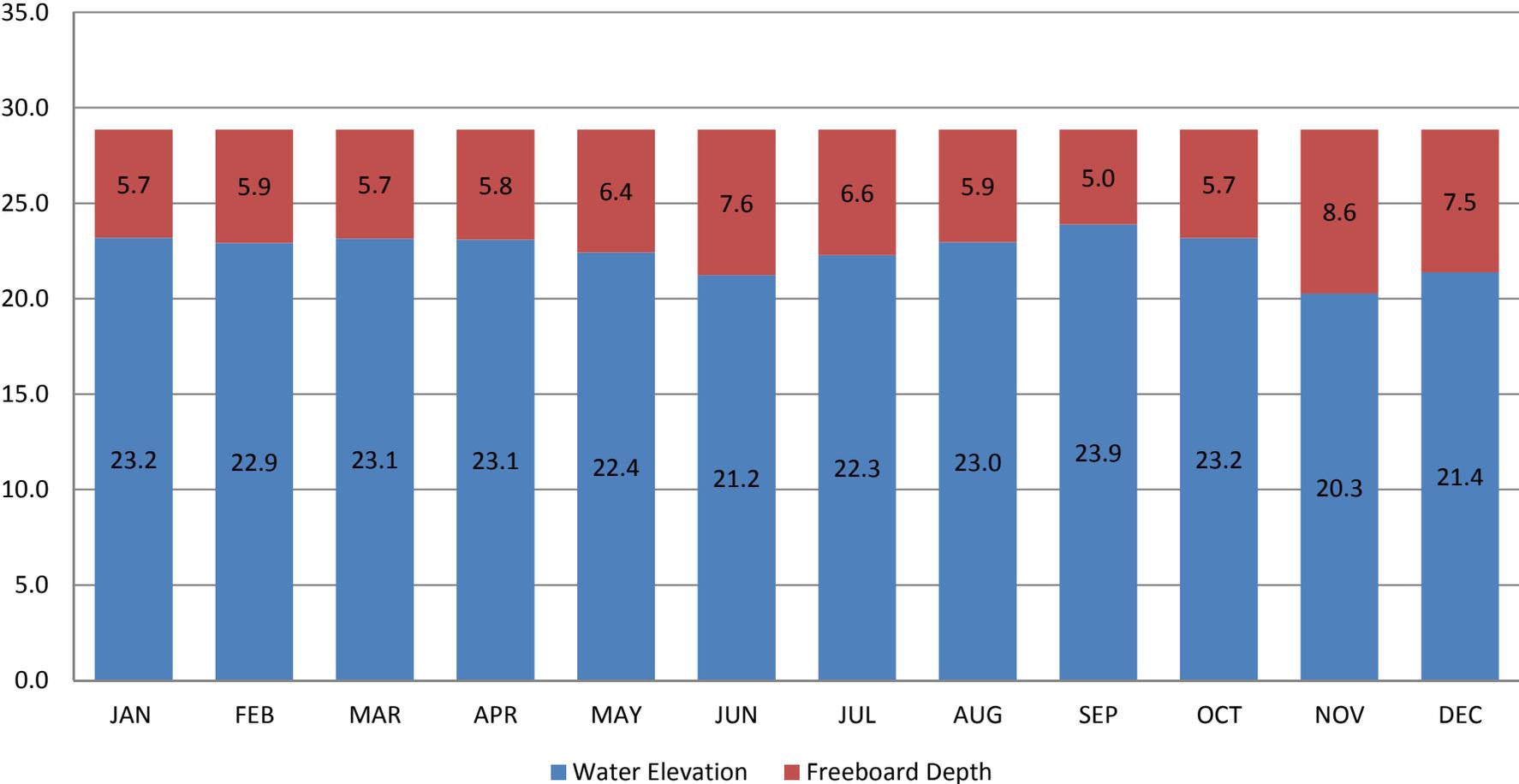
26-01 RECORD DRAWINGS 12/19/89



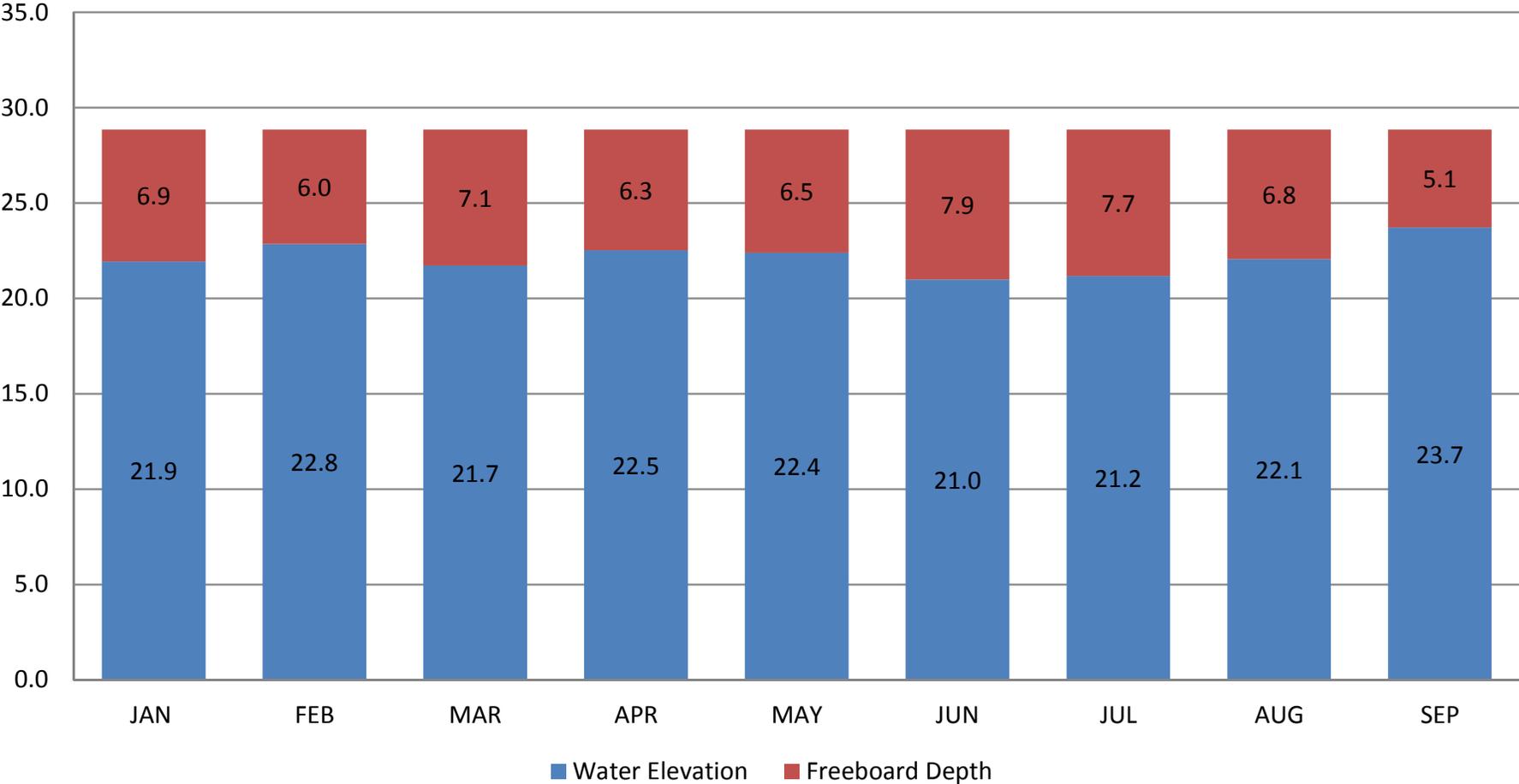
