# Appendix C-3: Survey Sheet of Sewerage Treatment Plant (KSA)

- (i) Hughenden
- (ii) Whitehall
- (iii) Grove Manor
- (iv) Barbican
- (v) Widcombe
- (vi) College Green.

# Survey Sheet of Sewage Treatment Plant

	f STP						
Items			Specification				
Name of Plant		Hughenden Sewage Treatment Plant					
Construction	n Year / Month		year : month :			ith :	
Location (na	ame of street / aven	ue)	Relay Road				
Planned sewered population					inhabitants		
Design treatment capacity					m3/day		
Present sewered population					inhabitants		
Present inflo					m3/day		
Amount of e	electricity consump				kWh/day		
Sewage	Mode of collection	on system	Separate	Combined			
Collection				•			
	No. of inlet sewe	er pipelines at STP	Two (2	2) lines			
			( One (1)	by <u>gravity</u>	One (1)	by pressure	
	No. of lift P/S	No.	1	No. 1		No. 2	
	at STP	Number of pump		unit		unit	
	(if more than 2,	Each capacity		m3/min/unit		m3/min/uni	
	please use other	Design head		m		m	
	sheet)	Pump type	Self Priming C	Cen. Pump	Self Priming	Cen. Pump	
	Pump Manufacturer Gorman Rupp		Gorman Rupp				
		Pump bore diameter		mm		mm	
		Duty (in original)		unit		unit	
		Standby (in original)		unit		unit	
		Out-of-service		unit		unit	
Water	Par	ameter	Ir	nfluent		Effluent	
Quality	BOD	Design		mg/l		mg/l	
		Actual		mg/l		mg/l	
	SS	Design		mg/l		mg/l	
		Actual		mg/l		mg/l	
	T-N	Design		mg/l		mg/l	
		Actual		mg/l		mg/l	
	T-P	Design		mg/l		mg/l	
		Actual		mg/l		mg/l	
Fecal Coliform		Design		qty/ml		qty/ml	
		Actual		qty/ml		qty/ml	
Effluent Dis	charge	Outlet Point	Harbor	River	Gully	Other	
					<b>v</b>		
			Specify if other				
		Discharge	Gravity	Pump			
		Туре	<b>v</b>				

# •Composition of the facility

Check to select the method of treatment.

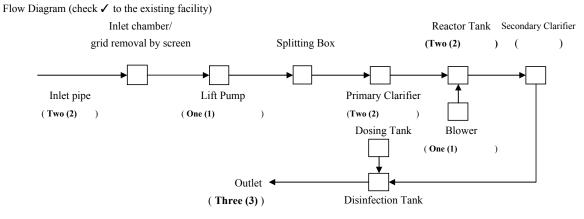
Treatment methods	Check
Standard Activated Sludge	
Oxidation Ditch	
Trickling Filter	
Contact stabilization pond	>
Lagoon (with / without aeration	)
the others	

Service condition of Treatment Units

Treatment Process Line	Check
No. of treatment units	Two (2)
No. of treatment units in service	Two (2)
No. of treatment units out of servic	Zero (0)

#### Service condition of Blowers

Treatment Process Line	Check
No. of blowers in service	One (1)
No. of blowers out of service	Zero (0)



Check to select the method of sludge treatment.

Treatment methods	Check
Thickening	
Digesting	<
Dewatering	
Drying	<
the others	

• The organization of STP

Position	Number of persons	
Site Manager	persons	
Operator	One (1)	persons
Service / Maintenance	One (1)	persons
Water quality test expert		persons
Office worker		persons
others (security, landscaper)		persons

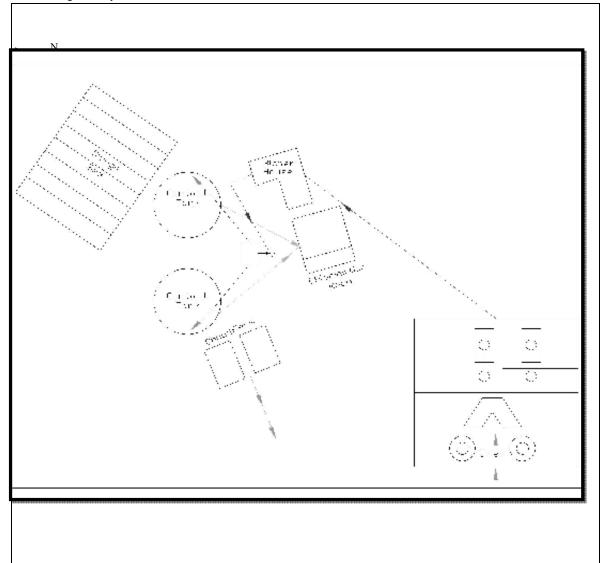
Items	Contents				
Working hours (plant operation	24	hrs (from 7	to <b>3</b>	) 3 - 11	
Work shift formation	2	shift with <b>Two</b> g	groups (	Two person per group)	

