Item No: 10

Report to the City Council
Council Meeting of July 12, 2016

Agenda Section: **Consent**

Subject: **Consideration and proposed approval of a resolution approving Contract Change Order No. 4 to the Construction Contract for Bell Canyon Reservoir – Install New Frame and Sluice Gate on Water Intake Tower, CIP Project W-84, with DRS Marine, Inc. in the amount of $31,922 to DRS Marine Inc. for critical repairs of the upper valve at Bell Canyon Reservoir Intake Tower**

CEQA Status: **Categorically Exempt, Section 15301, Existing Facilities**

Prepared By: **Tobias Barr, Public Works Project Manager**

Steven Palmer, PE, Director of Public Works/City Engineer

Approved By: **Noah Housh, Acting City Manager/Planning and Community Improvement Director** NH

BACKGROUND

On September 22, 2015 a contract was awarded to DRS Marine in the amount of $87,745.00 to install a new frame and sluice gate valve at the middle valve location on the intake tower at Bell Canyon Reservoir and a Notice-to-Proceed was provided. Following the Notice-to-Proceed, two No Cost Time Extension Change Orders were approved by the Director of Public Works for delays related to procuring and manufacturing the materials needed to complete the work. Following the installation of the mid valve, the dive crew from DRS Marine discovered that the upper valve on the intake tower was also not functional. Previously Public Works crews and regulators from the State of California Division of Dam Safety were under the impression that the upper valve was fully functional, however this was due to limitations in visibility as a result of the steel box and syphon covering the valve. DRS Marine provided an informal report to Public Works with photographs of the found conditions of the upper valve (Attachment 2). Following the discovery that the upper valve was not functioning properly, the Director of Public Works issued Contract Change Order No. 3 in the amount of $8,579.00 directing DRS Marine to perform a full inspection of the upper valve to determine if it could be repaired. The full inspection required DRS Marine remove a syphon and metal box which attached the syphon to the valve and tower. Following the removal of this hardware, DRS Marine performed a full inspection and determined the issues which caused the valve to fail. These include:

- The valve stem had been damaged and no longer able to open or close the valve.
- The valve gate had become detached from the guides because the lugs have corroded away, causing the valve remain open regardless of the position of the valve gate.
- The stem pipe section of the tower which holds the valve has corrosion holes which need to be patched.

Following DRS Marine's full inspection (included as Attachment 3) it was determined that the upper valve could be repaired and DRS Marine provided a quote for rebuilding the valve. This includes repairing one broken lug on the valve frame, refurbishing the slide gate and guides, epoxy patching corrosion holes on the stem pipe, and replacing the scour valve pipe. DRS Marine's quoted price for this work $31,922.

DISCUSSION

The valves on the intake tower are critical systems to the City's water supply. State of California Division of Safety of Dams requires intake tower valves be in working order so that flows can be controlled and managed. This is because during emergency conditions the reservoir may need to be drained rapidly or be closed off completely. Securing full control of all valves on the intake tower is required by regulators and allows operators to have maximum control of reservoir storage. Additionally fully functional valves is important to the quality of the City's water supply because it allows operators to pull water from different vertical locations along the intake tower at different times of the year, which can positively impact the water quality that is delivered to the City's water customers.

If approved the changes to the project would not impact the projects CEQA status. The project remains categorically exempt from the California Environmental Quality Act, pursuant to CEQA guidelines section 15301, Existing Facilities Class I which exempts the operation, repair, maintenance, and permitting of existing facilities.

FISCAL IMPACT

The estimated Project expenditure summary is provided in the table below.

Description	Approved Budget	Projected
Preliminary engineering and design	$ 98,179	$ 98,179
Construction management/inspection	$ 25,480	$ 25,480
Construction Contract	$ 87,745	$ 87,745
Construction Contingency (10%)	$ 8,775	
Contract Change Order No.1 (time only)		$ 0
Contract Change Order No. 2 (time only)		$ 0

Contract Change Order No. 3		$ 8,579
Contract Change Order No. 4		$ 31,922
Total	**$ 220,179**	**$ 251,905**

The increased budget has been included in the updated Five Year Capital Improvement Plan for 2016-2021 which is scheduled for adoption by the City Council at tonight's City Council meeting. If the updated Five Year Capital Improvement Plan for 2016-2021 is not approved by City Council tonight, separate action by City Council will be required to increase the project budget.

