

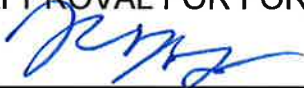
City of Calistoga

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Staff Report

TO: Honorable Mayor and City Council Members
FROM: Derek Rayner, Senior Civil Engineer
VIA: Michael Kirn, Public Works Director/City Engineer
DATE: September 2, 2014
SUBJECT: Consideration of a Resolution Finding a Local Emergency Pursuant to Sections 20168 and 22050 of the Public Contract Code and Authorizing the Expenditure of Funds for Emergency Corrective Action to the Dunaweal Wastewater Treatment Plant Wet Pit Effluent Pumps without Competitive Bidding

APPROVAL FOR FORWARDING:



Richard Spitler, City Manager

ISSUE:

Consideration of a resolution that finds:

1. The existing conditions associated with the failed effluent pumps at the Dunaweal Wastewater Treatment Plant constitute a local emergency and pose an immediate threat of serious harm to life, health and property without immediate corrective action;
2. The permanent repair to the Dunaweal Wastewater Treatment Plant effluent pumps is essential to the City's continued delivery of safe and sanitary operation of the Dunaweal Wastewater Treatment Plant and protection of life, health and public and private property and without permanent repairs to the effluent pumps there is an immediate threat of serious harm to life, health and property;
3. The condition of the failed effluent pumps described in the staff report provides substantial evidence that immediate expenditure of public funds is necessary in order to preserve and protect life, health and property;
4. The conditions described in the staff report will not allow for any delay resulting from a competitive solicitation for bids for immediate corrective action; and

- 21 5. Authorizes staff to negotiate purchase orders for the purchase and
22 installation of new Xylem/Flygt effluent pumps, modifications to the sewer
23 utility wet pit, and appurtenant changes to the electrical motor control
24 center.

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26 **RECOMMENDATION:**

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28 Adopt the recommended resolution.

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30 **BACKGROUND / DISCUSSION:**

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32 The existing E1 Wet Pit is located at the Dunaweal Wastewater Treatment Plant
33 (WWTP) near the down-valley side of the plant. The purpose of the E1 Wet Pit is
34 to pump 100% of the recycled (tertiary treated effluent) from the 20 MG storage
35 pond to either the Riverside Ponds for discharge to the Napa River or to the 10
36 MG recycled pond (see E1 Wet Pit photo below).

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39 *Photo 1 - E1 Wet Pit Valve and 20MG Pond*

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41 In 2003 the City upgraded the WWTP to produce tertiary treated recycled water.
42 One component of the upgrade was the construction of the E1 Wet Pit and
43 installation of the E1 Pumps. "PumpEx" submersible pumps were provided by the

44 contractor as an “or equal” pump. Over the past 10 years we have had to rebuild
45 these pumps twice due to water intrusion into the motor windings.

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47 Late last winter one of the two “PumpEx” pumps failed and we had to place our
48 emergency trailer mounted pump as a temporary replacement. The trailer
49 mounted emergency pump is a backup pump and not intended for full time use,
50 requiring constant refueling and is not connected to our SCADA system. This
51 emergency pump is also needed throughout the year to assist with other
52 emergency pumping situations that may occur – by dedicating it to this
53 application we risk not being able to address other emergency needs in WWTP
54 operations.

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56 Recently, the second “PumpEx” submersible pump failed and because of this
57 failure two permanent replacement pumps are required.

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59 The next two photos show the corrosion and poor condition that the pump and
60 discharge elbow are in. The other pump and elbow are in similar condition.

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Photo 2 - Failed PumpEx Submersible pulled from wet pit



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Photo 3 – Discharge Elbow Corrosion

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The E1 pumps are critical in our ability to pump and dispose of recycled water, either as river discharge or storage for future irrigation. Without permanent replacements there is a threat to public health and safety if the pumps are not in place before significant rains begin this winter. Without these pumps we cannot keep up with inflows, and there is potential for the WWTP to become hydraulically overloaded and discharge partially treated wastewater to the river.

Staff is recommending these pumps be replaced with two Xylem/Flygt (XF) submersible pumps. Staff is recommending XF pumps for several reasons. Our experience has been that XF pumps provide 15 to 20 years' of service life with little mechanical failure, significantly more than has been our experience with the Pumpex pumps.

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Most of the of the City's submersible pumps throughout town are XF. These pumps are reliable and staff is familiar with their operation and maintenance. Much of our inventory for motor controllers, SCADA, fuses, switches, and other

86 parts is XF. We are also pleased with their operation and customer support
87 service from their Fairfield office.

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89 The XF pumps and discharge elbow will come with an epoxy coating and
90 insulating flanges that will be installed to prevent electrolysis corrosion from
91 occurring. A sacrificial anode may also be installed to further protect these
92 pumps from corrosion.

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94 Staff is recommending that corrective repairs be made as soon as possible to
95 prevent potential problems associated with hydraulic overloading of the WWTP
96 and associated threat to life, health, property and public safety; and that the City
97 cannot afford the delay that would result from a traditional design and competitive
98 bid process. The lead time just to order the pumps and have them delivered is
99 approximately 9-12 weeks, which puts their installation into November – just
100 before the normal rainy season.

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102 Pursuant to sections 20168 and 22050 of the Public Contract Code and
103 emergency provisions in Chapter 3.34 of the Municipal Code it is recommended
104 that the City Council find there is a local emergency pursuant to Sections 20168
105 and 22050 of the Public Contract Code and authorize corrective repairs without
106 competitive bidding.