Any chemical for wastewater treatment?				Yes	No
				2	
If yes, how much and what kind ?					
The kind of chemicals			Amount of use		
Chlorine (Tyr Gas				L/day	
Flocculants				L/day	
the others (	)			L/day	
Procurement of chemicals				Domestic	Import
(Duration of delivery	d	ays / weeks / n	nonths)		<b>~</b>
Frequency of power failure		No	rarely	sometime	often
Backup generator for emergency use				Yes	No
-r official to energency use					
Final disposal of sludge			Landfill	Reuse	the others
					<b>V</b>
Reuse of sludge if done currently			Composting	Materials	the others
e ,					<b>v</b>
Analysis of water quality				Once non desi	/ / <b></b>
Frequency of water quality analysis for effluent				Onse per day / week / m Randomly	
				Kand	omry
Procedure of water quality analysis	NWC Labora	atory	Outsource t	o local firm	the others
roceane of where quarty unarysis			Subsurve .		
Maintenance					
				D 1 1	Irregular basi
Frequency of check / maintenance activity				Regular basis	integuiai ous
	0	nce per da	ays / weeks / mont	-	
Frequency of check / maintenance activity (How long interval, if regular basis		1	ays / weeks / mont	hs)	•
Frequency of check / maintenance activity (How long interval, if regular basis Replacement of consumble parts (sealing parts f		1	ays / weeks / mont	hs) T Yes	No
Frequency of check / maintenance activity (How long interval, if regular basis		1	ays / weeks / mont	hs)	•
Frequency of check / maintenance activity (How long interval, if regular basis Replacement of consumble parts (sealing parts f		1	ays / weeks / mont	hs) T Yes	No
Frequency of check / maintenance activity (How long interval, if regular basis Replacement of consumble parts (sealing parts f (Frequency of replacen	or pump	1		hs) Yes	No
Frequency of check / maintenance activity (How long interval, if regular basis Replacement of consumble parts (sealing parts f (Frequency of replacen Procurement of spre parts (Duration of delivery	or pump	)		hs) Yes Domestic	No Import
Frequency of check / maintenance activity (How long interval, if regular basis Replacement of consumble parts (sealing parts f (Frequency of replacen Procurement of spre parts	or pump	)		hs) Yes	No Import

If any issues for improvements of the assets and O&M of facility.

The current issues that this treatment plant undergoes is the absence of a generator in-case of power failures. The infrastructure of the stabilization tanks needs improvement.

• Scketch of general layout





The above Picture displays the general view of the facility



The above picture displays the inlet point and outlet point of the facilility; Wet well, Clarifier, Automatic level Switch









The above pictures depict the chlorination room and the blower inside their respective housings









The above images depict the active contact tanks and the splitter box at the treatment plant

# Survey Sheet of Sewage Treatment Plant

	STP		1			
Items			Specification			
	Name of Plant			Whitehall Sewage Treatment Plant		
Construction Year / Month		year	r :	month	:	
Location (na	me of street / aven	ue)	Victoria Court	t		
Planned sewe	Planned sewered population				inhabitants	
Design treatment capacity				m3/day		
Present sewered population		inhabitants				
Present inflow rate				m3/day		
Amount of el	lectricity consumption	tion			kWh/day	
Sewage Collec∏ n <b>⊽</b>	Mode of collection	on system	Separate	Combined		
	No. of inlet sewe	r pipelines at STP	One (	1) lines		
			( One (1)	by <u>gravity</u>		by pressure
	No. of lift P/S	No.	1	No. 1	Ν	No. 2
	at STP	Number of pump		unit		unit
	(if more than 2,	Each capacity		m3/min/unit		m3/min/uni
please use other sheet)		Design head		m		m
		Pump type	Self Priming C	Cen. Pump		
		Pump Manufacturer	Gorman Rupp	)		
		Pump bore diameter		mm		mm
		Duty (in original)		unit		unit
		Standby (in original)		unit		unit
		Out-of-service		unit		unit
Water	Par	ameter	Ir	ıfluent	Ef	fluent
Quality	BOD	Design		mg/l		mg/l
		Actual		mg/l		mg/l
	SS	Design		mg/l		mg/l
		Actual		mg/l		mg/l
	T-N	Design		mg/l		mg/l
		Actual		mg/l		mg/l
	T-P	Design		mg/l		mg/l
		Actual		mg/l		mg/l
	Fecal Coliform	Design		qty/ml		qty/ml
		Actual		qty/ml		qty/ml
Effluent Disc	charge	Outlet Point	Harbor	River	Gully	Other
			Specify if other	: ( <b>(Sea)</b>		
		Discharge	Gravity	Pump		
		Туре		÷		

·Composition of the facility

Check to select the method of treatment.

