

Appendix C-2: Survey Sheet of Pump Station (Portmore)

Edgewater 1

Bridge View

Christian Pen

Garvey Mead

Meadowvale

Marine Park

Caymanas Garden D

West Bay A

Edgewater 2

Caymanas Park

Bridgeport

Portmore Mall

Cumberland

Passagefort #3

Passagefort #2

Passagefort #1

Westchester

Survey Sheet of Pump Station

Survey Date: 25/08/2009

Surveyor: Mr. Odean Samuels, Mr. Kristoffer Henry

Items		Specification	
Name of Pump Station		Edgewater 1 Pump Station	
Construction Year / Month		year :	month :
Location (name of street / avenue)		Jacqueline Avenue	
Design capacity		m ³ /min	
Amount of electricity consumption		kWh/day	
Inlet Sewer	Diamete of inlet pipe	101.6 mm	by Gravity / Pressure
	Material of pipe	Reinfroced Concrete / <u>Steel</u> / Cast Iron / PVC / GRP / PE(HDPE)	
	Invert level of inlet pipe	m MSL	
Pump Unit	Number of units 1 units in service 2		
	0 Units out of service		
	Type of pump	Self Priming Centrifugal Pump	
	Manufacturer of pump / Model	(name: Gorman Rupp)	
	Bore diameter of pump unit	101.6	
	Design capacity per unit (m ³ /min)		
	Design head of pump (m)		
	Back up generator	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Pump Operation	Operation Hour	24 hours	
	Control Method	<input checked="" type="checkbox"/> by Unit /	<input type="checkbox"/> by Speed
	Mode of control	<input checked="" type="checkbox"/> Automatic level switch /	<input type="checkbox"/> Other method
	On - Off level	1st pump start level	m MSL
		2nd pump start level	m MSL
		3rd pump start level	m MSL
		Pump stop level	m MSL
Maintenance Record	Regular Maintenance / Inspection	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
		(If yes, how frequenc; inspected daily by NWC's mobile maintenance team)	
	Repair / replacement of pump unit	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
		(If yes, in which year:)	
	Replacement of consumable parts	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
	(If yes, how frequenc; Monthly)		
Present Issue			
The present issue that this pump station faces is its lack of a back-up generator facility.			

Photographs

General view of PS (2-3 shots)

Pump unit (general, front view, side view, tag)

Control panel (general view of control room, front view on panel)

Other (generator etc)



General over view of the facility at Edge water pumping station



General piping network at the Edge Water pumping station



Inlet piping to the pumping unit



picture depicting the drive motor condition

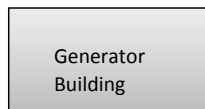
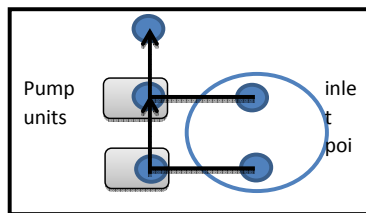


picture showing outlet point

outlet point



View of the automatic level switch



Survey Sheet of Pump Station

Survey Date: 25/08/09

Surveyor: Mr. Odean Samuels, Mr. Kristoffer Henry

Items		Specification	
Name of Pump Station		Bridge view Pumping Station	
Construction Year / Month		year :	month :
Location (name of street / avenue)		Mahoe Dr.	
Design capacity		m ³ /min	
Amount of electricity consumption		kWh/day	
Inlet Sewer	Diameter of inlet pipe	101.6 mm	by Gravity / Pressure
	Material of pipe	Reinforced Concrete / Steel / Cast Iron / PVC / GRP / PE(HDPE)	
	Invert level of inlet pipe	m MSL	
Pump Unit	Number of units in service 1		
	1 Units out of service		
	Type of pump	Self Primming Centrifugal Pump	
	Manufacturer of pump / Model		
	Bore diameter of pump unit		
	Design capacity per unit (m ³ /min)		
	Design head of pump (m)		
	Back up generator	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Pump Operation	Operation Hour	24 hours	
	Control Method	<input checked="" type="checkbox"/> by Unit / <input type="checkbox"/> by Speed	
	Mode of control	<input checked="" type="checkbox"/> Automatic level switch / <input type="checkbox"/> Other method	
	On - Off level	1st pump start level	m MSL
		2nd pump start level	m MSL
		3rd pump start level	m MSL
	Pump stop level	m MSL	
Maintenance Record	Regular Maintenance / Inspection	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
		(If yes, how frequency:)	
	Repair / replacement of pump unit	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
		(If yes, in which year:)	
	Replacement of consumable parts	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
		(If yes, how frequenc; Monthly)	
<p>Present Issue</p> <p>This Pumping station as with the others have no screen at the in let so inlet line tends to get blocked more frequently. Again there was no back up generator eventhough the necessary facilities were in place.</p> <p>The Bridge Veiw station serves it immediate environment and pumps to the Edgewater 2 station then to Bridgeport plant</p> <p>General condition of the facility and the equipments are relatively good.</p>			

Photographs

General view of PS (2~3 shots)

Pump unit (general, front view, side view, tag)

Control panel (general view of control room, front view on panel)