# NWRF East Lake 2009 Lake Elevations



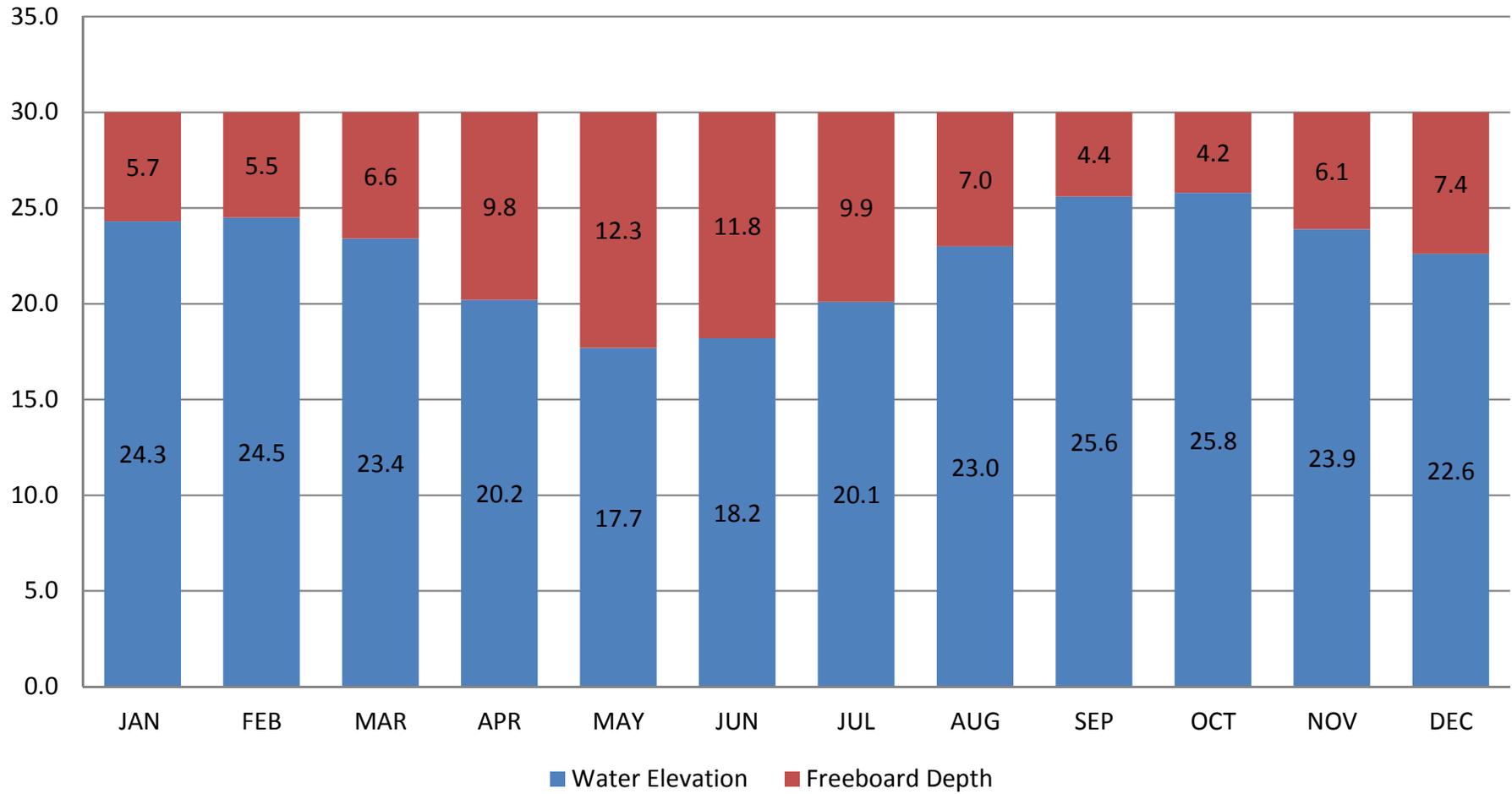
