



# Reducing Pump Installation and Operating Costs

## Case Study Twin Hills Pump Station

# Twin Hills Pump Station

## OBJECTIVES OF PUMP UPGRADE:

- Replace pump that had frequent clogging problems
- Minimize installation costs due to budget constraints



# Twin Hills Pump Station

- Pump station built in 1970's
- 4" discharge sewage pumps with enclosed impellers
- Pumps rated for 400 GPM @ 88 FT TDH





# Twin Hills Pump Station

## THE PROBLEM: Wasted man hours clearing clogged pumps

Pump Maintenance Twin Hills Pumping Station

DATE/TIME	EMPLOYEE	CONDITION	COMMENTS
1-27-15	JR/JP	Plugged Rags	#2
1-16-15	JR-JP	Plugged	#2
2-20-15	JR-JP	Plugged	#2
1-11-16	JR-KC	Plugged	#2
1-12-16	EM-JP	Rags	#1
1-14-16	EM-JR	Rags	#2
1-17-16	JP-SS	Rags	#2
1-18-16	EM-SS	Rags	#2
1-26-16	EM-JR	Rags	#1
1-31-16	JR/JP	Plugged	#2
2-20-16	JR/JP	Plugged	#2
2-24-16	EM/SS	Plugged	#1
2-29-16	JP/SS	Plugged	#2
2-29-16	EM/SS	Plugged	#1
3-7-16	EM/SS	Plugged	#1
3-12-16	JR/JP	Plugged	#2
3-21-16	JR/JP	Plugged	#2
3-26-16	KC/EM	Rags	#2
3-30-16	JP/JR	Rags	#1
4-12-16	JR/JP	Rags	#2
4-7-16	JR/JP	Rags	#2
4-18-16	JP/JR	Rags	#1
4-19-16	JP/JR	Rags	#2
4-28-16	JP/SS	Rags	#1
5-10-16	JP/JR	Rags	#2
5-13-16	JP/JP	Rags	#2
5-20-16	JP/SS	Rags	#2
5-21-16	JP/SS	Rags	#1
5-27-16	JR/EM	Rags	#2
6-3-16	JP/JR	Rags	#2
6-6-16	JP/JR	Rags	#2
6-10-16	JP/JR	Rags	#1
6-11-16	JP/SS	Rags	#2
6-21-16	JP/SS	Rags	#2
6-23-16	JP/JR	Rags	#1
6-25-16	JR/JP	Rags	#2

Pump Maintenance Twin Hills Pumping Station

DATE/TIME	EMPLOYEE	CONDITION	COMMENTS
6/29/16	JP/JR	Rags	#2
6/30/16	JP/JR	Rags	#1
7/5/16	JP/JR	Rags	#2
7/6/16	JP/JR	Rags	#1
7/11/16	JP/JR	Rags	#1
7/14/16	JP/JR	Rags	#2
7/20/16	JP/JR	Rags	#2
7/21/16	JP/EM	Rags	#1
7/29/16	JP/JR	Rags	#2
8-4-16	EM/SS	Rags	#1
8/6/16	JR/JP	Rags	#2
8/11/16	EM/SS	Rags	#2
8-12-16	EM/SS	Rags	#1
8-28-16	KC/JP	Rags	#1
8-31-16	EM/SS	Rags	#2
9-1-16	KC/SS	Rags	#1
9/5/16	EM/JP	Rags	#2
9-7-16	Cleaned Check valve		#1/#2
9-25-16	SS/JR	Rags	#2
9-29-16	EM/SS	Rags	#2
10/9/16	JR/JP	Rags	#2
10/18/16	EM/KC	Rags	#1
10/21/16	KC/EM	Rags	#2
10/24/16	EM/SS	Rags	#2
10-26-16	EM/SS	Rags	#2
11-5-16	JP/SS	Rags	#2
11/19/16	JP/JR	Rags	#2

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## PROPOSED SOLUTION

- **Purchase new pump with semi-open impeller designed to pass rags and 3” diameter solids.**
  - **Pump manufacturer offered a no-risk trial period. Pump could be returned at no charge if clogging problem was not solved.**
  
- **Install pump using all in-house WPCA personnel**
  - **Complete mechanical and electrical installation plan developed by team of WPCA staff and the local pump distributor.**

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## INSTALLATION



# Twin Hills Pump Station

## INSTALLATION





# Twin Hills Pump Station

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**SUCCESS!**





“The Best I’ve  
Seen in 35 Years in  
the Business”

Going the extra mile

Kevin Cini  
Chief Plant Operator, City of  
Groton, Connecticut

*“Like many treatment plants, we had constant issues with debris in our waste stream. There were two pumps clogging non-stop, requiring excessive repair six times every week. And that meant lots of wasted time and labor.”*

*“Then we were introduced to the Sulzer’s submersible sewage pumps type ABS XFP with the Contrablock Plus impeller. It has the best blockage protection I have ever seen. The pump was up and running in just days, and we haven’t had a clog since.”*

*“And Sulzer made installation a breeze. With their distributors, they spent hours here providing us with technical expertise we needed to do the work ourselves, saving our city a lot of money.”*

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booth # 2012



Sulzer’s submersible sewage pumps type ABS XFP are built with regional manufacturing, including in the USA, and come with a comprehensive 5-year warranty for municipal applications.



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[sulzer.com/extramile](http://sulzer.com/extramile)

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