Treatment methods	Check
St: lard Activated Sludge	
O <sup>2</sup> ation Ditch	
Tr iling Filter	
Cover act stabilization pond	
La on (with / without aeration)	)
thers there are a second s	

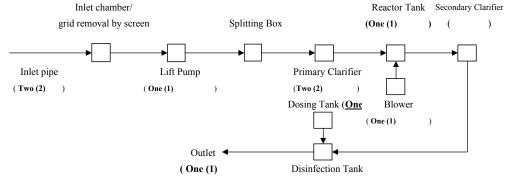
Service condition of Treatment Units

Treatment Process LineCheckNo. of treatment unitsOne (1)No. of treatment units in serviceOne (1)No. of treatment units out of serviceZero (0)

Service condition of Blowers

Treatment Process Line	Check
No. of blowers in service	One (1)
No. of blowers out of service	Zero (0)

Flow Diagram (check  $\checkmark$  to the existing facility)



Check to select the method of sludge treatment.

Treatment methods	Check	
Th ening		
Di ting		
De tering		
Dı 🗖 g		
the hers		Extended Aeration

The organization of STP

Position	Number of persons	0TM
Site Manager	persons	TODITE
Operator	persons	I CAL
Service / Maintenance	persons	
Water quality test expert	persons	T COL
Office worker	persons	any
others (security, landscaper)	persons	

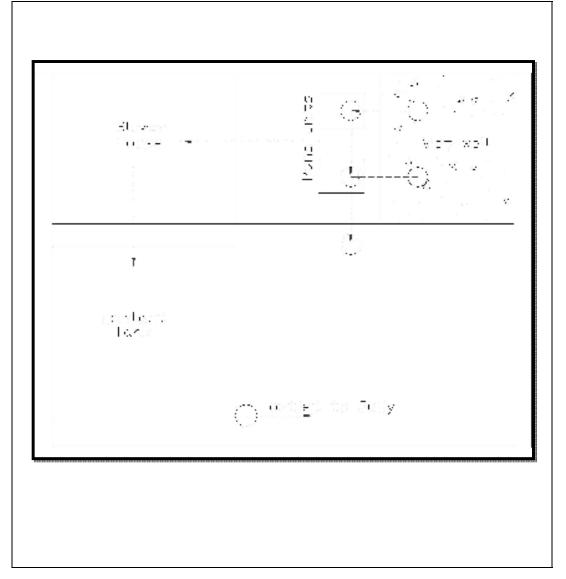
Items	Contents
Working hours (plant operation)	hrs (from to )
Work shift formation	shift with groups ( person per group)

E E				
Any chemical for wastewater treatment?			Yes	No
			105	110
If yes, how much and what kind ?				
The kind of chemicals		Amount of use		]
Chlorine (Typ Gas		3.2	L/day	
Flocculants			L/day	
the others (	)		L/day	
				1
Procurement of chemicals			Domestic	Import
(Duration of delivery $\Box \nabla$	days / weeks / m	onths)		
Frequency of power failure	No	rarely	sometime	often
Backup generator for emergency use			Yes	No
Final disposal of sludge		Landfill	Reuse	the others
		n.		
Reuse of sludge if done currently		Composting	Materials	the others
•Analysis of water quality				
Frequency of water quality analysis for effluent				/ week / month
			Rand	lomly_
Deceder of store with such size NWC La	h anatam.	Outeeuree	to local firm	de edene
Procedure of water quality analysis NWC La	boratory	Outsource		the others
• Maintenance				
Frequency of check / maintenance activity			Regular basis	Irregular basis
(How long interval, if re liv asis	Once per da	ys / weeks / mont	-	integular busis
	once per um	.jo, needo, mone		
Replacement of consumble parts (sealing parts for pump	)		Yes	No
(Frequency of replacen $\Box \checkmark$	,			
			1	
Procurement of spre parts			Domestic	Import
(Duration of delivery $\Box \nabla$	days / weeks / m	onths)		-
			•	
Procedure of repair			NWC	Outsource

If any issues for improvements of the assets and O&M of facility.

There is evidence of squatting taking place on the compund. There is severe overgrowth taking place on the on the site.

·Scketch of general layout



- · Photographs and comments of the site condition
- Overall view of the site layout (2-3photos)
- Lift pump facilities (general, pump unit, control panel, sump)
- Blower house (general, blower unit)
- Tanks (outside, inside)
- Clarifier (outside, inside)
- Disinfection tank, dosing tank (general for each facility)
- Comments on color, odor of sewage





The above pictures depict the general over view of the facility at the Victoria Court's Treatment Plant



The above pictures displays the electrical panels and controls along with the blower units, pump units and the chlorination u









The above pictures depict the contact tanks at the facility and the respective inlet point









the above pictures depicts the outlet point and gives an idea of the TS level the leaves this facility

Survey	Sheet of	Sewage	<b>Treatment Plant</b>
--------	----------	--------	------------------------