# NWRF East Lake 2010 Lake Elevations



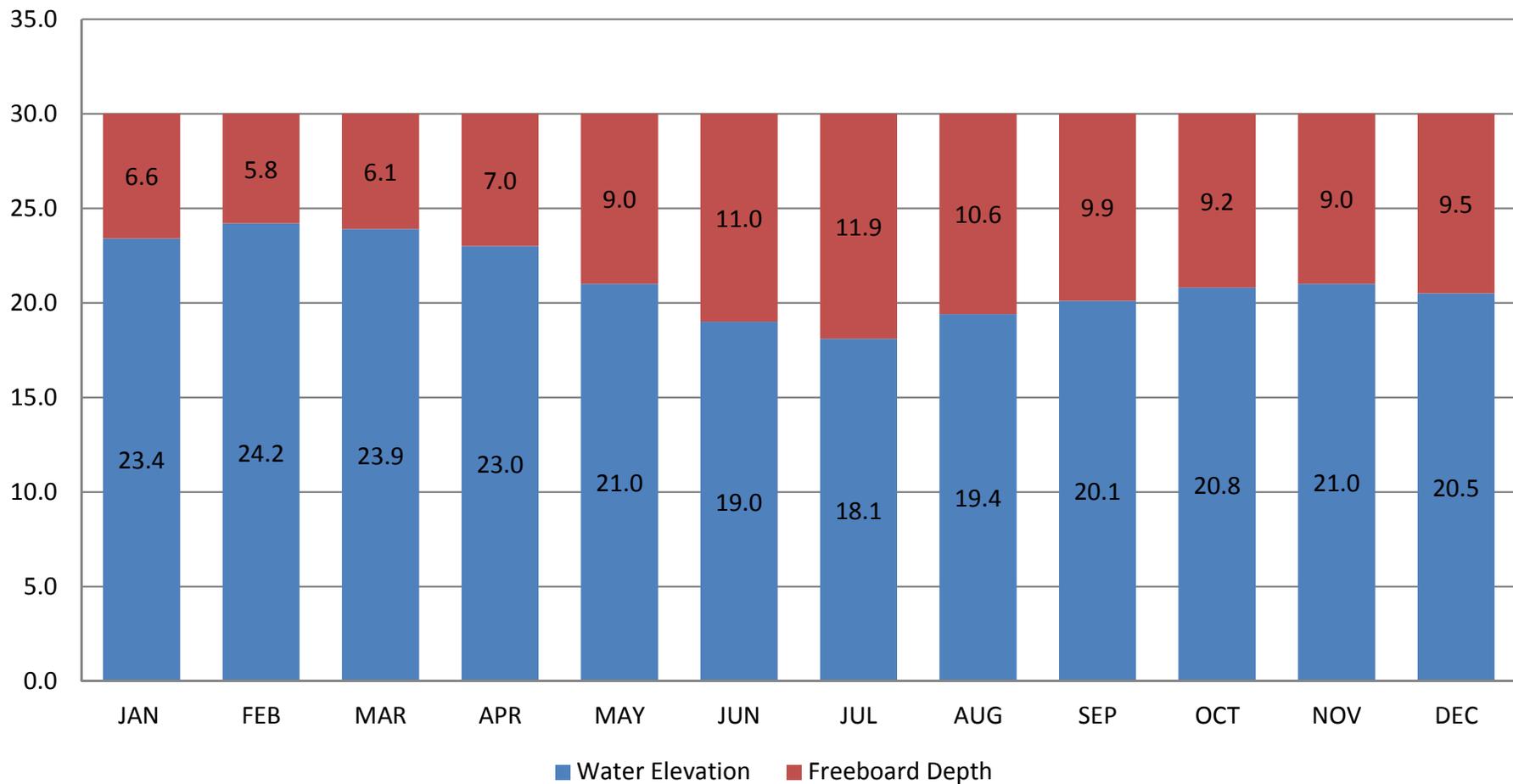
# NWRF East Lake 2011 Lake