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108 **ALTERNATIVES:**

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110 The City Council could opt not to declare a local state of emergency and direct
111 staff to prepare plans and specifications and bid the pump replacement,
112 installation and wet pit modifications. Under this alternative the wet pit and
113 pumping capacity would not be corrected before this winter creating the potential
114 for the WWTP to become hydraulically overloaded and release of partially treated
115 wastewater into the Napa River. Staff would either rent or purchase temporary
116 portable pumps to minimize this potential as best as possible.

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118 **ENVIRONMENTAL ANALYSIS:**

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120 The corrective pump replacement and sewer utility wet pit modifications are
121 exempt from the California Environmental Quality Act, pursuant to Section 15269
122 (b and c) of Title 14, the California Code of Regulations because the repairs are
123 necessary to prevent or mitigate the state of emergency that currently exists, and
124 to repair publicly owned sewer facilities to maintain services that are essential to
125 public health, safety and property.

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131 **CONSISTENCY WITH CITY COUNCIL GOALS AND OBJECTIVES:**

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133 This project is consistent with Goal No. 3, Establish, improve and maintain City
134 infrastructure; and Objective No. 1, maintain the high level of service and
135 reliability of the City's infrastructure systems and facilities.

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137 **FISCAL IMPACT:**

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139 Funding for the recommended project has been included in the FY 14/15
140 Wastewater Capital Improvement (effluent disposal improvements) budget (13-
141 5493) in the amount of \$150,000. The requested authorization is within these
142 budget limits.

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144 **ATTACHMENT**

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1. Resolution

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RESOLUTION 2014-XXX

**RESOLUTION OF THE CITY COUNCIL OF THE CITY OF CALISTOGA,
COUNTY OF NAPA STATE OF CALIFORNIA, FINDING A LOCAL EMERGENCY
PURSUANT TO SECTION 20168 AND 22050 OF THE PUBLIC CONTRACT
CODE AND AUTHORIZING THE EXPENDITURE OF FUNDS FOR EMERGENCY
REPAIRS TO THE DUNAWEAL WASTEWATER TREATMENT PLANT WET PIT
EFFLUENT PUMPS WITHOUT COMPETITIVE BIDDING**

WHEREAS, the existing wet pit submersible effluent pumps (effluent pumps) installed as part of the 2003 Dunaweal Wastewater Treatment Plant (WWTP) upgrade have recently failed; and

WHEREAS, staff has installed emergency temporary pumping equipment which will not be able to handle peak wet weather flows and the effluent pumps need to be replaced prior to these anticipated flows; and

WHEREAS, the effluent pumps convey all of the tertiary treated recycled water to the disposal facilities and serve all residents and businesses in Calistoga and without them the plant will not be able to properly function during high flow conditions; and

WHEREAS, the effluent pumps are critical and vital in the ability for the WWTP to handle the peak winter inflows and prevent the WWTP from becoming hydraulically overloaded and discharging partially treated wastewater; and

WHEREAS, the Public Works Department has determined that the uncertainty of not taking permanent corrective action, and that a temporary repair or rebuilding the existing effluent pumps is not practical and does not address the potential for threat to public health and safety from the failed effluent pumps; and

WHEREAS, for these reasons the effluent pumps must be repaired as soon as possible to return the WWTP operations to pre-pump failure conditions, and the City cannot wait for the delay that would result from a competitive bid process; and

WHEREAS, the Public Works Department has identified that Xylem/Flygt pumps are the predominate wastewater and sewer pumps used in the City and that Xylem/Flygt has consistently provided quality operation and customer support service from their Fairfield office and that Xylem/Flygt submersible effluent pumps are capable of meeting the WWTP anticipated wet weather flow conditions; and

WHEREAS, the FY 2014/15 Wastewater Capital Improvement budget (13-5493) has sufficient funds to fund this project.

NOW, THEREFORE, BE IT RESOLVED, the City Council hereby finds:

1. The existing conditions associated with the failed effluent pumps at the Dunaweal

47 Wastewater Treatment Plant constitute a local emergency and pose an immediate
48 threat of serious harm to life, health and property without immediate corrective
49 action.

50 2. The permanent repair to the Dunaweal Wastewater Treatment Plant effluent
51 pumps is essential to the City's continued delivery of safe and sanitary operation of
52 the Dunaweal Wastewater Treatment Plant and protection of life, health and public
53 and private property and without permanent repairs to the effluent pumps there is
54 an immediate threat of serious harm to life, health and property.

55 3. The condition of the failed effluent pumps described in the staff report
56 accompanying this resolution provides substantial evidence that immediate
57 expenditure of public funds is necessary in order to preserve and protect life, health
58 and property.

59 4. The conditions described in the staff report accompanying this Resolution will not
60 allow for any delay resulting from a competitive solicitation for bids for immediate
61 corrective action.

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63 **BE IT FURTHER RESOLVED**, pursuant to sections 20168 and 22050 of the Public
64 Contract Code, and pursuant to emergency provisions in Section 3.2 the City Municipal
65 Code, the City Council of the City of Calistoga hereby authorizes staff to negotiate orders
66 for the purchase and installation of new Xylem/Flygt effluent pumps, modifications to the
67 sewer utility wet pit, and appurtenant changes to the electrical motor control center.

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69 **BE IT FURTHER RESOLVED** that the City Manager is authorized to execute the
70 Purchase Orders and staff is otherwise directed to replace the effluent pumps and restore
71 the wet operations.

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73 **PASSED, APPROVED, AND ADOPTED** by the City Council of the City of Calistoga
74 at its regular meeting held this 2nd day of September 2014 by the following vote:

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76 **AYES:**
77 **NOES:**
78 **ABSTAIN:**
79 **ABSENT:**

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81 _____
82 **CHRIS CANNING, Mayor**

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84 **ATTEST:**

KATHY FLAMSON, Deputy City Clerk