Items Name of Plant			Specification Grove Manor Sewage Treatment Plant			
						Construction Year / Month
Location (name of street / avenue)			Grove Manor	Court		
Planned sew	vered population		inhabitants			
Design treat	ment capacity				m3/day	
Present sew	ered population				inhabitants	
Present inflo	ow rate		m3/day			
Amount of e	electricity consump	tion			kWh/day	
Sewage	Mode of collection	on system	Separate	Combined		
Collection	No. of inlet sewe	r pipelines at STP	Τωο (	2) lines		
		. pipeilles at 511	Two (2)	by gravity		by pressure
	No. of lift P/S	No.		No. 1	N	0. 2
	at STP	Number of pump	Zero (0)	unit		unit
	(if more than 2,	Each capacity	()	m3/min/unit		m3/min/unit
	please use other	Design head		m		m
	sheet)	Pump type	Self Priming C	Centrifugal Pump		
	,	Pump Manufacturer				
		Pump bore diameter		mm		mm
		Duty (in original)		unit		unit
		Standby (in original)		unit		unit
		Out-of-service		unit		unit
Water	Par	ameter	In	nfluent	Eff	luent
Quality	BOD	Design		mg/l		mg/l
		Actual		mg/l		mg/l
	SS	Design		mg/l		mg/l
		Actual		mg/l		mg/l
	T-N	Design		mg/l		mg/l
		Actual		mg/l		mg/l
	T-P	Design		mg/l		mg/l
		Actual		mg/l		mg/l
	Fecal Coliform	Design		qty/ml		qty/ml
		Actual		qty/ml		qty/ml
Effluent Dis	ffluent Discharge Outlet Poin		Harbor	River	Gully	Other
			Specify if other			
		Discharge	Gravity	Pump		
		Туре	1			

# •Composition of the facility

Check to select the method of treatment.

Treatment methods	Check
Standard / ivated Sludge	
Oxidation 🔽 tch	
Trickling I ter	
Contact st: lization pond	
Lagoon (w 1 / without aeratio	on)
the others 🔽	
	Extended Aeration

Service condition of Treatment Units

Treatment Process Line	Check
No. of treatment units	One (1)
No. of treatment units in service	One (1)
No. of treatment units out of servic	Zero (0)

Service condition of Blowers

Treatment Process Line	Check
No. of blowers in service	One (1)
No. of blowers out of service	Zero (0)

Inlet chamber/ Reactor Tank Secondary Clarifier grid removal by screen Splitting Box 2 5 ( 1 1 Inlet pipe Lift Pump Primary Clarifier One inactive. 1 Dosing Tank Blower 1 Outlet ٢ ( One (1) Disinfection Tank

Check to select the method of sludge treatment.

Flow Diagram (check  $\checkmark$  to the existing facility)

Treatment methods	Check
Thickenin	
Digesting 🔽	
Dewaterin	
Drying	
the others	

• The organization of STP

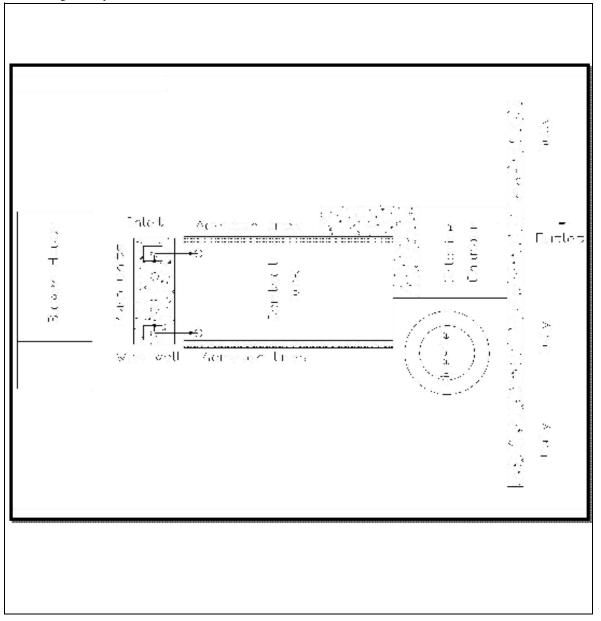
Position	Number of persons	Mo
Site Manager	persons	bile
Operator	persons	Team
Service / Maintenance	persons	Ē
Water quality test expert	persons	loes I
Office worker	persons	Daily
others (security, landscaper)	persons	Ch

	Items	Contents		
	Working hours (plant operation)	hrs (from to )		
Ī	Work shift formation	shift with groups ( person per group)		

Any chemical for wastewater treatment? Yes N	
If yes, how much and what kind ?	
If yes, how much and what kind ?	
If yes, how much and what kind ?	)
The kind of chemicals Amount of use	
Chlorine (Tyr Gas 3.2 L/day	
Flocculants L/day	
the others ( ) L/day	
Procurement of chemicals Domestic Imp	ort
(Duration of delivery 🔽 🔽 days / weeks / months)	
r	
Frequency of power failure No rarely sometime oft	'n
Backup generator for emergency use Yes N	)
Final disposal of sludge Landfill Reuse the of	hers
Reuse of sludge if done currently Composting Materials the of	
	ners
• Analysis of water quality	
Frequency of water quality analysis for effluent Onse per day / week / n	onth
Randomly	onui
Kandonity	
Procedure of water quality analysis NWC Laboratory Outsource to local firm the of	hers
	ners
• Maintenance	
Frequency of check / maintenance activity Regular basis Irregula	r basis
(How long interval, if regular basis $\Box$ $\bigtriangledown$ Once per days / weeks / months)	
Replacement of consumble parts (sealing parts for pump) Yes N	5
(Frequency of replacen 🔽 🔽	
Procurement of spre parts Domestic Imp	ort
(Duration of delivery days / weeks / months)	
Procedure of repair NWC Outso	urce

If any issues for improvements of the assets and O&M of facility.