Elevations



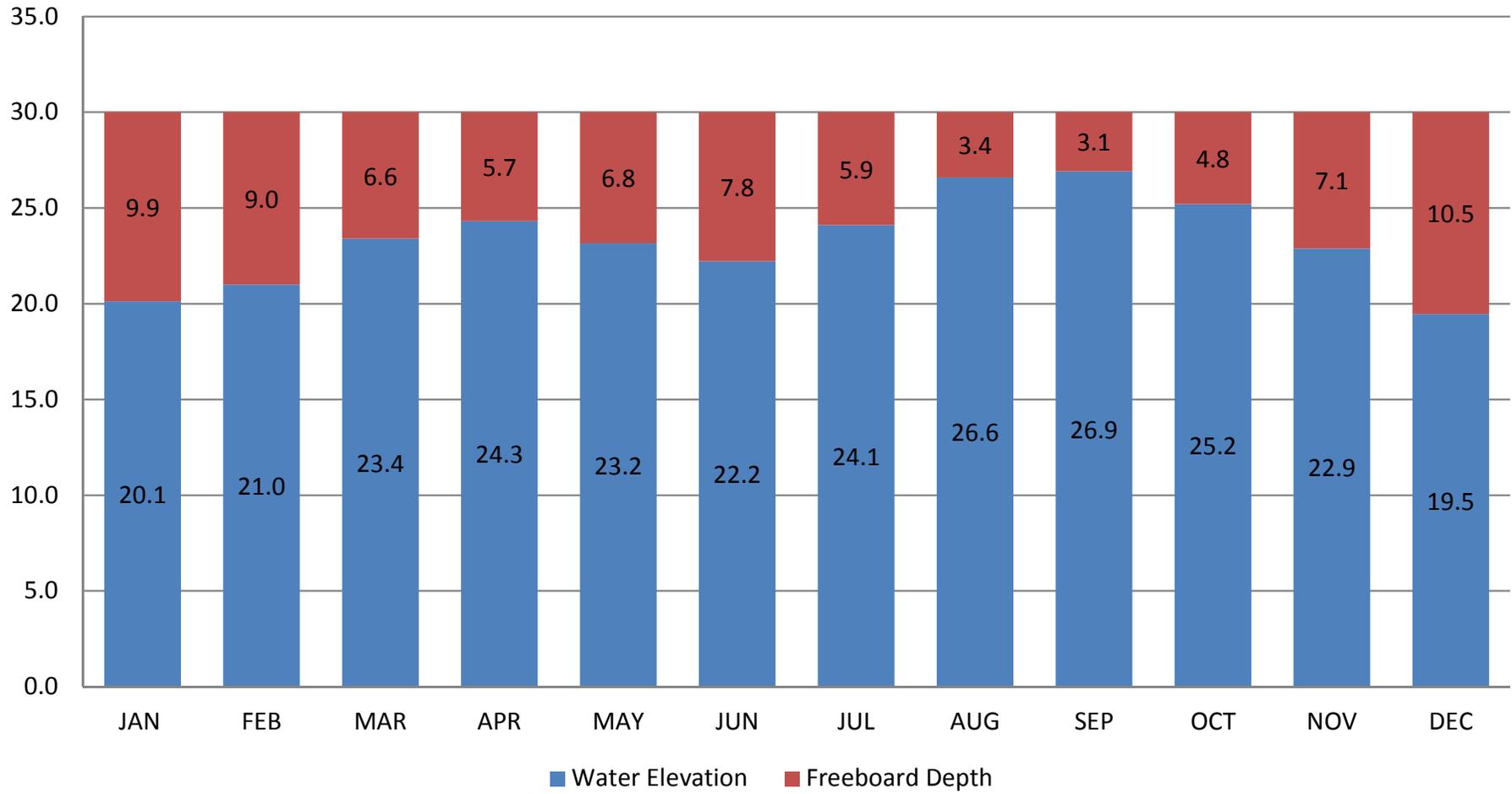
## NWRF Golf Course Lake 2006 Lake Elevations