RECOMMENDED ACTION

Adopt attached resolution authorizing the Public Works Director/City Engineer to execute a Contract Change Order No. 4 with DRS Marine, Inc. in the amount of $31,922, bringing the total construction contract cost to $128,246 in order to complete the repairs of the upper and mid valves at the Bell Canyon Reservoir Intake Tower.

ATTACHMENTS

1. Resolution
2. Informal Inspection Findings of Bell Canyon Upper Valve
3. Full Inspection of Bell Canyon Upper Valve
4. Contract Change Order No. 4

CITY OF ST. HELENA

RESOLUTION NO. 2016-____

AUTHORIZING THE PUBLIC WORKS DIRECTOR/CITY ENGINEER TO EXECUTE CONTRACT CHANGE ORDER NO. 4 TO THE CONSTRUCTION CONTRACT FOR BELL CANYON RESERVOIR – INSTALL NEW FRAME AND SLUICE GATE ON WATER INTAKE TOWER, CIP PROJECT W-84, WITH DRS MARINE, INC. IN THE AMOUNT OF $31,922 FOR CRITICAL REPAIRS OF THE UPPER VALVE AT BELL CANYON RESERVOIR INTAKE TOWER

A. On September 22, 2015 City Council Awarded a construction contract with DRS Marine for the CIP Project W-84—Install New Frame and Sluice Gate on Water Intake Tower at Bell Canyon in the amount of $87,745; and

B. During construction repairing the middle valve, DRS Marine discovered the upper valve on the intake tower at the Bell Canyon Reservoir was not operable; and

C. The Public Works Director/City Engineer, using the approved 10% construction contingency budget, authorized DRS Marine to perform a full inspection of the intake tower upper valve at Bell Canyon Reservoir; and

D. Following the inspection DRS Marine determined they could repair the valve and provided a proposal to perform the work; and

E. The upper valve on the intake tower at the Bell Canyon Reservoir is critical for the reservoir's safety and water quality.

RESOLUTION

NOW, THEREFORE, the City Council of the City of St. Helena resolves as follows:

1. The Public Works Director/City Engineer is authorized the execute Contract Change Order No. 4 with DRS Marine in the amount of $31,922 for the repair of the intake tower upper valve at Bell Canyon Reservoir.

Approved at a Regular Meeting of the St. Helena City Council on July 12, 2016 by the following vote:

Mayor Galbraith: _____

Vice Mayor White: _____

Councilmember Crull: _____

Councilmember Dohring: _____

Councilmember Pitts: _____

APPROVED:

_____
Alan Galbraith
Mayor

ATTEST:

_____
Cindy Black
City Clerk

DRS MARINE INC.

COMMERCIAL DIVERS
DAMS, POWERHOUSES
U/W PILE REPAIRS
U/W BURNING & WELDING
ROVS

525 CHESTNUT STREET
VALLEJO, CA 94590
BUS: 707-648-3483
FAX: 707-648-2006
WWW.DRSMARINE.COM

COMPLETE DIVING SERVICES

BELL CANYON UPPER VALVE & SCOUR VENT

PREPARED FOR

CITY OF ST HELENA

MAY 31, 2016

DRS MARINE INC.

COMPLETE DIVING SERVICES

drsmarine@aol.com

525 Chestnut Street

Vallejo, CA 94590

PH 707/648-3483

FX 707/648-2006

5-31-2016

City Of St. Helena

ATTN: Tobias Barr
Public Works Project Manager
City of St. Helena,
1480 Main Street
St. Helena, CA 94574

RE: Bell Canyon upper valve & scour vent

Project site: Bell Canyon Reservoir
Date of work: 5-26-2016
Inspection Site: Bell Canyon upper valve
Conditions: 48" visibility

INTRODUCTION

DRS marine was contracted to replace the mid level gate valve at the Bell Canyon Reservoir. During the contract work it was noticed that the upper valve and valve cover box was completely rotten and inoperable. It was also noticed that the scour valve vent pipe is extremely corroded with holes in it. These holes make it so there will always be leakage behind the scour valve and the outlet pipe would never be able to be completely dewatered. This is an "FYI" Informal Report, to let you know the condition of the upper valve and scour vent pipe.
There was also a swim by done on the lower valve and it seemed to be intact. The only thing that was seen was the cover box and screen. The valve could not be seen because the cover box encapsulates it.