·Scketch of general layout





The above pictures depicts the over view of the facility at the grove manor treatment plant



The above displays the digester, the chlorination room and chamber along with the outlet which runs to the adjacent gully



The above pictures displays the control panels at the grove manor treatment facility

# Survey Sheet of Sewage Treatment Plant

nformation o						
Items		Specification				
Name of Plant			Barbican Sewage	Treatment Pla	nt	
Construction Year / Month		year	•	month	:	
Location (na	me of street / aven	ue)	Barbican Road	l		
Planned sew	ered population				inhabitants	
Design treat	ment capacity		m3/day			
Present sewe	ered population		inhabitants			
Present inflo	ow rate		m3/day			
Amount of e	electricity consump	tion			kWh/day	
Sewage	Mode of collection	on system	Separate	Combined		
Collection						
	No. of inlet sewe	r pipelines at STP	One (1	) lines		
			( One (1)	by <u>gravity</u>		by pressure
	No. of lift P/S	No.	N	No. 1	N	Jo. 2
	at STP	Number of pump	Zero (0)	unit		unit
	(if more than 2,	Each capacity		m3/min/unit		m3/min/unit
	please use other	Design head		m		m
	sheet)	Pump type				
		Pump Manufacturer				
		Pump bore diameter		mm		mm
		Duty (in original)		unit		unit
		Standby (in original)		unit		unit
		Out-of-service		unit		unit
Water	Par	ameter	In	fluent	Ef	fluent
Quality	BOD	Design		mg/l		mg/l
		Actual		mg/l		mg/l
	SS	Design		mg/l		mg/l
		Actual		mg/l		mg/l
	T-N	Design		mg/l		mg/l
		Actual		mg/l		mg/l
	T-P	Design		mg/l		mg/l
		Actual		mg/l		mg/l
	Fecal Coliform	Design		qty/ml		qty/ml
		Actual		qty/ml		qty/ml
Effluent Dis	charge	Outlet Point	Harbor	River	Gully	Other
					-	
			Specify if other	( (Sea)		
		Discharge	Gravity	Pump		
		Туре	-	*		

## ·Composition of the facility

Check to select the method of treatment.

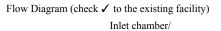
Treatment methods	Check
Standard / ivated Sludge	
Oxidation 🔽 tch	
Trickling I ter	
Contact st: lization pond	
Lagoon (w 1 / without aeratio	n)
the others 🔽	
	Extended Aeration

Service condition of Treatment Units

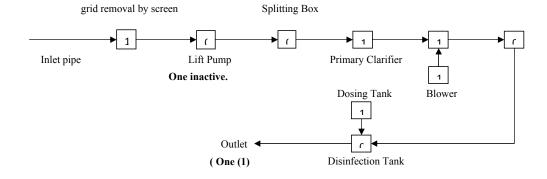
Treatment Process Line	Check
No. of treatment units	One (1)
No. of treatment units in service	One (1)
No. of treatment units out of service	Zero (0)

#### Service condition of Blowers

Treatment Process Line	Check
No. of blowers in service	One (1)
No. of blowers out of service	Zero (0)



Reactor Tank Secondary Clarifier



# Check to select the method of sludge treatment.

Treatment methods	Check
Thickenin	
Digesting 🔽	
Dewaterin	
Drying	
the others	

# The organization of STP

Position	Number of persons	Mo
Site Manager	persons	bile
Operator	persons	Team
Service / Maintenance	persons	
Water quality test expert	persons	oes I
Office worker	persons	Daily
others (security, landscaper)	persons	Ch

Items	Contents		
Working hours (plant operation)	hrs (from to )		
Work shift formation	shift with groups ( person per group)		