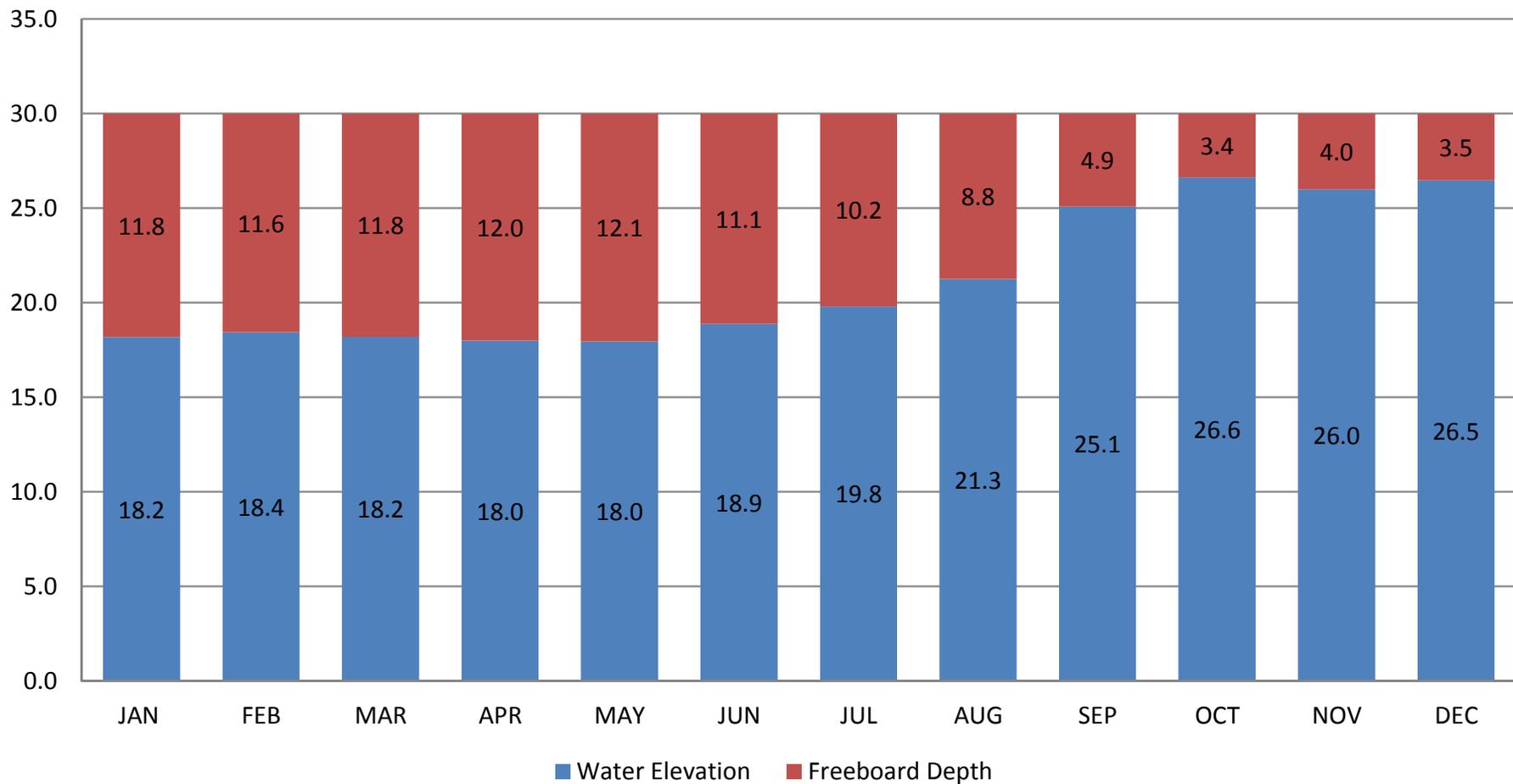
## NWRF Golf Course Lake 2007 Lake Elevations