Other (generator etc)



Building housing all the electrical, which should



Outside cover to wet well of the Bridge View Pumping



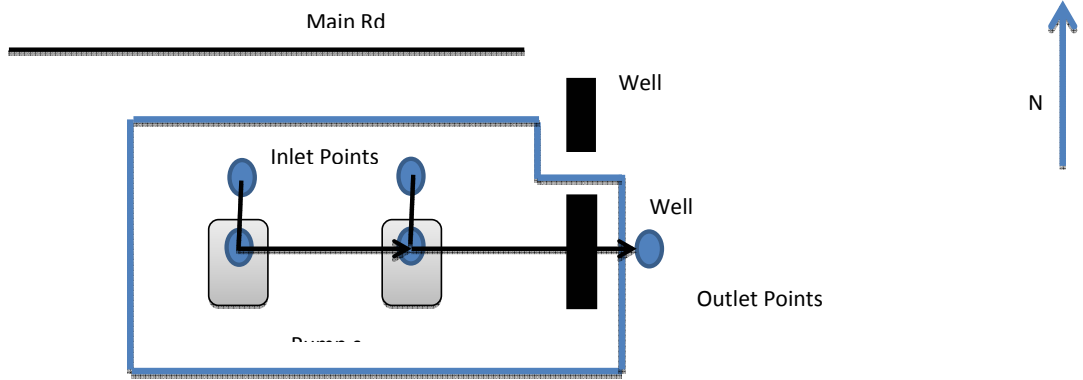
condition of the Wet well at the



Condition of inside the actual Pump Building



General piping layout at the Bridge View pumping station



Survey Sheet of Pump Station

Survey Date: 24/08/09

Surveyor: Mr. Odean Samuels, Mr. Kristoffer Henry

Items		Specification
Name of Pump Station		Christian Pen
Construction Year / Month		year : month :
Location (name of street / avenue)		Gregory Park Rd.
Design capacity		m ³ /min
Amount of electricity consumption		kWh/day
Inlet Sewer	Diamete of inlet pipe	76.2 mm by Gravity/ Pressure
	Material of pipe	Reinforced Concrete / Steel/ Cast Iron / PVC / GRP / PE(HDPE)
	Invert level of inlet pipe	m MSL
Pump Unit	Number of units 2 units in service 1	
	1 Units out of service	
	Type of pump	Self Primming Centrifugal Pump
	Manufacturer of pump / Model	
	Bore diameter of pump unit	76.2 mm
	Design capacity per unit (m ³ /min)	
	Design head of pump (m)	
	Back up generator	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Pump Operation	Operation Hour	24 hours
	Control Method	<input checked="" type="checkbox"/> by Unit / <input type="checkbox"/> by Speed
	Mode of control	<input checked="" type="checkbox"/> Automatic level switch / <input type="checkbox"/> Other method
	On - Off level 1st pump start level	m MSL
	2nd pump start level	m MSL
	3rd pump start level	m MSL
	Pump stop level	m MSL
Maintenance Record	Regular Maintenance / Inspection	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No (If yes, how frequenc: bi-monthly)
	Repair / replacement of pump unit	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No (If yes, in which year: Jan. 2009)
	Replacement of consumable parts	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No (If yes, how frequenc: monthly)
Present Issue Lack of maintenance resulted in the lack of information gathered site visit of the pump station at the christian pen		

*Preparation Survey for
Kingston Sewerage Development Project*

Photographs

- General view of PS (2~3 shots)
- Pump unit (general, front view, side view, tag)
- Control panel (general view of control room, front view on panel)
- Other (generator etc)



existing pump station at the Christian Pen



Single pump in use as per norm with respect to the



Pictures showing the pump which is currently out of service



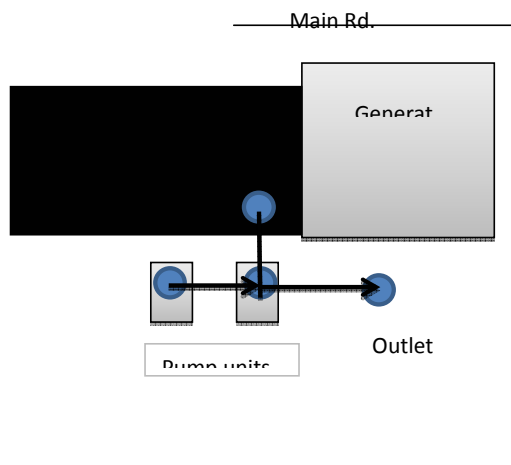
Picture depicting wet well condition



Building containing electricals and the



From the main road the general condition of the pumping station covered in vegetation