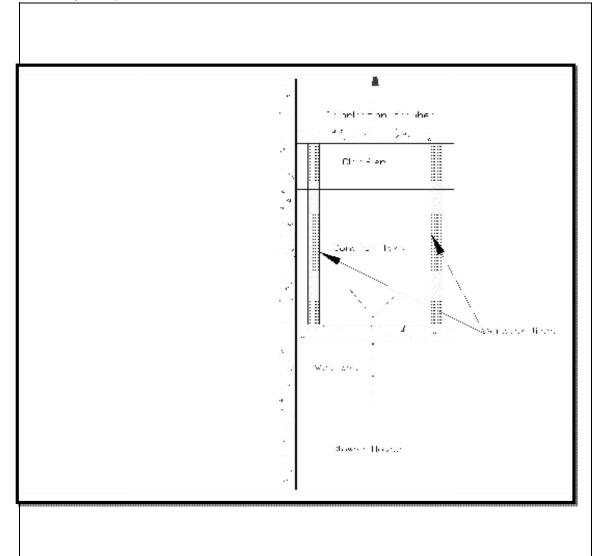
Any chemical for wastewater treatment?			Yes	No
If yes, how much and what kind ?				
The kind of chemicals		Amount of use		
Chlorine (Tyr Gas		3.2	L/day	
Flocculants			L/day	
the others (	)		L/day	
Procurement of chemicals			Domestic	Import
(Duration of delivery	days / weeks / m	nonths)		r · ·
Frequency of power failure	No	rarely	sometime	often
Backup generator for emergency use			Yes	No
			100	110
			I	
Final disposal of sludge		Landfill	Reuse	the others
Reuse of sludge if done currently		Composting	Materials	the others
		composing		
Analysis of water quality				
Frequency of water quality analysis for effluent			Onse per day /	
			Rand	<u>omly</u>
Procedure of water quality analysis NWC La	boratory	Outsource	to local firm	the others
	5			
•Maintenance			D 1 1	x 1 1 '
Frequency of check / maintenance activity (How long interval, if regular basis	Once per da	ays / weeks / mont	Regular basis	Irregular basis
	Once per da	tys / weeks / mon	uis)	
Replacement of consumble parts (sealing parts for pump	)		Yes	No
(Frequency of replacen $\Box$				
			D	Ť ·
Procurement of spre parts	dave / wooks / m	onthe)	Domestic	Import
(Duration of delivery	days / weeks / m	ionuis)		
Procedure of repair			NWC	Outsource

If any issues for improvements of the assets and O&M of facility.

There is no lift pump present on site.

The discharge point is directly in the gully, even if the effluent is unsatisfactory.

Scketch of general layout





The general overview of the facility at the barbican treatment plant





The above pictures show the contact tank and the aeration lines, and blower unit physical condition inside the blower house





The above pictures are to depicts the physical quality of the treated water as it leaves the barbican facility

# Survey Sheet of Sewage Treatment Plant

	τ.			a .	or .:	
Items		Specification				
Name of Plant		Widcombe Sewage Treatment Plant				
Construction Year / Month		year		month	:	
	ame of street / aven	ue)	Ravinia Road			
	vered population				inhabitants	
Design treat	ment capacity				m3/day	
Present sew	ered population				inhabitants	
Present inflo	ow rate				m3/day	
Amount of e	electricity consump	tion			kWh/day	
Sewage Coll₁ i v	Mode of collection	on system	Separate	Combined		
	No. of inlet sewe	r pipelines at STP	One (1	I) lines		
			( One (1)	by gravity		by pressure
	No. of lift P/S	No.		No. 1	N	Jo. 2
	at STP	Number of pump	One (1)	unit		unit
	(if more than 2,	Each capacity		m3/min/unit		m3/min/unit
	please use other	Design head		m	-	m
	sheet)	Pump type	Self Priming C	entrifugal Pump	-	
		Pump Manufacturer	_		-	
		Pump bore diameter		mm		mm
		Duty (in original)		unit		unit
		Standby (in original)		unit	-	unit
		Out-of-service		unit		unit
Water	Par	ameter	In	fluent	Ef	fluent
Quality	BOD	Design		mg/l	+	mg/l
		Actual		mg/l		mg/l
	SS	Design		mg/l		mg/l
		Actual		mg/l	+	mg/l
	T-N	Design		mg/l	1	mg/l
		Actual		mg/l	-	mg/l
	T-P	Design		mg/l	1	mg/l
		Actual		mg/l	-	mg/l
	Fecal Coliform	Design		qty/ml	+	qty/ml
		Actual		qty/ml		qty/ml
Effluent Dis	charge	Outlet Point	Harbor	River	Gully	Other
	•				0,	
			Specify if other	( (Sea)		
		Discharge	Gravity	Pump		
		Туре		r		

# •Composition of the facility

Check to select the method of treatment.

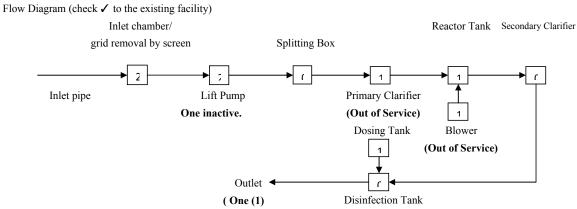
Treatment methods	Check
S Idard Activated Sludge	
C dation Ditch	
T kling Filter	
( tact stabilization pond	
I oon (with / without aeration	)
tl others	

Service condition of Treatment Units

Treatment Process Line	Check
No. of treatment units	One (1)
No. of treatment units in service	One (1)
No. of treatment units out of servic	Zero (0)

Service condition of Blowers

Treatment Process Line	Check
No. of blowers in service	One (1)
No. of blowers out of service	Zero (0)



Check to select the method of sludge treatment.