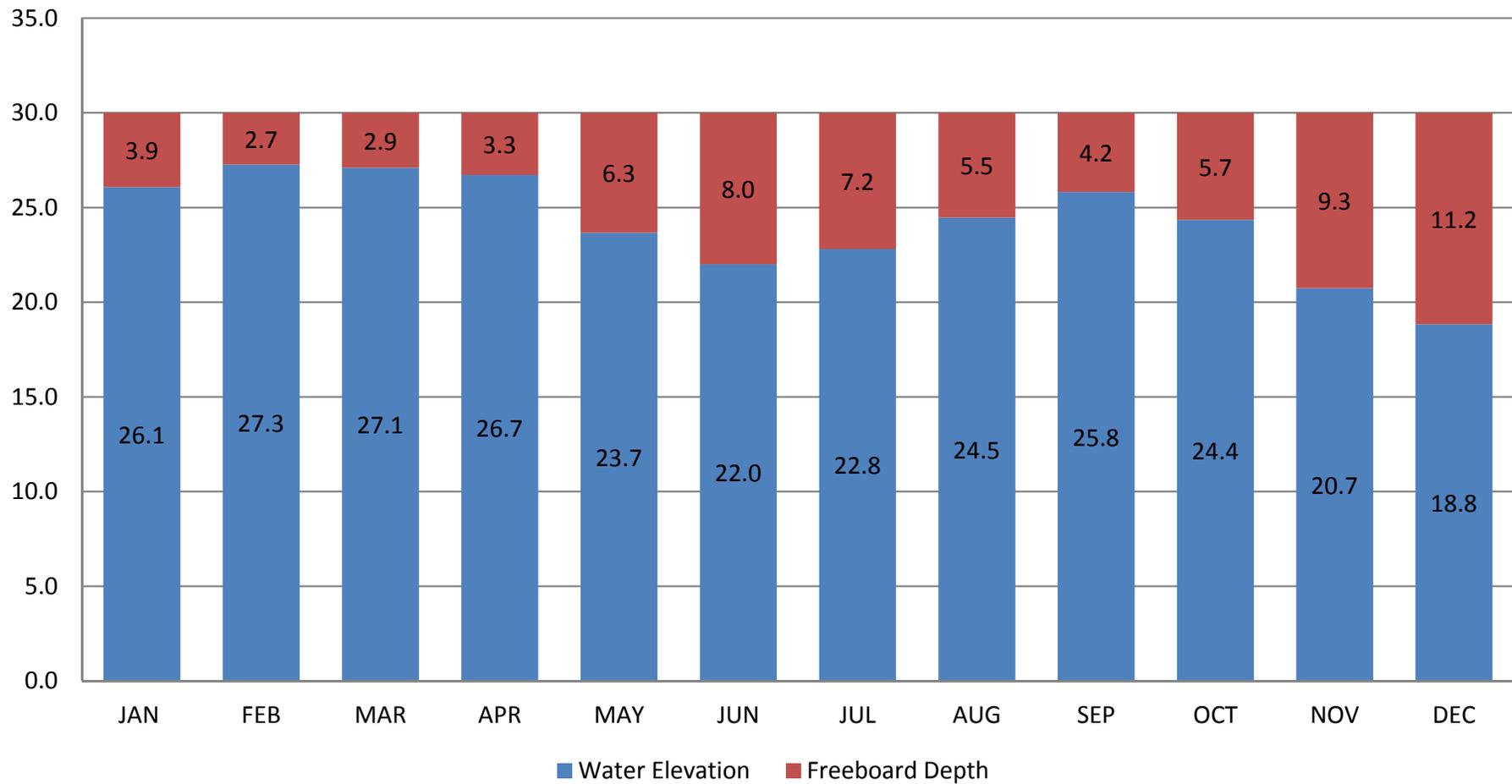
# NWRF Golf Course Lake 2008 Lake Elevations



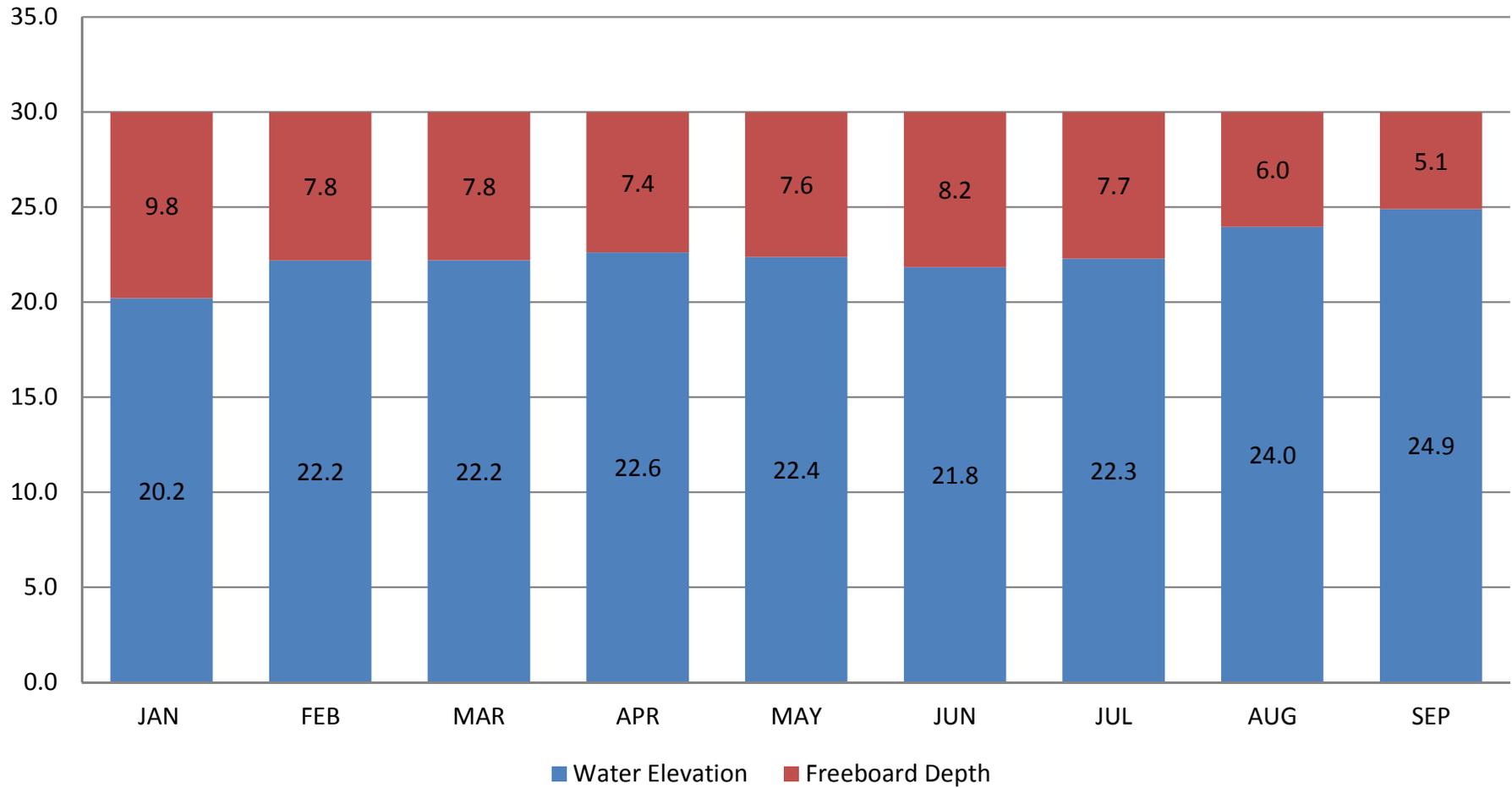
## NWRF Golf Course Lake 2009 Lake Elevations



