STORM WATER PUMP STATIONS - OPERATIONS FALL 2015
COST ESTIMATES FOR EMERGENCY REPAIRS AND SERVICE

6A

Minnis Pump Station

Concerns: No back up power, floods corporation yard, aging infrastructure, electrical safety issues (if raining concerns about worker exposure), Bart impacts/concers unsure because and 18" overflow stormwater discharge pipe is now discharge into pump station wet well

Items	Cost Estimate	Total	Priority
Pull 2 pumps inspection	$4000/pump	$ 8,000	1
Rebuild pump(s) - bearing/seals	$20000-25000/pump	$ 25,000	1
Cost of new Pump	$35,000	$ 35,000	2
New Guiderails (both pumps)	$4000-5000/pump	$ 10,000	1
Motor Starter (both pumps)	$2000/pump	$ 4,000	1
Automatic Transfer Switch installation and configuration			
Peripheral Hook ups - size up for 2 -150 HP pumps	$50,000	$ 50,000	1
		$ 132,000	
Genset rental (united rental) (Nov 2015-2016) 175-200 KW	$5000/month	$ 25,000	1

Jurgens Pump Station

Concerns: Engines are overtemping and shutdown and we need all four when it rains. 2 of the 4 pumps are overheating and ventilation is poor causing additional temperature impacts. Unknown the impacts that Bart development has on this pump station as it is is close proximity/upstream of this pump station. Jurgens pump station is only sized for 10 year flood, per the Stormwater Master Plan, the playground and surrounding ball fields are intended to be drainage and flood plains for the pump station. Therefore together the pump station and surrounding land meets the 100 year flood requirements. No back up power and needs to run in an emergency.

Items	Cost Estimate	Total	Priority
Complete engine service with hopes to fix overtemping	flat amount	$ 10,000	1
Generator purchase and controls	$5,000	$ 5,000	1
		$ 15,000	

Manor Pump Station

Concerns:4 pumps total, (1 jockey), 3-4 pumps overtemping and as a result the pumps will shutdown until an operator goes to site and resets the pumps. This issue has gotten progressively worse, and if an operator is not there in a timely fashion, flooding will occur a jacklin and redwood. To complicate the pump station experience significant head pressure due to the creek since the discharge point is below the waterline during high creek levels due to rain.

Items	Cost Estimate	Total	Priority
Pull 3-4 pumps for inspection	$4000/pump	$ 16,000	1
Worse case - Rehab pumps	$20000-25000/pump	$ 100,000	1
		$ 116,000	

Bellew Pump Station

Concerns: Removing Leaking UST (now) as that is fuel for back up power, hope to have done by mid November. Currently expereincing VFD (variable frequency drive) malfunction/failure on 1 pump.

Items	Cost Estimate	Total	Priority
UST Remove and retrofit back up power	$97,035	$ 97,035	1
VFD failure (pump is inoperable until fixed)	$7,500	$ 7,500	2
		$ 104,535	

California Circle Pump Station

Concerns: Engine controls are aging and are currently on manual. There is automation however it is malfunctioning, and there is no jockey pump to help buy operations staff time to respond to the site.

Items	Cost Estimate	Total	Priority
Automation Controls -fixed	$2500/pump	$ 7,500	1
		$ 7,500	

Spence Creek Pump Station

Concerns: Pump station is non-operational, has level control problems. Currently it identified as a high prioirty site in the Stormwater Master plan, since it has no back up power. We haven't experienced any flooding yet, but it is highly suspectible to flood.

Items	Cost Estimate	Total	Priority
Pull pumps and inspection	$4000/pump	$ 12,000	2
Level control strategy needs to be fixed	$10,000	$ 10,000	2
		$ 22,000	
Contingency for Repairs (20%)		$ 84,407	
Project Management & Technical Support (10%)		$ 50,644	
TOTAL COSTS		$ 557,086	

*6B

City of Milpitas, California

BUDGET CHANGE FORM

Type of Change	From		To	
	Account	Amount	Account	Amount
Check one:	330-2931	$557,086	400-423-4241 450-423-4241	$278,543 $278,543
☒ Budget Appropriation				
☐ Budget Transfer				

Explain the reason for the budget change:

Background: In July 2013, a comprehensive update of the City's Storm Drain Master Plan ("SDMP") was completed by Schaaf & Wheeler Consulting Civil Engineers. This plan took a comprehensive approach in evaluating storm drain system performance and future storm water infrastructure needs. The SDMP focuses on the City's drainage system, including thirteen critical storm water pump stations. The City of Milpitas Public Works Department operates and maintains these thirteen (13) storm water pump stations.

Six Pump Stations - Emergency Repairs:
In preparation for the 2015 winter season, City staff reviewed the SDMP and performed additional site condition assessment of each pump station, and determined six (6) of the thirteen (13) pump stations are in need of emergency repairs and service. The six pump stations needing emergency repair and service include: Minnis Pump Station, Jurgens Pump Station, Manor Pump Station, Bellew Pump Station, California Circle Pump Station and Spence Creek Pump Station. The repairs and service required for these sites include, but are not limited to: pump inspection, minor pump maintenance, pump bearing and seal replacement, automated control strategy, backup power retrofits, installation of new pumps, variable frequency drive repair/replacement, and generator installation. Due to the short time frame before the start of the rainy season, staff requests that the City Council authorize the emergency repairs of these six pump stations. The Bellew Pump Station is already under emergency repair.

Cost Estimate and Analysis:
The preliminary cost estimate for these emergency repairs are found in the attachment, "Storm Water Pump Station – Fall 2015, Cost Estimates for Emergency Repairs and Service". The total estimated amount of emergency repairs required for these six pumps stations is $557,086.00. The attached cost estimate includes a 20% contingency and a 10% project management fees to provide technical support for these repairs to ensure completion prior to winter. $104,535.00 of the total estimate is for the emergency repair work currently underway at Bellew Pump Station.

Report on Emergency Repairs for Bellew Pump Station:
The Bellew Pump Station has an underground storage tank containing diesel fuel which is leaking into secondary contaminant and needs to be removed immediately. In the event that electrical power is lost to the site, this tank is used to provide back-up power to the storm pump station site. The work for this repair is currently underway to limit environmental dispersion and/or liability to the City. The emergency work for Bellew Pump Station includes removal of the fuel, the tank and retrofitting the existing generator.

Fiscal Impact: There is sufficient funds in the amount of $557,086.00 in the General Government CIP Fund to fund these repairs. Staff is requesting $557,086.00 be appropriated to the Public Works Utilities Maintenance - Repair and Maintenance budget as follows: 400-423-4241 ($278,543) and 450-423-4241 ($278,543).

Recommendations:

1) Approve the Emergency Repairs of Six Storm Pump Stations for the not-to-exceed amount of $557,086.00 and appropriate funds from the City's General Government CIP Fund to the Public Works Utilities Maintenance Repair and Maintenance Budget.

2) Receive the Report on Emergency Repairs of Bellew Pump Station.

☒ Check if City Council Approval required.	Meeting: Sept 1st 2015

Itemization of funds, if needed:		Amount
Requested by:	Department Head: Nina Hawk, Public Works Director	Date:
Reviewed by:	Finance Director: [signature]	Date: 8/28/15
Approved by:	City Manager:	Date:
Date approved by City Council, if required:		Confirmed by:

FI/24786/V

Form 30-222 (Rev. 1/92)