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1.0 UPPER VALVE

The upper valve is totally inoperable and out of its tracks. The valve stem is bent and the steel cover box and riser pipe extension are totally rotten leaving the inlet of the tower totally exposed to the open water were fish and debris can get in the water system.

GATE VALVE AND BENT STEM OFF OF THE TRACK

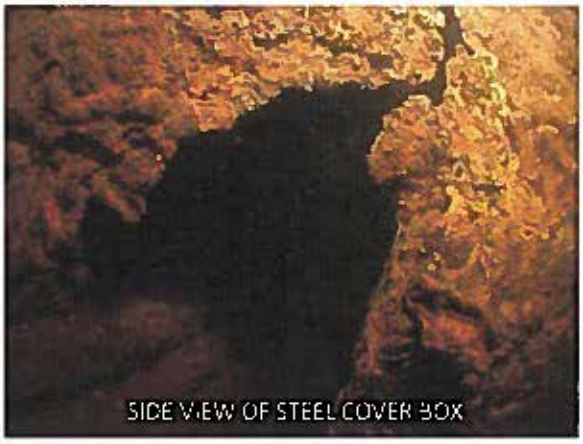
SIDE VIEW OF GATE VALVE OFF TRACK

TOP OF STEEL COVER BOX

TOP VIEW OF STEEL COVER BOX

1.0 UPPER VALVE.....*continued*

BOTTOM VIEW OF STEEL COVER BOX

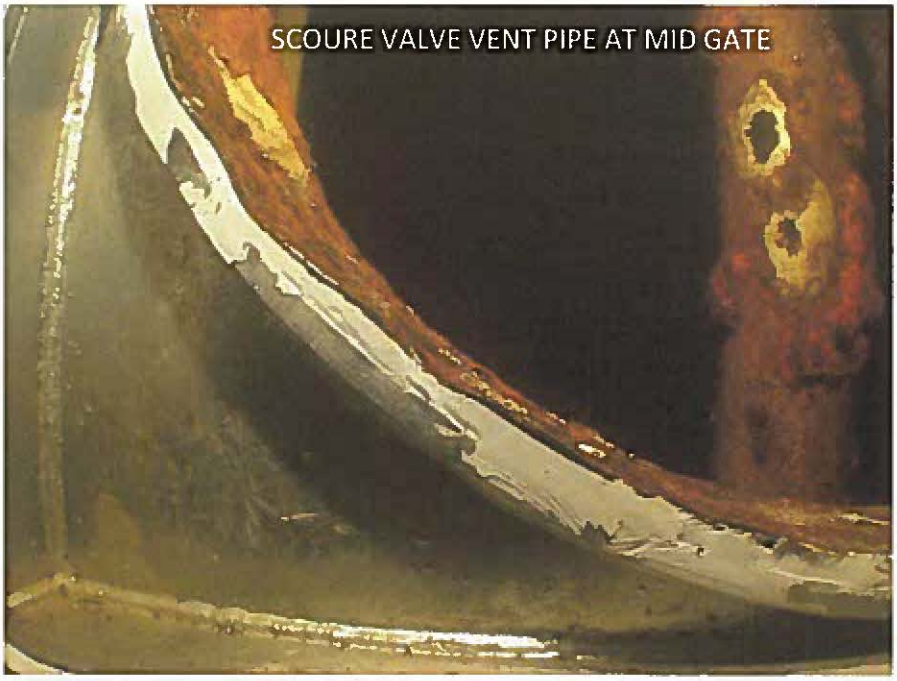


SIDE VIEW OF STEEL COVER BOX

INOPERABLE RISER INLET PIPE

2.0 Scour Valve vent pipe

The Scour valve vent pipe is badly corroded with rot holes. These holes make it so the scour valve outlet pipe would never be able to be dewatered because of the leakage in the vent pipe behind the valve.