## NWRF Golf Course Lake 2010 Lake Elevations



## NWRF Golf Course Lake 2011 Lake Elevations



**INFORMATION CONFERENCE: INVITATION FOR BID**  
**IFB #11-2872DC NORTH WATER RECLAMATION FAC. EXPANSION 1**

**DATE: OCTOBER 18, 2011**

**TIME: 10:00 AM @ SITE**

TELEPHONE/ FAX/ EMAIL	NAME (PLEASE PRINT)	COMPANY NAME
T. 941.749.3074 F. 941.749.3034 kbrak, carey-reed @mymanatee.org	Deborah Carey-Reed	Manatee County Purchasing
> 863-324-3882 = 863 324 3648	*	✓
Donna @ CenState.com	Ronnie Blackwell	CenState Contractors
Phone - 813-783-9119 Fax - 813-783-9333 bids@rtconstruction.com	Michele Campbell	RTD Construction, Inc.
P- 941-377-8555 F- 941-377-8542	Chad Sandel	Cardinal Contractors Inc
email: csandel@cardinalco.com	Chad Sandel	Cardinal <del>Contractors Inc</del>
Phone: 407-321-8410 Fax: 407-330-1092	Dawn Bragg	Wharton-Smith, Inc.
jbragg@whartonsmith.com 904-268-0099 268-2922	Dawn Bragg	Wharton-Smith, Inc.
DBELLOTT@WPCIND.com 813-425-1443 813-961-1575	Donnie Bellott	WPC IND.
lrcarlton@pcl.com	Leonard Carlton	PCL Construction
atfranosz@pcl.com 813-725-1444	Andrew Franosz	PCL Construction, Inc.
P: 941 708 7450 anthony.benitez@mymanatee.org	ANTHONY BENITEZ	MANATEE CO PW
P. 863-865-8500 VIZZAM@barneyspumps.com	MICHAEL VIZZA	BARNEY'S PUMPS
* 941-722-0621 (different phone # demand for) F 941-722-1382 MHEATH@TLC DIVERSIFIED.com	MARK HEATH	TLC



TELEPHONE/ FAX/ EMAIL	NAME (PLEASE PRINT)	COMPANY NAME
P# 407-846-3121 FX # 407-846-2887 jgorman@garney.com	Matt McKinnon for Jeff Gorman	Garney Construction ✓
863-646-5070 FX: 863-644-5107 Myana@vogelbldg.com	Mike Young	Vogel Bros. Building Co. ✓
* 305-525-0392 Stephen - BIK@Emscor Group.com	Mike Caulfield FAX # in demand star	The Poole & Kent Company ✓
305-325-1930 Estimating E-Mail Robert - Dates@Emscor Group.com	Mike Caulfield for Bob Dates	The Poole & Kent Company ✓
* 1-11 (954) 931-5215	Paul Fasolo	GLOBETEC ?
* 954-590-3305 ROBERT SCHULTE @ GLOBETEC CONSTRUCTION.COM	ROBERT SCHULTE FAX # in demand star	GLOBETEC CONSTRUCTION
954-975-0388 / 954-975-3333 jbuckwalter@rjsullivancorp.com bmullen@rjsullivancorp.com	JASON BUCKWALTER BOB MULLEN	* RJ SULLIVAN CORP. ✓
727-442-7196 727-461-3827 dwehner@mckimcreech.com	DAVID WEHNER	* MCKIM & CREECH ✓
Steven Cruz Manatee County	Steven Cruz	MANATEE County
Chuck Froman 941-779-5811 x 5162 MCB	Chuck Froman	MCB-Util.
chuck.froman@mymanatee.org		
* ↓ SCANU220@WPC INT.COM	JOHN SCANU220 FAX in demand star	WPC INT

General Decision Number: FL100264 10/08/2010 FL264

Superseded General Decision Number: FL20080264

State: Florida

Construction Type: Heavy

County: Manatee County in Florida.