Treatment methods	Check
<b>∏</b> kening	
Iv esting	
I ratering	
I ing	
tl thers	

• The organization of STP

Position	Number of persons		
Site Manager		persons	
Operator	One (1)	persons	
Service / Maintenance	One (1)	persons	
Water quality test expert		persons	
Office worker		persons	
others (security, landscaper)		persons	

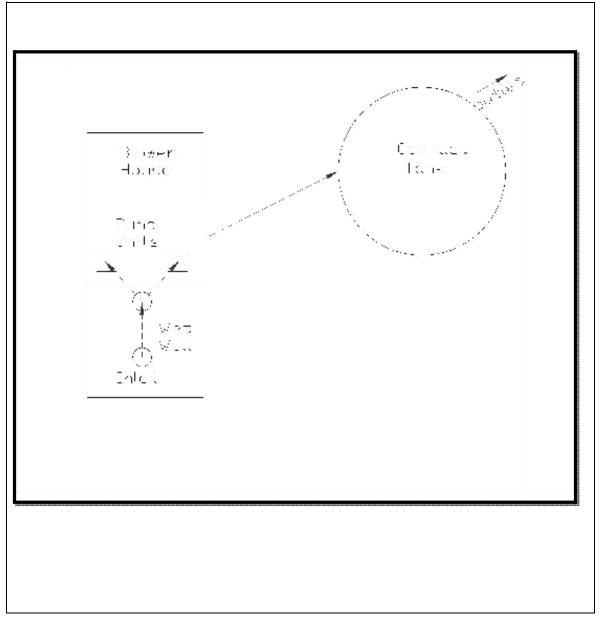
Items		Contents
Working hours (plant operation	24	hrs (from to )
Work shift formation	2	shift with groups ( person per group)

Any chemical for wastewater treatment?			Yes	No	
			105	110	
If yes, how much and what kind ?					
The kind of chemicals		Amount of use			
Chlorine (Tyr Gas			L/day		
Flocculants			L/day		
the others (	)		L/day		
	7		L/udy		
Procurement of chemicals			Domestic	Import	
(Duration of delivery	days / weeks / n	nonths)		-	
	5	,	<u>I</u>		
Frequency of power failure	No	rarely	sometime	often	
		5			
Backup generator for emergency use			Yes	No	
Final disposal of sludge		Landfill	Reuse	the others	
Reuse of sludge if done currently		Composting	Materials	the others	
•Analysis of water quality					
Frequency of water quality analysis for effluent			Onse per day	week / month	
			Rand	omly	
<u></u>			1		
Procedure of water quality analysis NWC La	boratory	Outsource	to local firm	the others	
	-				
<u></u>					
Maintenance					
Frequency of check / maintenance activity			Regular basis	Irregular basis	
(How long interval, i v ar basis Once per days / weeks / mon			1		
	*	-	,		
Replacement of consumble parts (sealing parts for pump	)		Yes	No	
(Frequency of replaci 🔽					
			1		
Procurement of spre parts			Domestic	Import	
(Duration of delivery days / weeks / months)				*	
	-		1		
Procedure of repair	Procedure of repair			Outsource	
<u></u>			ı		

If any issues for improvements of the assets and O&M of facility.

The site will be decommissioned in a matter of months, therefore a lot of the equipment is out of commission.

Scketch of general layout





The sign which indicates the facility purpose





The above pictures depicts the pump units and the blower house at the facility





The pictures above depicts the electrical panels inside the facility's housing





The above pictures depict the out of service contact tank at the facility

Survey	Sheet of	Sewage	<b>Treatment Plant</b>
--------	----------	--------	------------------------

	Items		Specification			
Name of Plant			College Green Sewage Treatment Plant			lant
	n Year / Month		yea		month	
	ame of street / aven	ue)	Hope Bouleva		monu	
	vered population		Hope Doulera		inhabitants	
	Design treatment capacity				m3/day	
-	ered population				inhabitants	
Present inflo					m3/day	
	electricity consump	tion			kWh/day	
Sewage	Mode of collection		Separate	Combined		
Colli i 🔽	No. of inlet sewe	r pipelines at STP	One (	(1) lines		
			( One (1)	by <u>gravity</u>		by pressure
	No. of lift P/S	No.		No. 1	N	o. 2
	at STP	Number of pump	One (1)	unit		unit
	(if more than 2,	Each capacity		m3/min/unit		m3/min/uni
	please use other	Design head		m		m
	sheet)	Pump type	Self Priming (	Centrifugal Pump		
		Pump Manufacturer	Gorman Rup	р		
		Pump bore diameter		mm		mm
		Duty (in original)		unit		unit
		Standby (in original)		unit		unit
		Out-of-service		unit		unit
Water	Par	ameter	I	nfluent	Eff	luent
Quality	BOD	Design		mg/l		mg/l
		Actual		mg/l		mg/l
	SS	Design		mg/l		mg/l
		Actual		mg/l		mg/l
	T-N	Design		mg/l		mg/l
		Actual		mg/l		mg/l
	T-P	Design		mg/l		mg/l
		Actual		mg/l		mg/l
	Fecal Coliform	Design		qty/ml		qty/ml
		Actual		qty/ml		qty/ml
Effluent Dis	-	Outlet Point	Harbor	River	Gully	Other
			Specify if othe	r ( <b>(Sea)</b>		
		Discharge	Gravity	Pump		
		Туре				

# •Composition of the facility

Check to select the method of treatment.