Survey Sheet of Pump Station

Survey Date: 25/08/2009

Surveyor: Mr. Odean Samuels, Mr. Kristoffer Henry

Items		Specification	
Name of Pump Station		Garvey Mead	
Construction Year / Month		year :	month :
Location (name of street / avenue)		Germaine Rd.	
Design capacity		m ³ /min	
Amount of electricity consumption		kWh/day	
Inlet Sewer	Diamete of inlet pipe	152.4 mm	by <u>Gravity</u> / Pressure
	Material of pipe	Reinforced Concrete / Steel / Cast Iron / PVC / GRP / PE(HDPE)	
	Invert level of inlet pipe	m MSL	
Pump Unit	Number of units in service	2	
	Units out of service	0	
	Type of pump	self primming centrifugal pump	
	Manufacturer of pump / Model	(name: Gorman Rupp)	
	Bore diameter of pump unit	152.4	
	Design capacity per unit (m ³ /min)		
	Design head of pump (m)		
	Back up generator	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Pump Operation	Operation Hour	24 hours	
	Control Method	<input checked="" type="checkbox"/> by Unit / <input type="checkbox"/> by Speed	
	Mode of control	<input checked="" type="checkbox"/> Automatic level switch / <input type="checkbox"/> Other method	
	On - Off level	1st pump start level	m MSL
		2nd pump start level	m MSL
		3rd pump start level	m MSL
		Pump stop level	m MSL
Maintenance Record	Regular Maintenance / Inspection	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
		(If yes, how frequenc: inspected bi-weekly by NWC's mobile maintenance team)	
	Repair / replacement of pump unit	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
		(If yes, in which year: 2008)	
	Replacement of consumable parts	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
	(If yes, how frequenc: approximately every two months)		
Present Issue			
<p>General issues as with all pumping station is that a lack of electrical maintenance is carried out hence there is currently no back up generator, eventhough the necessary facilities are in placed for the standby generator.</p> <p>With respect to maintenance at the Garvey Mead pumping station a newly motor was installed and connected to the back up generator.</p>			

Photographs

- General view of PS (2~3 shots)
- Pump unit (general, front view, side view, tag)
- Control panel (general view of control room, front view on panel)
- Other (generator etc)



Building housing all the electrical, which should



Image showing the general set up of the pipe network at the



image showing the pipe to pump connection for the outlet pipes



Image showing the automatic level switches

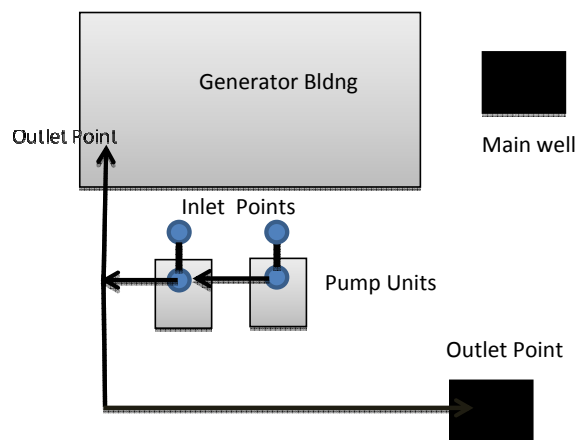


Image showing the electrical



Image showing both pumps at the station

Main Rd



Survey Sheet of Pump Station

Survey Date: 25/08/2009

Surveyor: Mr. Odean Samuels, Mr. Kristoffer Henry

Items		Specification
Name of Pump Station		Meadowvale Pump Station
Construction Year / Month		year : month :
Location (name of street / avenue)		Caymanas Blvd./ Hillsdown Drive
Design capacity		m ³ /min
Amount of electricity consumption		kWh/day
Inlet Sewer	Diamete of inlet pi	101.6 mm by <u>Gravity</u> / Pressure
	Material of pipe	Reinfroced Concrete / <u>Steel</u> / Cast Iron / PVC / GRP / PE(HDPE)
	Invert level of inlet pipe	m MSL
Pump Unit	Number of units 1 units in service 1	
	1 Units out of service	
	Type of pump	Self Priming Centrifugal Pump
	Manufacturer of pump / Model	(Name: Gorman Rupp)
	Bore diameter of pump unit	101.6
	Design capacity per unit (m ³ /min)	
	Design head of pump (m)	
	Back up generator	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Pump Operation	Operation Hour	24 hours
	Control Method	<input checked="" type="checkbox"/> by Unit / <input type="checkbox"/> by Speed
	Mode of control	<input checked="" type="checkbox"/> Automatic level switch / <input type="checkbox"/> Other method
	On - Off level 1st pump start level	m MSL
	2nd pump start level	m MSL
	3rd pump start level	m MSL
	Pump stop level	m MSL
Maintenance Record	Regular Maintenance / Inspection	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No (If yes, how frequenc; inspected daily by NWC's mobile maintenance team)
	Repair / replacement of pump unit	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No (If yes, in which year:)
	Replacement of consumable parts	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No (If yes, how frequenc; Monthly)
	Present Issue	
	<p>General issues as with all pumping station is that a lack of electrical maintenance is carried out hence there is currently n rator, eventhough the necessary facilities are in placed for the standby generator. The level of security at the site can be i</p>	

Photographs

General view of PS (2-3 shots)

Pump unit (general, front view, side view, tag)

Control panel (general view of control room, front view on panel)

Other (generator etc)



Building housing the electricals and the back up motor



electrical panels inside the



Motor for the back up generator inside the building



wet well outside and the automatic level switches



The general piping network outside the electrical building



back up generator inside the building