3.0 Summary of repairs needed

- Remove rotten cover box and riser pipe
- Remove gate valve and bent stem
- Repair gate guides and get gate functioning again
- Repair stem and adjust stem guides
- Install a screen over valve
- Remove rotten scour valve vent pipe and replace it with new pipe

~ END OF REPORT ~

DRS MARINE INC.

COMMERCIAL DIVERS
DAMS, POWERHOUSES
U/W PILE REPAIRS
U/W BURNING & WELDING
ROVS

525 CHESTNUT STREET
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WWW.DRSMARINE.COM

COMPLETE DIVING SERVICES

BELL CANYON UPPER VALVE REPAIRS

CITY OF ST HELENA

June 15, 2016

DRS MARINE INC.

COMPLETE DIVING SERVICES

drsmarine@aol.com

525 Chestnut Street

Vallejo, CA 94590

PH 707/648-3483

FX 707/648-2006

6/27/2016

City Of St. Helena

ATTN: Tobias Barr
Public Works Project Manager
City of St. Helena,
1480 Main Street
St. Helena, CA 94574

RE: Upper valve inspection

Project site: Bell Canyon Reservoir
Date of work: 6-27-2016
Inspection Site: Bell Canyon outlet tower
Conditions: 1' to 4' visibility

INTRODUCTION

DRS marine was contracted to remove the upper gate valve that was corroded and not functioning to conduct a thorough inspection of damage. This is the findings of the diver's inspection.

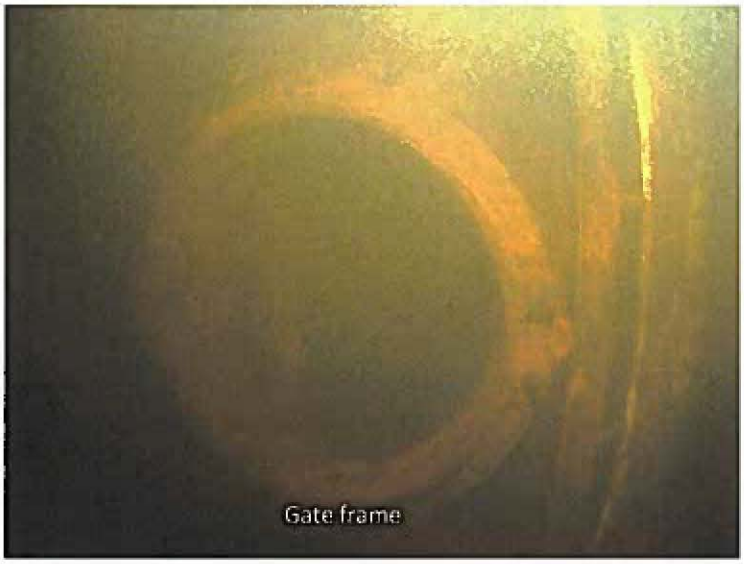
OBJECTIVE

The objective of removing the gate was to determine if repairs were possible.