HEAVY CONSTRUCTION PROJECTS (Including Sewer and Water Lines)

Modification Number	Publication Date
0	03/12/2010
1	07/23/2010
2	10/08/2010

ELEC0915-003 12/01/2009

	Rates	Fringes
ELECTRICIAN.....	\$ 24.16	34%+\$0.22

\* ENGI0925-008 07/01/2010

	Rates	Fringes
POWER EQUIPMENT OPERATOR: Crawler Cranes; Truck Cranes; Pile Driver Cranes; Rough Terrain Cranes; and Any Crane not otherwise described below...\$ 27.91		10.59
Hydraulic Cranes Rated 100 Tons or Above but Less Than 250 Tons; and Lattice Boom Cranes Less Than 150 Tons if not described below.\$ 28.91		10.59
Lattice Boom Cranes Rated at 150 Tons or Above; Friction Cranes of Any Size; Mobile Tower Cranes or Luffing Boom Cranes of Any Size; Electric Tower Cranes; Hydraulic Cranes Rated at 250 Tons or Above; and Any Crane Equipped with 300 Foot or More of Any Boom Combination.....\$ 29.91		10.59
Oiler.....\$ 21.38		10.59

IRON0397-006 07/01/2010

	Rates	Fringes
IRONWORKER, STRUCTURAL.....	\$ 26.67	11.16

LABO0517-002 05/01/2008

	Rates	Fringes
LABORER: Grade Checker.....	\$ 17.20	5.47

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PAIN0088-008 07/01/2008

	Rates	Fringes
PAINTER: Brush, Roller and Spray.....	\$ 16.00	6.85

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SUFL2009-161 06/24/2009

	Rates	Fringes
CARPENTER.....	\$ 14.95	2.92
CEMENT MASON/CONCRETE FINISHER...	\$ 14.77	3.50
LABORER: Common or General.....	\$ 10.90	0.38
LABORER: Landscape.....	\$ 7.25	0.00
LABORER: Pipelayer.....	\$ 13.75	2.06
LABORER: Power Tool Operator (Hand Held Drills/Saws, Jackhammer and Power Saws Only).....	\$ 10.63	2.20
OPERATOR: Asphalt Paver.....	\$ 11.59	0.00
OPERATOR: Backhoe Loader Combo.....	\$ 16.10	2.44
OPERATOR: Backhoe/Excavator.....	\$ 15.00	0.52
OPERATOR: Blade/Grader.....	\$ 16.00	2.84
OPERATOR: Bulldozer.....	\$ 17.00	0.00
OPERATOR: Loader.....	\$ 14.75	0.00
OPERATOR: Mechanic.....	\$ 14.32	0.00
OPERATOR: Roller.....	\$ 10.76	0.00
OPERATOR: Scraper.....	\$ 11.00	1.74
OPERATOR: Trackhoe.....	\$ 20.92	5.50
OPERATOR: Tractor.....	\$ 10.54	0.00
TRUCK DRIVER: Lowboy Truck.....	\$ 12.73	0.00
TRUCK DRIVER: Off the Road Truck.....	\$ 12.21	1.97
TRUCK DRIVER: Dump Truck.....	\$ 11.00	0.00

WELDERS - Receive rate prescribed for craft performing operation to which welding is incidental.

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Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29 CFR 5.5(a)(1)(ii)).

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In the listing above, the "SU" designation means that rates listed under the identifier do not reflect collectively bargained wage and fringe benefit rates. Other designations indicate unions whose rates have been determined to be prevailing.

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WAGE DETERMINATION APPEALS PROCESS

1.) Has there been an initial decision in the matter? This can be:

- \* an existing published wage determination
- \* a survey underlying a wage determination
- \* a Wage and Hour Division letter setting forth a position on a wage determination matter
- \* a conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour Regional Office for the area in which the survey was conducted because those Regional Offices have responsibility for the Davis-Bacon survey program. If the response from this initial contact is not satisfactory, then the process described in 2.) and 3.) should be followed.

With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the Branch of Construction Wage Determinations. Write to:

Branch of Construction Wage Determinations  
Wage and Hour Division

U.S. Department of Labor  
200 Constitution Avenue, N.W.  
Washington, DC 20210

2.) If the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7).  
Write to:

Wage and Hour Administrator  
U.S. Department of Labor  
200 Constitution Avenue, N.W.  
Washington, DC 20210

The request should be accompanied by a full statement of the interested party's position and by any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3.) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board  
U.S. Department of Labor  
200 Constitution Avenue, N.W.  
Washington, DC 20210

4.) All decisions by the Administrative Review Board are final.

END OF GENERAL DECISION