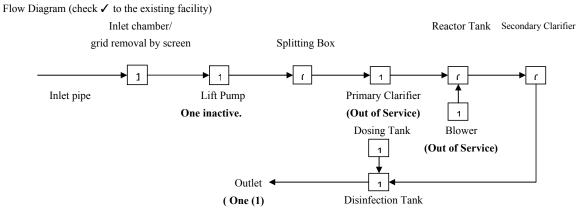
Treatment methods	Check
S Idard Activated Sludge	
( dation Ditch	
T kling Filter	
C tact stabilization pond	
I oon (with / without aeration	)
tl others	

Service condition of Treatment Units

Treatment Process Line	Check
No. of treatment units	One (1)
No. of treatment units in service	One (1)
No. of treatment units out of servic	Zero (0)

Service condition of Blowers

Treatment Process Line	Check
No. of blowers in service	One (1)
No. of blowers out of service	Zero (0)



Check to select the method of sludge treatment.

Treatment methods	Check
I <b>∏</b> ∶kening	
I sting	
I vatering	
I 🗸 ing	
tl others	

• The organization of STP

Position	Number of persons		
Site Manager		persons	
Operator	One (1)	persons	
Service / Maintenance		persons	
Water quality test expert		persons	
Office worker		persons	
others (security, landscaper)		persons	

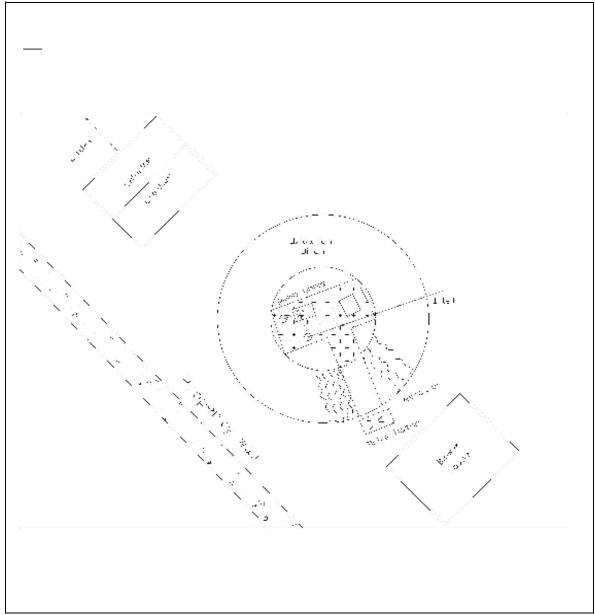
Items			Contents	
Working hours (plant operation	24	hrs (from	to	)
Work shift formation	2	shift with	groups (	person per group)

Any chemical for wastewater treatment? Yes No				
			100	110
If yes, how much and what kind ?				
The kind of chemicals	Amount of use			
Chlorine (Tyr Gas	3.2		L/day	
Flocculants			L/day	
the others (	)		L/day	
Procurement of chemicals			Domestic	Import
(Duration of delivery days / weeks / months)				
Frequency of power failure	No	rarely	sometime	often
			1	
Backup generator for emergency use			Yes	No
Final disposal of sludge		Landfill	Reuse	the others
Reuse of sludge if done currently		Composting	Materials	the others
•Analysis of water quality				
Frequency of water quality analysis for effluent Onse per day / week / month				
requester or water quarty anarysis for enruent			Randomly	
			<u>Itano</u>	<u>onny</u>
Procedure of water quality analysis NWC Laboratory Outsource			to local firm	the others
Kana Kana				
• Maintenance				
Frequency of check / maintenance activity			Regular basis	Irregular basis
(How long interval, i rational ar basis Once per days / weeks / mon			ths)	
Replacement of consumble parts (sealing parts for pump)			Yes	No
(Frequency of replac				
Procurement of spre parts		Domestic	Import	
(Duration of delivery days / weeks / months)				
			T	
Procedure of repair		NWC	Outsource	

If any issues for improvements of the assets and O&M of facility.

The site will be decommissioned in a matter of months, therefore a lot of the equipment is in disrepair.

Scketch of general layout



- · Photographs and comments of the site condition
- Overall view of the site layout (2-3photos)
- Lift pump facilities (general, pump unit, control panel, sump)
- Blower house (general, blower unit)
- Tanks (outside, inside)
- Clarifier (outside, inside)
- Disinfection tank, dosing tank (general for each facility)
- Comments on color, odor of sewage



The general over view of the college green waste water treatment plant









The above pictures depicts the drive motor, the blower (not working), Pumping units at the facility









The above pictures depicts the level of aeration that is achieved at the treatment plant









The above pictures depict the sludge bed, chlorination chamber, and the dosing tank









The above pictures depict the qaulity of the treated water that leaves the college green plant