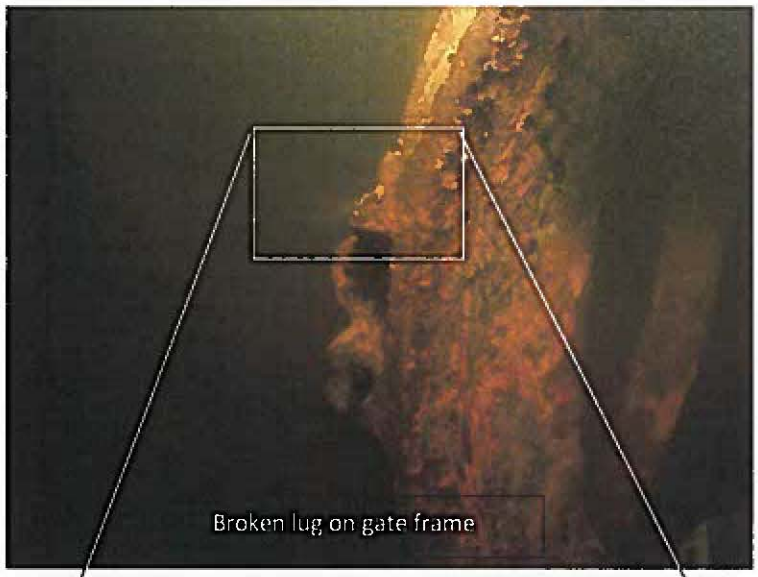
TABLE OF CONTENTS

1.0 Gate Valve

All the hardware of the gate valve was removed except the frame. The frame had one broken lug that could be repaired. The rest of the gate can be refurbished or replaced.

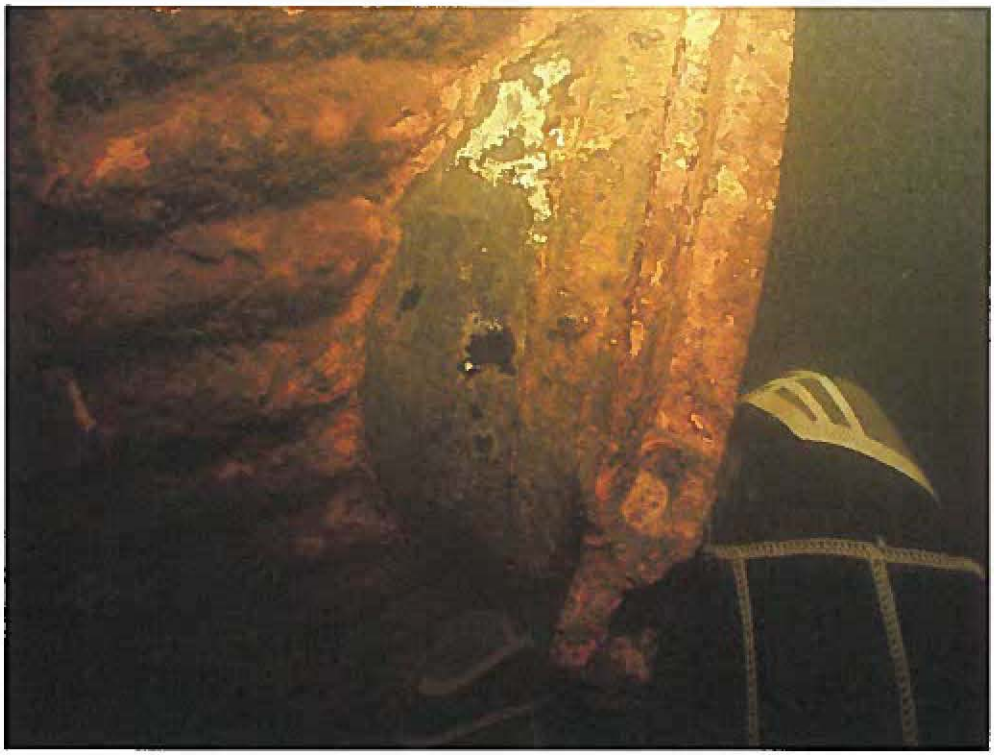


1.0 Gate Valve.....*continued*



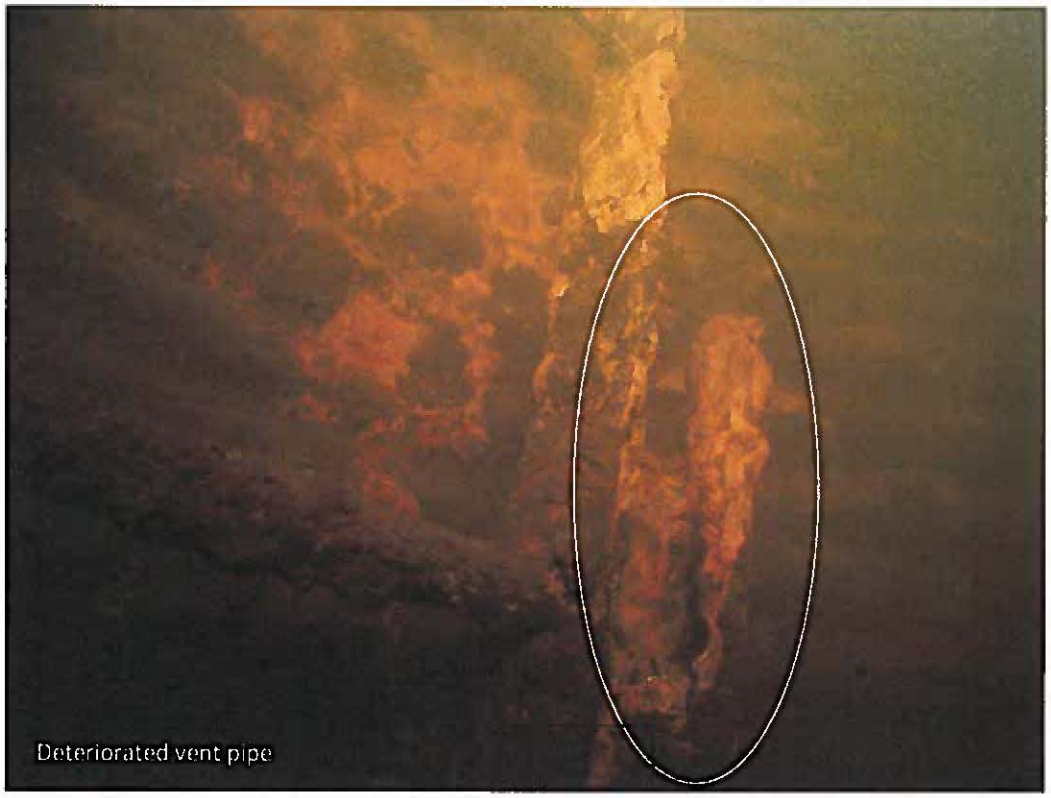
2.0 Stem Pipe

The stem pipe coming out of the tower has some corrosion holes at the 8 o'clock position but the rest of the pipe appears to be intact. These holes can be repaired with epoxy.



3.0 Scour Valve Vent Pipe

During the inspection it was found that the vent pipe was completely deteriorated. This prevents the capability of dewatering the scour valve pipe.



END OF REPORT

City of St. Helena
"We will conduct city affairs on behalf of our citizens using an open and creative process."

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ATTACHMENT 4

OFFICE OF THE DIRECTOR OF PUBLIC WORKS AND CITY ENGINEER

Change Order #4

To: DRS Marine
525 Chestnut Street
Vallejo, CA 94590

From: Tobias Barr, Project Manager

Date: July 13th 2016

Re: Change Order for Bell Canyon Sluice Gate Replacement CIP W-84

DRS Marine., you are directed to make the following changes to the Contract documents.

Item	Description	Units	Bid Qty	Final Qty	Difference	Unit Price	Net Change
1	Furnish a 3 man Dive Crew and all equipment in accordance with OSHA regulations and all materials to fabricate new parts for rebuilding of deteriorated gate, dogging system; frame; and all misc. parts and lower section of stem. Clean and sandblast gate and salvaged parts. Coat fabricated and reconditioned parts. Install newly rebuilt gate and stem section, adjust and test for function. Furnish a complete Quality Assurance Report with pictures of rebuilt gate. Include pictures of new parts prior to installation	LS	0	1	NA	$31,922	$31,922
						TOTAL	$31,922

Adjustment in Compensation:

Compensation for the additional work will not exceed $31,922. The revised contract total is $128,246.

Working Days

By reason of these proposed changes, an additional 25 days is granted. A total of 191 calendar days of extension will be allowed from the original project completion date, for a substantial completion date of August 9, 2016

SUBMITTED BY		
SIGNATURE	(PRINT NAME AND TITLE)	DATE
APPROVAL BY		
SIGNATURE	(PRINT NAME AND TITLE)	DATE

We, the undersigned contractor, have given careful consideration to the change proposed and agree, if this proposal is approved, to provide all labor and equipment, furnish all materials, and to perform all services necessary for the work above specified, and will accept as full payment, therefore, the prices shown above.

CONTRACTOR ACCEPTANCE BY:		
SIGNATURE	(PRINT NAME AND TITLE)	DATE